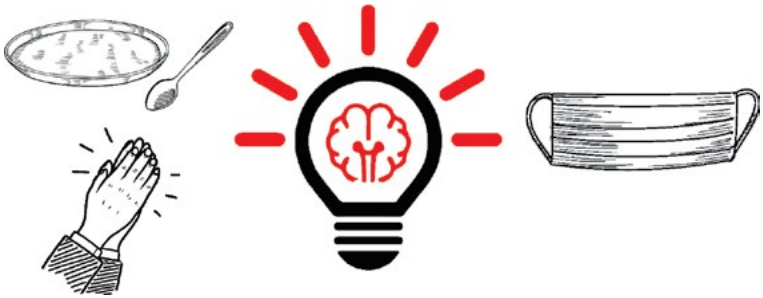
National Enlightenment Day - 5th April



Vaccinated to Death

3500+ Research Papers

Uncover the Truth of COVID-19 Vaccines

Dr. Biswaroop Roy Chowdhury

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Dedication

Dedicated to my angel daughter Ivy,
loving wife Neerja
&
caring parents
Shri Bikash Roy Chowdhury
Shrimati Lila Roy Chowdhury

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INTRODUCTIOIN

Enlightenment Day- 5th April

April 5th, let's celebrate it as Enlightenment Day—a day to "turn on the bulb" of your mind. It also marks the launch of the book Vaccinated to Death. You might be wondering, what is this new day all about? Let me explain.

Imagine a scenario where every citizen of India decides to switch off their house lights simultaneously for a few moments. You might think, "What difference would that make?" The impact, however, would be significant—India's entire electrical network, including power plants and grids, could suffer severe damage.

You have already made this mistake once. Let me remind you—the date was April 5th, 2020. At precisely 9 PM, you switched off the lights in your homes for nine minutes. Then, you either turned on torches or lit candles and diyas. This activity came at a heavy cost for India. To manage the fluctuation in power demand, the government had to spend estimatedly 300 crore rupees and execute careful planning.

No electrical network in the world is designed to handle such unpredictable fluctuations. Power grids operate on consistent patterns of electricity usage over the years. A sudden surge or drop in demand can lead to severe damage and even the breakdown of electrical grids.

But the real question is—why did we do this? To understand, let's take a quick look back. On March 22nd, 2020, you participated in a similar activity—clapping and banging utensils. Then, on April 6th, 2020, you took part in another new practice—wearing masks whenever you stepped out, with some people even wearing them inside their homes.

You need to understand that the intention behind these activities was never to eliminate COVID-19. The real purpose was something else—it was a psychological technique known as Shaping or Obedience Training.

Consider this example: Suppose you want someone to rob a bank, but you know they would never agree outright. To prepare them for the heist, you need to condition them gradually. You might start by convincing them to steal a toffee from a grocery store—just for fun, with the promise that it will be returned later. They agree to participate since no actual harm is done, and it doesn't feel like a crime.

Over time, you continue giving them slightly bigger tasks, each pushing their limits a little further. Slowly but surely, their mindset shifts, and one day, they are ready to commit the full-scale crime—robbing a bank. This is how mental conditioning works—it happens in stages, over time, preparing individuals for something much bigger without them even realizing it.

To truly grasp the impact of Obedience Training in our lives, we need to understand how it has been applied to us. Let's take a trip back to January 2020. News channels falsely propagated a terrifying new threat emerging from Wuhan, China—a so-called deadly virus named Coronavirus. The media painted a grim picture, showing how this virus was claiming lives and spreading fear across the world.

However, I warned my followers early (Jan 2020) on through the Khaleej Times, The Statesman, Dainik Bhaskar, my books, videos, and social media platforms. I made it clear that this was part of a larger, pre-planned agenda. I told everyone that what was being labeled as a deadly virus was, in reality, nothing more than the common flu—later renamed COVID-19.

At that time, I advised everyone to avoid visiting doctors and instead follow a simple 3-step Flu Diet, which included coconut water and citrus fruits. This is an evidence-based diet that I have successfully used with my patients for many years. While the propaganda-driven media spread fear, I was focused on spreading awareness.

Thus, your Obedience Training had begun—you were given tasks to follow from home, conditioning you step by step.

Now, let's uncover the real purpose behind this conspiracy:

1. Depopulation – A strategy to control the global population.

2. Economic Shift – A system designed to make the rich even richer while pushing the poor further into poverty. To understand this in detail, read the Oxfam Report 2021. ***(www.biswaroop.com/oxfam)***

Your mind was trained and conditioned to believe that this virus was dangerous and that vaccination was the only way to protect yourself. The success of the mass vaccination drive proved how effective Obedience Training had been.

On **June 2nd, 2020**, when I opened my laptop, I discovered that all my Twitter, Facebook, YouTube, and Instagram accounts had been completely erased. I was wiped off the internet—for the "crime" of spreading awareness and truth.

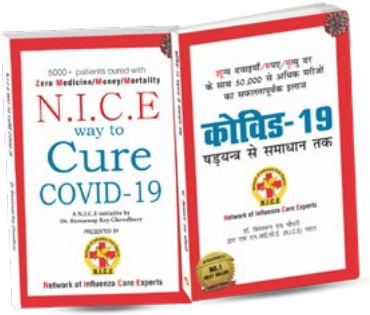
Fortunately, by then, I had already trained approximately 750 N**.I.C.E. (Network of Influenza Care Experts)** across India. These experts were made aware of the conspiracy and the dangers of prolonged mask usage, which causes hypercapnia—a condition where you end up breathing in the carbon dioxide you exhale. This leads to flu-like symptoms such as fever and body aches. Doctors would then misdiagnose these symptoms as COVID-19 and begin unnecessary treatments.

By June, these **N.I.C.E. experts** were actively spreading awareness. We established a Flu Center in Ahmednagar, where we treated **60,000 patients**—without a single death. No medicines were given; only the 3-Step Flu Diet was followed. Even the **Ayush Ministry** recognized this diet.*(Refer to Section-III of this book to read the observation study)*

Wearing masks, practicing social distancing, and using sanitizers were all part of your Obedience Training—and you followed them without question. You blindly obeyed these protocols without considering their side effects or actual benefits.

For example, frequent use of hand sanitizers destroys the friendly bacteria on your hands, essential for protecting you from infections.

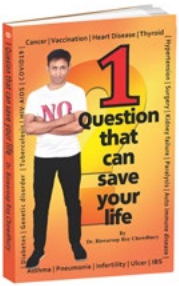
I have written books on this subject, backed by scientific research, including *N.I.C.E. Way to COVID-19* and *COVID-1981*: Virus and the Vaccine.



As early as 2020, I warned that future vaccines would lead to serious health issues such as c**ardiac arrest, heart attacks, paralysis, infertility,** and many other diseases. Through my books, our COVID Center, and videos shared on WhatsApp, we worked relentlessly to spread awareness.

Ten days before the vaccine was launched, on **January 6, 2021**, my team of **111 doctors** and I released a joint statement warning that no one should take the vaccine, as it was a tool for mass harm. This statement was sent to **5,000 high-ranking officials across India**, including the **Prime Minister's Office, Health Ministry, Chief Ministers, and MLAs,** to save millions of lives. Unfortunately, we were unable to stop what followed.

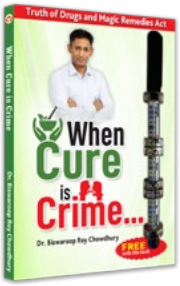
In January 2021, we published a book titled *One Question That Can Save Your Life,* which includes this joint statement in its final segment. This book is available on **Amazon and in bookstores.**



The vaccine was part of a larger agenda—**depopulation and economic** shift. The effects of Obedience Training are evident today, as various health issues have doubled.

In **September 2023**, we (led by Dr Namita Gupta) surveyed **10,000 vaccinated young individuals in Meerut** to analyze the impact of the vaccine. The findings from this **observation study** are available at

our office for anyone who wishes to review them. The study revealed alarming trends, including a rise in **infertility, erectile dysfunction, menstrual cycle disruption, PCOD, and COPD.**

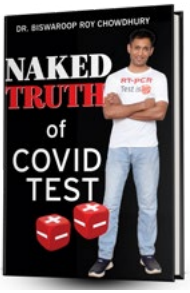


In 2023, we published another book, *When Cure Is Crime,* which documents this observation study in detail.

It is crucial to always k**eep the bulb of your mind switched on**. Understanding the **sequence of this conspiracy** will help you safeguard yourself in the future.

Even today, some people still believe that **Coronavirus is a real and dangerous virus** that has claimed thousands of lives. But why were people actually dying? There are two key reasons:

1. Hospital Admissions & False Positives



During the pandemic, a **new rule** was enforced: a**ny patient admitted to a hospital had to be tested for Coronavirus**. However, the **COVID-19 test kits** were flawed—they were designed to show false positives **10%–30% of the time**. I exposed this in my book, *The Naked Truth of COVID Test,* which reveals the truth about the **RT-PCR test scam.**

Hospitals **prioritized testing over actual treatment**.
Even if someone was admitted due to a heart attack or chest pain, they were first subjected to an **RT-PCR test.** If they tested positive (even falsely), they were given **banned medicines like Remdesivir, Retinovel, and Lepinovel** (FAERS identified high association between Remdesivir and Acute kidney injury with fatality of 36.45%). Many people died due to the side effects of these drugs, yet their deaths were falsely counted as COVID-19 fatalities. The excess deaths reported by the media were not due to the virus—but due to these **harmful treatments.**

2. Government Protocols for Death Reporting

The second reason is even more shocking. On **May 10, 2020**, the **ICMR (Indian Council of Medical Research)** and the Government of India issued an 11-page protocol detailing how deaths should be reported *(Refer to Section III of this book).*

The guidelines stated:

- If a deceased patient's RT-PCR test was positive, the cause of death must be listed as COVID-19, even if they actually died from a heart attack, cancer, or any other condition.
- Even if the RT-PCR test was negative, the death could still be labeled as COVID-19.

This manipulated data i**nflated COVID-19 death counts** and spread unnecessary fear.

From 2020 to 2021, you might recall that deaths from heart attacks and other ailments seemingly disappeared. No matter how many people died, the only cause of death reported was COVID-19. This was how the propaganda media manipulated the numbers, creating an atmosphere of fear and panic across India.

This fear had psychological and physiological effects on people. When someone is in a state of panic, their SpO_2 (oxygen saturation) naturally drops. At this moment, they introduced the oximeter into your life.

The Oximeter Panic & Oxygen Crisis

Before 2020, had you ever heard of an **oximeter** or felt the need to **keep one at home**? Probably not. Yet, at some point, we have all faced panic situations before 2020, and our **SpO_2** levels naturally fluctuated—falling temporarily but returning to normal on their own. Even when you had a fever or cough before 2020, your **oxygen levels would drop slightly but recover without intervention.**

However, from **2020 onward, you were miseducated**—taught to **constantly monitor your oxygen levels**. This created widespread panic,

leading people to rush to hospitals or stockpile oxygen cylinders at home out of fear of dying.

The Role of Ventilators in Patient Deaths

Once patients reached the hospital, ventilators did the rest of the damage.

- **98% of patients put on ventilators did not survive.**
- The remaining **2% who survived eventually died within a few months.**

Ventilators, instead of saving lives, **worsened patients' conditions**, leading to a higher death rate. This entire cycle—from f**earmongering to hospitalization to ventilator use—was a planned sequence.**

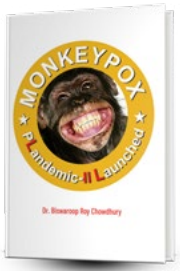
When you put all the pieces together, it becomes clear that everything was carefully planned and you were misled.

A study conducted in March 2025 highlights the effects of the COVID-19 vaccine on people. It found that, on average, existing health conditions—such as cancer, heart disease, and other ailments—have doubled since vaccination (as a result of COVID-19 vaccine (read the first research paper in Section-I).

In this book *Vaccinated to Death,* you will find research papers from around the world detailing the impact of the COVID-19 vaccine on health. The first section includes a research paper from March 2025 that presents these findings. You may have started noticing changes in your health and questioning whether your body is the same as before getting vaccinated. The answer is no. Many people are experiencing increased weakness, erectile dysfunction, and other health issues. The long-term effects of the vaccine have impacted us all in different ways, leading to a decline in overall well-being.

In July 2022, there was yet another attempt to mislead the public. News channels began broadcasting alarming reports about a new threat in India called *'Monkeypox.'* Discussions about lockdowns started in

various parts of the country, and in Chandigarh, schools were even shut down.



When my team and I noticed that the same pattern was repeating, we decided to take action. On August 2022, we released a book titled *Monkeypox – Plandemic 2 Launched.*

In this book, I exposed the entire conspiracy, detailing the plan and the people involved, backed by evidence and proof. You can download the book for free from my website ***(www.biswaroop.com/ebook).***

The game of deception continues. On January 6th, 2025, alarming news reports began circulating about the spread of the HMPV virus. Propaganda media started speculating whether another lockdown was imminent, reigniting the cycle of fear-mongering.

However, this time, our team was already prepared. On January 23rd, 2025, coinciding with Subhash Chandra Bose Jayanti, we released a book titled *HMPV Plandemic Launched.* This book again exposes the conspiracy, providing detailed evidence of the plan.

Remarkably, just one day after its release, on January 24th, 2025, news about the HMPV virus completely disappeared from the media. When they tried to introduce Monkeypox in 2022 and the HMPV virus in 2025, we uncovered their scheme both times, preventing them from creating another fear-driven crisis like the coronavirus pandemic.

Here it is important to mention that in the past also such conspiracy and organised crime is committed by the world pharma lobby, as it is happening since 45 years, fear mongering by connecting HIV to A.I.D.S. leading to gullible masses getting trapped in life long antiviral medication and social stigma. Read my book *"HIV-AID-the greatest lie of 21st century", to know the truth.*

You all need to be aware of these plans and conspiracies, which will be attempted to launch time and again. You can find close to 3500 research papers in this book, Vaccinated to Death, and in the last segment, you can find the ICMR circular released in 2020.

You cannot trust those doctors on whose advice you got vaccinated.

I have a question for you, if you take my book Vaccinated to Death and visit the same doctor who gave you the vaccination and show them the evidence, will they accept their mistake?

No, they will not! Now, can you trust doctors like this for any treatments and advice?

The best thing you can do in the current scenario is take charge of your health. You need to change your diet and lifestyle to counter the harmful effects of vaccine toxins in your body. You can refer to my book, The *World's Best: The D.I.P. Diet.*

By following this diet, you may be able to recover from the symptoms you have been experiencing after the Covid-19 vaccine.

For those who wish to explore my health protocols in greater depth—including Zero Volt Therapy, the Circadian Chart, the GRAD System, Fever Therapy for cancer patients, and more—you can enroll in the Correspondence/online **Certification Course in Integrated Medicine** at ***www.biswaroop.com/cim.*** This course equips you with the knowledge to treat yourself at home.

You can visit any of the **500+ BRC Clinic@Home clinics** spread across India if you need medical assistance. To find the nearest clinic, check the following link: ***www.biswaroop.com/clinic***

Lastly, remember that April 5th is Enlightenment Day—a day to "switch-on the bulb of your mind." On this day in 2020, you were deceived into switching off your lights, unknowingly causing disruptions in the country's electrical network. Remember this lesson to ensure you never fall into such traps again.

Section-I

Abstract of 400 research papers proving the deadly damage done by Covid-19 Vaccine.

Case Reports : J Clin Med. 2025 Mar 6;14(5):1767. doi: 10.3390/jcm14051767

Broad-Spectrum Adverse Events of Special Interests Based on Immune Response Following COVID-19 Vaccination: A Large-Scale Population-Based Cohort Study

Hong Jin Kim, Jee Hyun Suh, Min-Ho Kim, Myeong Geun Choi, Eun Mi Chun

PMCID: PMC11900331 PMID: 40095916

Abstract

Background/Objectives: Current studies on adverse events related to the COVID-19 vaccine have predominantly focused on severe, life-threatening side effects. However, numerous less severe but common adverse events (AEs) remain underreported and insufficiently investigated despite their potential impact. Methods: This population-based cohort study investigated the cumulative incidence rate (cIR) and risk of the broad-spectrum AEs of special interests (AESIs) based on immune response, including gynecological, dermatological, ophthalmological, otologic, and dental problems, following COVID-19 vaccination. Results: Among 4,203,887 individuals in Seoul, South Korea, the final analysis included 1,458,557 vaccinated subjects and 289,579 non-vaccinated subjects after the exclusion of underlying diseases. The cIR of AESIs for three months was significantly higher in vaccinated subjects than in non-vaccinated subjects, except for endometriosis. The vaccination significantly increased the risks of all the AESIs except for visual impairment. The risk of alopecia showed the highest HRs (HR [95% CI] = 2.40 [1.90–3.03]) among the AESIs following COVID-19 vaccination. Among the vaccinated subjects,

heterologous vaccination was associated with the increased risk of most of the AESIs. Conclusions: Our findings suggest that clinicians should closely recognize and follow up on various COVID-19 vaccine-related AEs due to their unknown impact, even if they may not be serious at present.

Case Reports : Ocul Immunol Inflamm

doi: 10.1080/09273948.2022.2026978. Epub 2022 Jan 20.

Bilateral Sequential Acute Macular Neuroretinopathy in an Asian Indian Female with β Thalassemia Trait following (Corona Virus Disease) COVID-19 Vaccination and Probable Recent COVID Infection - Multimodal Imaging Study

Srinivasan Sanjay , Santosh Gopi Krishna Gadde, Naresh Kumar Yadav, Ankush Kawali , Aditi Gupta, Rohit Shetty, Padmamalini Mahendradas

PMID: 33559733 PMCID: PMC7871141 DOI: 10.1007/s00403-021-02190-6

Abstract

We present the first reported cases of delayed inflammatory reactions (DIR) to hyaluronic acid (HA) dermal fillers after exposure to the COVID-19 spike protein. DIR to HA is reported to occur in the different scenarios including: secondary to poor injection technique, following dental cleaning procedures, following bacterial/viral illness, and after vaccination. In this report of 4 cases with distinct clinical histories and presentations: one case occured following a community acquired COVID-19 infection, one case occured in a study subject in the mRNA-1273 clinical phase III trial, one case occurred following the first dose of publically available mRNA-1273 vaccine (Moderna, Cambridge MA), and the last case occurred after the second dose of BNT162b2 vaccine (Pfizer, New York, NY). Injectable HA dermal fillers are prevalent in aesthetic medicine for facial rejuvenation. Structural modifications in the crosslinking of HA fillers have enhanced the products' resistance to enzymatic breakdown and thus increased injected product longevity, however, have also led to a rise in DIR. Previous, DIR to HA dermal fillers can present clinically as edema with symptomatic and

inflammatory erythematous papules and nodules. The mechanism of action for the delayed reaction to HA fillers is unknown and is likely to be multifactorial in nature. A potential mechanism of DIR to HA fillers in COVID-19 related cases is binding and blockade of angiotensin 2 converting enzyme receptors (ACE2), which are targeted by the SARS-CoV-2 virus spike protein to gain entry into the cell. Spike protein interaction with dermal ACE2 receptors favors a pro-inflammatory, loco-regional TH1 cascade, promoting a CD8+T cell mediated reaction to incipient granulomas, which previously formed around residual HA particles. Management to suppress the inflammatory response in the native COVID-19 case required high-dose corticosteroids (CS) to suppress inflammatory pathways, with concurrent ACE2 upregulation, along with high-dose intralesional hyaluronidase to dissolve the inciting HA filler. With regards to the two vaccine related cases; in the mRNA-1273 case, a low dose angiotensin converting enzyme inhibitor (ACE-I) was utilized for treatment, to reduce pro-inflammatory Angiotensin II. Whereas, in the BNT162b2 case the filler reaction was suppressed with oral corticosteroids. Regarding final disposition of the cases; the vaccine-related cases returned to baseline appearance within 3 days, whereas the native COVID-19 case continued to have migratory, evanescent, periorbital edema for weeks which ultimately subsided.

Review: Arch Dermatol Res . 2022 Jan;314(1):1-15.

doi: 10.1007/s00403-021-02190-6. Epub 2021 Feb 9.

"COVID-19/SARS-CoV-2 virus spike protein-related delayed inflammatory reaction to hyaluronic acid dermal fillers: a challenging clinical conundrum in diagnosis and treatment"

Girish Gilly Munavalli, Rachel Guthridge, Siri Knutsen-Larson , Amy Brodsky, Ethan Matthew, Marina Landau

PMID: 33559733 PMCID: PMC7871141 DOI: 10.1007/s00403-021-02190-6

Abstract

We present the first reported cases of delayed inflammatory reactions (DIR) to hyaluronic acid (HA) dermal fillers after exposure to the COVID-19 spike protein. DIR to HA is reported to occur in the different scenarios including: secondary to poor injection technique, following dental cleaning procedures, following bacterial/viral illness, and after vaccination. In this report of 4 cases with distinct clinical histories and presentations: one case occured following a community acquired COVID-19 infection, one case occured in a study subject in the mRNA-1273 clinical phase III trial, one case occurred following the first dose of publically available mRNA-1273 vaccine (Moderna, Cambridge MA), and the last case occurred after the second dose of BNT162b2 vaccine (Pfizer, New York, NY). Injectable HA dermal fillers are prevalent in aesthetic medicine for facial rejuvenation. Structural modifications in the crosslinking of HA fillers have enhanced the products' resistance to enzymatic breakdown and thus increased injected product longevity, however, have also led to a rise in DIR. Previous, DIR to HA dermal fillers can present clinically as edema with symptomatic and inflammatory erythematous papules and nodules. The mechanism of

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Case Reports : IDCases. 2022 Jun 15:29:e01536.

doi: 10.1016/j.idcr.2022.e01536. eCollection 2022.

"Marginal keratitis following COVID 19 vaccination"

Daniel A Farrell , Sara Deacon, Thomas Mauger

PMID: 35756698 PMCID: PMC9212909 DOI: 10.1016/j.idcr.2022.e01536

Abstract

Purpose: To describe a novel case of marginal keratitis following COVID 19 vaccination.

Methods: Case report.

Results: A 68-year-old female received the Moderna COVID 19 vaccine. She then developed ocular irritation and peripheral corneal opacities that are characteristic of marginal keratitis. Her symptoms responded well to steroid and antibiotic ophthalmic medications. She received her second dose of the Moderna vaccine while still taking her eye drops and was then able to taper off her drops without a recurrence of symptoms.

Conclusions: Marginal keratitis represents a localized type III hypersensitivity reaction of the cornea. The SARS-CoV-2 virus that causes COVID 19 gains entry into the cell via binding of the spike protein with the ACE2 receptor. It is this spike protein that is the target for mRNA COVID-19 vaccines, such as the Moderna vaccine, allowing spike protein antigen recognition by the human immune system. The cornea has been found to have significant levels of ACE2 receptors, potentially allowing for the cornea to become a site for the antigen-antibody complex deposition necessary for a type III hypersensitivity response. This reaction should be recognized so that treatment may be provided during the initial episode and the cornea may be monitored following subsequent vaccinations.

Case Reports : Neuroradiol J . 2022 Dec;35(6):758-762.

doi: 10.1177/19714009221096825. Epub 2022 Apr 29.

"Reversible cytotoxic lesion of the corpus callosum following SARS-CoV-2 mRNA vaccine administration: a finding to be aware of"

Luca Procaccini, Erica Mincuzzi, Antonio Bernardini, Paola Franchi, Ioan P Voicu 2, Massimo Caulo 1

PMID: 35488375 PMCID: PMC9066226 DOI: 10.1177/19714009221096825

Abstract

Cytotoxic lesions of the corpus callosum (CLOCCs) are a clinical-radiological spectrum of disorders secondary to several etiopathogeneses. Cytotoxic lesions of the corpus callosum are typically associated with mild clinical symptoms including fever, headache, confusion, and altered mental status. We present a case of a 51-year-old Caucasian woman who developed a reversible lesion of the splenium of the corpus callosum associated with small round-shaped white matter hyperintensities after the first dose of SARS-CoV-2 mRNA vaccine. Magnetic resonance imaging is fundamental for diagnosis and no treatment is generally required. to become a site for the antigen-antibody complex deposition necessary for a type III hypersensitivity response. This reaction should be recognized so that treatment may be provided during the initial episode and the cornea may be monitored following subsequent vaccinations.

Case Reports : Cornea . 2022 May 1;41(5):651-653.

doi: 10.1097/ICO.0000000000002978.

"Smoldering" Rejection of Keratolimbal Allograft

Larissa Gouvea, Allan R Slomovic, Clara C Chan

PMID: 35383621 DOI: 10.1097/ICO.0000000000002978

Abstract

Purpose: The purpose of this study was to report a case of "smoldering" keratolimbal allograft (KLAL) rejection in a patient with subtherapeutic levels of systemic immunosuppression in temporal association with BNT162b2 messenger RNA vaccination for severe acute respiratory syndrome coronavirus 2.

Methods: This was a case report.

Observations: A 72-year-old man presented with circumferential perilimbal engorgement, stagnation, and tortuosity of vessels with mild chemosis in his right eye KLAL segments 1 month after receiving the BNT162b2 messenger RNA vaccine while his tacrolimus trough blood levels were subtherapeutic measuring <2 ng/mL. He had undergone KLAL 6.5 years before for total limbal stem cell deficiency from a chemical injury and had been stable without any history of rejection. The donor was blood type O, and the patient had no systemic comorbidities. The patient was treated with hourly difluprednate 0.05% and increasing of his oral tacrolimus dose to 2 mg twice a day with improvement of rejection signs.

Conclusions: There may be a temporal association between KLAL rejection after immunization against severe acute respiratory syndrome coronavirus 2 in patients with subtherapeutic levels of systemic immunosuppression. Patients should be on alert for any ocular signs or symptoms postimmunization and present for treatment immediately

Case Reports : Eur J Ophthalmol . 2023 Jul;33(4):NP62-NP65.

doi: 10.1177/11206721221098880. Epub 2022 May 3.

"Vitreous Hemorrhage and Long-Lasting Priapism After COVID-19 m-RNA Based Vaccine: A Case Report"

Barbara Casarini, Francesco Bruni, Pierangela Rubino, Paolo Mora

PMID: 35505605 PMCID: PMC9080970 DOI: 10.1177/11206721221098880

Abstract

Purpose: To report a case of possible multi-district thromboembolic event involving the eye of a patient with several cardiovascular risk factors, following a second inoculation of SARS-CoV-2 m-RNA based vaccine.

Case-report: A 60-year-old man presented with blurred vision in the left eye lasting 1 month but started within 24 hours from the 2nd dose of BNT162b2 vaccine inoculation. He also reported a long-lasting but self-limiting priapism which started about 4 h after the vaccination. Patient's medical history included: acute lymphoblastic leukemia, treated with chemotherapy and HLA-identical sibling donor transplant 18 months earlier; subsequent cytomegalovirus posterior outer retinal necrosis (PORN) resolved with antiviral treatment; type II diabetes and erectile dysfunction. Ocular examination of the affected eye revealed vitreous hemorrhage which limited the observation of details of the fundus. After a 2-week follow-up without any clinical improvement, parsplana vitrectomy (PPV) with cataract extraction was performed. Surgical aspiration of a large preretinal hemorrhage revealed intraretinal flame-shaped hemorrhages and some cotton wool spots. Further intraoperative examination and post-operative fluorescein angiography excluded the rhegmatogenaous and the neovascular origin of the intraocular bleeding.

Conclusions: Due to the several predisposing factors such as diabetes,

aspirin assumption, history of blood dyscrasia and infectious retinitis, the relationship between the acute intraocular bleeding and the BNT162b2 inoculation remains difficult to ascertain in this patient. However, the occurrence of lasting priapism and vitreous hemorrhage within 24 h from the vaccination is a critical event which deserves to be mentioned.

Case Reports : Eur J Ophthalmol . 2023 Jul;33(4):NP62-NP65.

doi: 10.1177/11206721221098880. Epub 2022 May 3.

"Vitreous Hemorrhage and Long-Lasting Priapism After COVID-19 m-RNA Based Vaccine: A Case Report"

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Case Reports : Rheumatol Int. 2022 Apr;42(4):743-748

doi: 10.1007/s00296-021-05052-6. Epub 2021 Nov 19.

A flare of Still's disease following COVID-19 vaccination in a 34-year-old patient

Young Hun Jeon, Doo-Ho Lim, Seung Won Choi, Su Jin Choi

PMID: 34797392 PMCID: PMC8602986 DOI: 10.1007/s00296-021-05052-6

Abstract

Vaccination is a cornerstone for reducing the risk of COVID-19 infection during a pandemic. Although the currently used COVID-19 vaccine is considered safe, some concerns persist regarding the likelihood of flares of rheumatic diseases. Still's disease is a rare auto-inflammatory disorder of unknown etiology, and the data on the flare of Still's disease following COVID-19 vaccination are limited. Therefore, we hereby present the case of a 34-year-old female patient with Still's disease who experienced a flare after a ChAdOx1 nCoV-19 vaccination. The patient visited the emergency department complaining of fever, arthralgia, myalgia, pleuritic chest pain and macular salmon-pink rash on her back for the past 2 days. She had maintained low Still's disease activity with etanercept and low-dose glucocorticoid for 14 years. She received the ChAdOx1 nCoV-19 vaccine 7 days before the flare. Laboratory investigations revealed leucocytosis and elevated serum levels of erythrocyte sedimentation rate, C-reactive protein, and ferritin. Computed tomography showed no specific findings. She received methylprednisolone pulse therapy, etanercept, and methotrexate for treating the Still's disease flare. However, her symptoms were not fully controlled, and she developed pericarditis, pleuritis, fever and macular rashes expanding to her extremities. After excluding infectious conditions by blood culture and pleural fluid analysis, we administered tocilizumab with methotrexate and prednisolone. Her symptoms and laboratory findings improved significantly, and she was discharged without symptoms 7 days later. Although rare, this case of a patient with Still's disease undergoing a flare following vaccination suggests that close observation of disease activity is warranted following COVID-19 vaccination.

Case Reports : Pediatr Adolesc Gynecol. 2022 Mar 17;35(2):226

doi: 10.1016/j.jpag.2022.01.089

Post COVID-19 Vaccination Vulvar Aphthous Ulcers: An Unpopular Case Series

Ashli Lawson, Anne-Marie Priebe, Julie Strickland

PMCID: PMC8929996

Abstract

Background: Vulvar aphthous ulcers have been described since the early 1900s. These non-sexually acquired genital ulcers typically appear in the perimenarchal population as 1-3 painful ulcers that spontaneously resolve within 21 days. Etiology is not completely understood but there is believed to be a large immunologic component given a high association with a recent viral infection. With the COVID-19 pandemic, our institution saw COVID associated aphthous ulcers. After increased use of the Pfizer vaccine in those 12 years old and over, our institution also saw a series of post vaccination aphthous ulcers.

Case: At our tertiary care children's hospital the division of pediatric and adolescent gynecology saw three patients from 6/2021 through 9/2021 presenting with vulvar aphthous ulcers all of whom were recently given their second COVID-19 Pfizer vaccination. Patients ranged from age 12 to 15 years old and were both pre- and post-menarchal. None of the patients to their knowledge had a history of COVID or a recent COVID exposure. In addition, there were no recent symptomatic viral illnesses. Of those who agreed to cytomegalovirus (CMV) and Epstein-Barr Virus (EBV) testing, all were negative. These patients had all received their first dose of the Pfizer vaccine without complications and were all 2 days post second vaccine when they first noticed pain. On average, they presented to the emergency room within 24-48 hours of presentation of symptoms and had gynecologic follow-up within 48 hours. Physical exam was consistent with a diagnosis of vulvar aphthous ulcers with no exceptional characteristics. There were

multiple ulcerations with fibrinous exudate and some with necrotic islands. All resolved spontaneously by 3 weeks and no further follow-up was needed. There were no diagnoses of COVID-19 infection after the diagnosis of the aphthous ulcer.

Comments: The COVID vaccine is safe and efficacious for protection against COVID-19. National organizations such as American College of Obstetricians and Gynecologists (ACOG), Society for Maternal-Fetal Medicine (SMFM), American Academy of Pediatrics (AAP), and North American Society for Pediatric and Adolescent Gynecology (NASPAG) have endorsed vaccination in their respective audience. Specifically, AAP and NASPAG have encouraged eligible patients 12 through 16 to receive the Pfizer COVID-19 vaccination. Although this is a series of adverse outcomes post COVID-10 vaccination, it does shed light on the multifaceted immune response one gains from a COVID-19 mRNA based vaccine. In addition, this series further supports the long-held belief that vulvar aphthous ulcers are an immunologic response rather than a sign of a genital infection themselves.

Cureus : 2022 May 21;14(5):e25195.

doi: 10.7759/cureus.25195. eCollection 2022 May.

Reactivation of Herpes Zoster Virus After COVID-19 Vaccination: Is There Any Association?

Surbhi Agrawal, Kapila Verma, Ishan Verma, Jagriti Gandhi

PMID: 35746994 PMCID: PMC9209775 DOI: 10.7759/cureus.25195

Abstract

SARS-CoV-2 disease, COVID-19 infection, is a multi-system illness that has afflicted people all over the world. A number of vaccines have been produced to combat the current COVID-19 pandemic, and a variety of side effects have been recorded following the vaccination. However, there are limited data on the negative effects of immunological reactivation following vaccination. We report 10 incidences of herpes zoster reactivation within 7-21 days of getting the COVID-19 vaccination. Transient immunomodulation following vaccination, similar to that seen in COVID-19 illness, could be one explanation for this reactivation. These cases highlight the significance of continuing to examine vaccine safety during the COVID-19 pandemic's ongoing mass vaccination campaign. We also underline the importance of peripheral health professionals in the management and reporting of any vaccination-associated adverse event. and some with necrotic islands. All resolved spontaneously by 3 weeks

J Endocrinol Invest . 2022 Jul;45(7):1341-1347.

doi: 10.1007/s40618-022-01767-w. Epub 2022 Feb 19.

SARS-CoV-2 vaccine-associated subacute thyroiditis

G Yorulmaz, M Sahin Tekin

PMID: 35182366 PMCID: PMC8857746 DOI: 10.1007/s40618-022-01767-w

Abstract

Purpose: With coronavirus disease 2019 (COVID-19), subacute thyroiditis (SAT) cases are on the rise all over the world. COVID-19 vaccine-associated SAT cases have also been reported. In this article, we present our data on 11 vaccine-associated SAT cases.

Methods: Eleven patients were included in the study. Type of the vaccines patients received, time to the occurrence of SAT after vaccination, symptoms and laboratory findings, treatment given, and response to treatment were evaluated.

Results: The age of patients ranged from 26 to 73. Four of the patients were males, and seven were females. Symptoms of six patients were seen after BNT162b2 Pfizer/BioNTech COVID-19 mRNA vaccine®, and four of them after Coronavac inactivated SARS-CoV-2 vaccine®. In one patient, SAT developed after the first dose of BNT162b2, administered after two doses of Coronavac. The average time to the onset of symptoms was 22 days (15-37) after vaccination.

Conclusions: The fact that both whole virus containing and genetic material containing vaccines cause SAT suggests that the trigger may be viral proteins rather than the whole viral particle. Although corticosteroids are commonly preferred in published vaccine-associated SAT cases, we preferred nonsteroidal anti-inflammatory therapy in our patients for sufficient vaccine antibody response. There is not enough information about whether patients who develop SAT can be revaccinated safely considering the ongoing pandemic. Further research is needed for a conclusion in the treatment and revaccination of these patients.

Eur J Med Res. 2021 Aug 25;26(1):98. doi: 10.1186/s40001-021-00557-z.

Delayed skin reaction after mRNA-1273 vaccine against SARS-CoV-2: a rare clinical reaction

Norman-Philipp Hoff , Noemi F Freise , Albrecht G Schmidt, Parnian Firouzi-Memarpuri, Julia Reifenberger, Tom Luedde, Edwin Bölke, Stephan Meller, Bernhard Homey, Torsten Feldt, Björn Erik Ole Jensen, Verena Keitel, Livia Schmidt, Kitti Maas, Jan Haussmann, Balint Tamaskovics Wilfried Budach, Johannes C Fischer, Bettina Alexandra Buhren, Wolfram Trudo Knoefel, Marion Schneider, Peter Arne Gerber, Alessia Pedoto, Dieter Häussinger, Olaf Grebe, Martijn van Griensven, Stephan A Braun, Stefan Salzmann, Amir Rezazadeh, Christiane Matuschek

PMID: 34433495 PMCID: PMC8386154 DOI: 10.1186/s40001-021-00557-z

Abstract

Background: The coronavirus disease 2019 (COVID-19) is associated with a wide clinical spectrum of skin manifestations, including urticarial, vesicular, vasculitic and chilblain-like lesions. Recently, delayed skin reactions have been reported in 1% individuals following mRNA vaccination against SARS-CoV-2. The exact pathophysiology and the risk factors still remain unclear.

Patients and methods: 6821 employees and patients were vaccinated at our institutions between February and June 2021. Every patient received two doses of the mRNA-1273 vaccine in our hospitals, and reported back in case of any side effects which were collected in our hospital managed database.

Results: Eleven of 6821 vaccinated patients (0.16%) developed delayed skin reactions after either the first or second dose of the mRNA-1273 vaccine against SARS-CoV-2. Eight of 11 patients (73%) developed a

rash after the first dose, while in 3/11 (27%), the rash occurred after the second dose. More females (9/11) were affected. Four of 11 patients required antihistamines, with two needing additional topical steroids. All the cutaneous manifestations resolved within 14 days. None of the skin reactions after the first dose of the vaccine prevented the administration of the second dose. There were no long-term cutaneous sequelae in any of the affected individuals.

Conclusion: Our data suggests that skin reactions after the use of mRNA-1273 vaccine against SARS-CoV-2 are possible, but rare. Further studies need to be done to understand the pathophysiology of these lesions.

Case Reports: Clin Nucl Med. 2022 Mar 1;47(3):271-272. doi: 10.1097/RLU.0000000000003935.

111In-Pentetreotide Uptake Due to COVID-19 Vaccination

Sho Koyasu, Yuji Nakamoto

PMID: 34619700 PMCID: PMC8820749 DOI: 10.1097/RLU.0000000000003935

Abstract

A 72-year-old woman was referred for whole-body 111In-pentetreotide scintigraphy with SPECT/CT. There was increased uptake of lymphadenopathy in the left axilla and left deltoid muscle. The patient's history revealed that the patient received the first dose of the COVID-19 vaccine 3 days before the 111In-pentetreotide scintigraphy with SPECT/CT. This case demonstrates that the COVID-19 vaccine can cause 111In-pentetreotide uptake in the lymph nodes and the deltoid muscle.

Muscle Nerve. 2022 Feb;65(2):233-237. doi: 10.1002/mus.27461. Epub 2021 Nov 26.

Acute-onset polyradiculoneuropathy after SARS-CoV2 vaccine in the West and North Midlands, United Kingdom

Lay Khoon Loo, Omar Salim, Di Liang, Aimee Goel, Salini Sumangala, Ashwin S Gowda, Brendan Davies, Yusuf A Rajabally

PMID: 34786740 PMCID: PMC8661585 DOI: 10.1002/mus.27461

Abstract

Introduction/aims: We aimed to determine whether specific severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) vaccines may be associated with acute-onset polyradiculoneuropathy and if they may result in particular clinical presentations.

Methods: We retrospectively reviewed records of all persons presenting with acute-onset polyradiculoneuropathy from January 1, 2021, to June 30, 2021, admitted to two Neuroscience centers, of the West and North Midlands, United Kingdom. We compared subjects with previous SARS-CoV2 vaccine exposure with a local cohort of persons with acute-onset polyradiculoneuropathy admitted between 2005 and 2019 and compared admission numbers for the studied time frame with that of the previous 3 years.

Results: Of 24 persons with acute-onset polyradiculoneuropathy, 16 (66.7%) presented within 4 weeks after first SARS-CoV2 vaccine. Fourteen had received the AstraZeneca vaccine and one each, the Pfizer and Moderna vaccines. The final diagnosis was Guillain-Barré syndrome (GBS) in 12 and acute-onset chronic inflammatory demyelinating polyneuropathy in 4. Among AstraZeneca vaccine recipients, facial weakness in nine persons (64.3%), bulbar weakness in seven (50%), and the bifacial weakness and distal paresthesias GBS variant in three (21.4%), were more common than in historical controls (P = .01; P = .004, and P = .002, respectively). A 2.6-fold (95% confidence interval: 1.98-

3.51) increase in admissions for acute-onset polyradiculoneuropathy was noted during the studied time frame, compared to the same period in the previous 3 years.

Discussion: Despite a low risk, smaller than that of SARS-CoV2 infection and its complications, exposure to the first dose of AstraZeneca SARS-CoV2 vaccine may be a risk factor for acute-onset polyradiculoneuropathy, characterized by more common cranial nerve involvement.

Case Reports : Pediatr Dermatol. 2022 Sep;39(5):823-824. doi: 10.1111/pde.15019. Epub 2022 May 6.

Eosinophilic cellulitis in response to BNT162b2 COVID-19 vaccination

Ogechi Ikediobi, Dawn Z Eichenfield, Victoria R Barrio

PMID: 35522122 PMCID: PMC9347735 DOI: 10.1111/pde.15019

Abstract

A 12-year-old boy presented with a 2-week history of persistent pruritic edematous plaques one day after he received the first dose of the BNT162b2 COVID-19 mRNA vaccine. A skin biopsy showed urticarial dermatitis with tissue eosinophilia consistent with a diagnosis of vaccine-associated eosinophilic cellulitis, with polyethylene glycol as a potential trigger.

Br J Haematol. 2021 Nov;195(3):365-370. doi: 10.1111/bjh.17645.
Epub 2021 Jun 24.

Exacerbation of immune thrombocytopenia following COVID-19 vaccination

David J Kuter

PMID: 34075578 PMCID: PMC8239625 DOI: 10.1111/bjh.17645

Abstract

There is concern that COVID-19 vaccination may adversely affect immune thrombocytopenia (ITP) patients. Fifty-two consecutive chronic ITP patients were prospectively followed after COVID-19 vaccination. Fifteen percent had no worsening of clinical symptoms but no post-vaccination platelet count; 73% had no new symptoms and no significant platelet count decline. However, 12% had a median platelet count drop of 96% within 2-5 days post vaccination with new bleeding symptoms; after rescue therapy with corticosteroids +/- intravenous immunoglobulin (IVIG), platelets recovered to >30 × 109 /l a median three days later. ITP exacerbation occurred independently of remission status, concurrent ITP treatment, or vaccine type. Safety of a second vaccine dose needs careful assessment.

Case Reports : Pediatr Infect Dis J. 2022 Mar 1;41(3):e87-e89. doi: 10.1097/INF.0000000000003432.

A Case of Multisystem Inflammatory Syndrome in a 12-Year-old Male After COVID-19 mRNA Vaccine

Rumeysa Yalçinkaya, Fatma Nur Öz, Meltem Polat, Berna Uçan, Türkan Aydin Teke, Ayşe Kaman, Suna Özdem, Zeynep Savaş Şen, Rüveyda Gümüşer Cinni, Gönül Tanir

PMID: 34978781 PMCID: PMC8828314 DOI: 10.1097/INF.0000000000003432

Abstract

The pathophysiology of multisystem inflammatory syndrome (MIS) in children (MIS-C) is unknown. It occurs several weeks after COVID-19 infection or exposure; however, MIS is rarely reported after COVID-19 vaccination, and cases are mostly in adults. Herein, we present a 12-year-old male who had no prior COVID-19 infection or exposure and developed MIS-C after his first dose of COVID-19 mRNA vaccine.

Case Reports : Vaccines (Basel). 2021 Dec 30;10(1):43. doi: 10.3390/vaccines10010043.

Multisystem Inflammatory-like Syndrome in a Child Following COVID-19 mRNA Vaccination

Tina Y Poussaint, Kerri L LaRovere, Jane W Newburger, Janet Chou, Lise E Nigrovic, Tanya Novak, Adrienne G Randolph

PMID: 35062704 PMCID: PMC8781649 DOI: 10.3390/vaccines10010043

Abstract

A 12-year-old male was presented to the hospital with acute encephalopathy, headache, vomiting, diarrhea, and elevated troponin after recent COVID-19 vaccination. Two days prior to admission and before symptom onset, he received the second dose of the Pfizer-BioNTech COVID-19 vaccine. Symptoms developed within 24 h with worsening neurologic symptoms, necessitating admission to the pediatric intensive care unit. Brain magnetic resonance imaging within 16 h of admission revealed a cytotoxic splenial lesion of the corpus callosum (CLOCC). Nineteen days prior to admission, he developed erythema migrans, and completed an amoxicillin treatment course for clinical Lyme disease. However, Lyme antibody titers were negative on admission and nine days later, making active Lyme disease an unlikely explanation for his presentation to hospital. An extensive workup for other etiologies on cerebrospinal fluid and blood samples was negative, including infectious and autoimmune causes and known immune deficiencies. Three weeks after hospital discharge, all of his symptoms had dissipated, and he had a normal neurologic exam. Our report highlights a potential role of mRNA vaccine-induced immunity leading to MIS-C-like symptoms with cardiac involvement and a CLOCC in a recently vaccinated child and the complexity of establishing a causal association with vaccination. The child recovered without receipt of immune modulatory treatment.

Observational Study : Clin Infect Dis. 2022 Mar 1;74(4):591-596. doi: 10.1093/cid/ciab518.

Incidence and Characteristics of Delayed Injection Site Reaction to the mRNA-1273 Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Vaccine (Moderna) in a Cohort of Hospital Employees

Mark A Jacobson, Adam Zakaria, Zaw Maung, Colin Hart, Timothy H McCalmont, Marlys Fassett, Erin Amerson

PMID: 34086881 PMCID: PMC8244618 DOI: 10.1093/cid/ciab518

Abstract

Background: mRNA SARS-CoV-2 vaccines are administered to 2 million individuals per day in the United States under US Food and Drug Administration emergency use authorization.

Methods: Observational cohort study of hospital employees who received their first SARS-CoV-2 mRNA vaccination between 14 December 2020 and 8 January 2021, including employees who reported onset of an injection site reaction ≥48 hours after administration of their first or second dose to an employee hotline.

Results: Thirteen female employees who received the mRNA-1273 vaccine (Moderna) during the first 3 weeks of the SARS-CoV-2 vaccine rollout at San Francisco General Hospital reported a pruritic rash at the injection site appearing 3 -9 days after receipt of their initial dose. Five had milder or similar reactions with earlier onset after the second dose. One additional female employee reported this delayed reaction only after the second dose. None reported serious adverse events or had symptoms severe enough to seek medical attention. These cases represented 1.1% of the 1275 female employees who received their first

mRNA-1273 dose and 2.0% of the 557 who were aged 31 -45 years during this initial vaccine rollout. None of 675 males who initiated mRNA-1273 or 3612 employees of any sex who initiated BNT162b (Pfizer) vaccination during this period reported delayed-onset reactions.

Conclusions: These results suggest that delayed-onset, injection site pruritic rashes after mRNA-1273 SARS-CoV-2 vaccine administration, lasting up to 1 week, occur commonly in females, do not lead to serious sequela, and should not deter receipt of the second vaccine dose.

J Laryngol Otol. 2021 Nov;135(11):1025-1030. doi: 10.1017/S0022215121002462. Epub 2021 Sep 16.

Cervical lymphadenopathy following coronavirus disease 2019 vaccine: clinical characteristics and implications for head and neck cancer services

A K Abou-Foul, E Ross, M Abou-Foul, A P George

PMID: 34526175 PMCID: PMC8476898 DOI: 10.1017/S0022215121002462

Abstract

Objective: Patients with coronavirus disease vaccine associated lymphadenopathy are increasingly being referred to healthcare services. This work is the first to report on the incidence, clinical course and imaging features of coronavirus disease vaccine associated cervical lymphadenopathy, with special emphasis on the implications for head and neck cancer services.

Methods: This was a retrospective cohort study of all patients referred to our head and neck cancer clinics between 16 December 2020 and 12 March 2021. The main outcomes measured were the proportion of patients with vaccine-associated cervical lymphadenopathy, and the clinical and imaging characteristics.

Results: The incidence of vaccine-associated cervical lymphadenopathy referrals was 14.8 per cent (n = 13). Five patients (38.5 per cent) had abnormal-looking enlarged and rounded nodes with increased vascularity. Only seven patients (53.9 per cent) reported full resolution within an average of 3.1 ± 2.3 weeks.

Conclusion: Coronavirus disease vaccine associated cervical lymphadenopathy can mimic malignant lymphadenopathy and therefore might prove challenging to diagnose and manage correctly. Healthcare services may encounter a significant increase in referrals.

Case Reports: Cureus. 2022 Mar 25;14(3):e23474. doi: 10.7759/cureus.23474. eCollection 2022 Mar.

Myocarditis Following the Second Dose of COVID-19 Vaccination in a Japanese Adolescent

Shohei Yamamoto, Yoh Arita, Nobuyuki Ogasawara

PMID: 35475062 PMCID: PMC9035236 DOI: 10.7759/cureus.23474

Abstract

As COVID-19 vaccines continue to be deployed worldwide, countries are now planning to vaccinate their pediatric populations as well. However, several vaccine-related adverse events, including myocarditis, have been reported. Although the incidence of myocarditis after BNT162b2 vaccination is low, it is higher, particularly after receiving the second dose, among young male recipients. A 13-year-old male adolescent presented with chest pain after the second dose of the BNT162b2 vaccination. Electrocardiography, echocardiography, cardiac magnetic resonance imaging, and blood examinations were consistent with myocarditis. He was treated conservatively because his symptoms were relatively mild. In Japan, it is expected that the chances of diagnosing vaccine-related myocarditis will increase as more children are getting vaccinated. Our case report raises concerns to physicians that the COVID-19 vaccination may cause rare cases of myocarditis, which must always be considered as a differential diagnosis.

Case Reports: BMC Nephrol. 2022 Jun 21;23(1):216. doi: 10.1186/s12882-022-02843-2.

Sibling cases of gross hematuria and newly diagnosed IgA nephropathy following SARS-CoV-2 vaccination

Yuri Uchiyama, Hirotaka Fukasawa, Yuri Ishino, Daisuke Nakagami, Mai Kaneko, Hideo Yasuda, Ryuichi Furuya

PMID: 35729514 PMCID: PMC9209842 DOI: 10.1186/s12882-022-02843-2

Abstract

Background: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination has become a major part of the strategy to reduce Coronavirus disease 2019 (COVID-19) numbers worldwide. To date, vaccinations based on several mechanisms have been used clinically, although relapse of existent glomerulonephritis presenting as gross hematuria, and occurrence of de novo glomerulonephritis have been reported.

Case presentation: We report the first sibling cases newly diagnosed as immunoglobulin A (IgA) nephropathy after the second dose of SARS-CoV-2 vaccination. 15- and 18-year-old men presented with gross hematuria following the second dose of SARS-CoV-2 vaccine (Pfizer, BNT162b2) received on the same day. Pathological findings of each kidney biopsy specimen were consistent with IgA nephropathy. Gross hematuria in both cases spontaneously recovered within several days.

Conclusions: These cases indicate that SARS-CoV-2 vaccination might trigger de novo IgA nephropathy or stimulate its relapse, and also highlight the necessity of understanding the immunological responses to the novel mRNA vaccines in patients with kidney diseases.

Emerg Infect Dis. 2022 May;28(5):990-993. doi: 10.3201/eid2805.212418. Epub 2022 Mar 11.

Multisystem Inflammatory Syndrome in Children after SARS-CoV-2 Vaccination

Eisha Jain, Jeffrey R Donowitz, Elizabeth Aarons, Beth C Marshall, Michael P Miller

PMID: 35275051 PMCID: PMC9045439 DOI: 10.3201/eid2805.212418

Abstract

Multisystem inflammatory syndrome in children (MIS-C) is a hyperinflammatory state that occurs after severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. We present 2 cases of MIS-C after SARS-CoV-2 vaccination; 1 patient had evidence of recent SARS-CoV-2 infection. Our findings suggest that vaccination modulates the pathogenesis of MIS-C.

Acad Radiol. 2021 Sep;28(9):1191-1197. doi: 10.1016/j.acra.2021.06.003. Epub 2021 Jun 10.

COVID-19 Vaccination Induced Lymphadenopathy in a Specialized Breast Imaging Clinic in Israel: Analysis of 163 cases

Renata Faermann, Noam Nissan, Osnat Halshtok-Neiman, Anat Shalmon Michael Gotlieb, Yael Yagil 3, David Samoocha, Eitan Friedman, Miri Sklair-Levy

PMID: 34257025 PMCID: PMC8189756 DOI: 10.1016/j.acra.2021.06.003

Abstract

Introduction: Following vaccination of Israeli population with Pfizer-BioNTech COVID-19 Vaccine, an unusual increase in axillary-lymphadenopathy was noted. This study assesses the rate and magnitude of this trend from breast-imaging standpoint.

Materials and methods: Participants undergoing breast-imaging, in whom isolated axillary-lymphadenopathy was detected were questioned regarding SARS-CoV-2 vaccine to the ipsilateral arm. Patients' and imaging characteristics were statistically compared. In order to perform a very short-term follow-up, twelve healthy vaccinated medical staff-members, underwent axillary-ultrasound shortly after the second dose, and follow-up.

Results: Axillary-lymphadenopathy attributed to vaccination was found in 163 women undergoing breast-imaging, including BRCA-carriers. During the study, number of detected lymphadenopathies increased by 394% ($p = 0.00001$) in comparison with previous 2 consecutive years. Mean cortical-thickness of abnormal lymph-nodes after second dose vaccination was 5 ± 2 mm. Longer lymph-node diameter after second vaccination was noted (from 15 ± 5 mm, to 18 ± 6 mm, $p = 0.005$). In the subgroup of medical staff members, following trends were

observed: in patients with positive antibodies, lymph-node cortical-thickness was larger than patients with negative serology ($p = 0.03$); lymph-node cortical-thickness decreased in 4-5 weeks follow-up ($p = 0.007$). Lymphadenopathy was evident on mammography in only 49% of cases.

Discussion: Vaccine-associated lymphadenopathy is an important phenomenon with great impact on breast-imaging clinic workload. Results suggest the appearance of cortical thickening shortly after both doses. Positive serology is associated with increased lymph-node cortical-thickness. In asymptomatic vaccinated women with ipsilateral axillary-lymphadenopathy as the only abnormal finding, radiological follow-up is probably not indicated. BRCA-carriers, although at higher risk for breast-cancer, should probably receive the same management as average-risk patients.

Clin Infect Pract. 2022 Apr:14:100139. doi: 10.1016/j.clinpr.2022.100139. Epub 2022 Feb 15.

Multi inflammatory syndrome in a 16-year-old male following first dose of m-RNA COVID-19 vaccination

Patrick Hugh McGann, Ahmed O A Krim, Jared Green, Jacqueline Venturas

PMID: 35187466 PMCID: PMC8843319 DOI: 10.1016/j.clinpr.2022.100139

Abstract

Multisystem Inflammatory Syndrome (MIS) is an uncommon systemic illness that occurs 4-6 weeks after primary infection with SARS-CoV-2. There are emerging reports of MIS arising following vaccination against SARS-CoV-2. We report a 16-year-old male with a multi system inflammatory condition meeting the case definition for MIS following BTN162b2 mRNA SARS-CoV-2 (Pfizer BioNTech) vaccine with no other identifiable precipitant or evidence of primary infection with SARS-Cov-2.

Otol Neurotol. 2021 Oct 1;42(9):e1213-e1218. doi: 10.1097/MAO.0000000000003275.

Helena Wichova 1, Mia E Miller, M Jennifer Derebery

Helena Wichova, Mia E Miller, M Jennifer Derebery

PMID:34267103 PMCID:PMC8443418 DOI:10.1097/MAO.0000000000003275

Abstract

Objective: With the increasing numbers of COVID-19 vaccinations available there are some reports of new onset of otologic symptoms. We present our experience in recently vaccinated patients over a 30-day time frame.

Study design: Retrospective chart review.

Setting: Tertiary otology ambulatory practice.

Patients: All patients with available diagnostic codes, COVID-19 questionnaires and clinical notes.

Interventions: Observational recordings.

Main outcome measures: Within the same 30-day time period in 2019, 2020, and 2021, 1.6, 2.4, and 3.8% respectively, of all office visits were for patients with the diagnosis of new onset idiopathic sensorineural hearing loss (SNHL) without other underlying otologic diagnoses. In this time frame in 2021, 30 patients out of the 1,325 clinical visits had new or significantly exacerbated otologic symptoms that began shortly after COVID-19 vaccination. Specifically, 18 patients received Moderna and 12 patients received Pfizer vaccine. Their mean age was 60.9±13.8 years old; 11 were women and 19 men. The mean onset of symptoms was 10.18 ± 9 days post-vaccination. Symptoms included 25 patients (83.3%) with hearing loss, 15 (50%) with tinnitus, eight (26.7%) with dizziness, and five (16.7%) with vertigo. Eleven patients had previous otologic diagnoses, including six patients with Menière's disease, two with autoimmune inner ear disease (AIED), and three having both.

Conclusions: There are no definite correlations to the COVID-19 pandemic or vaccination and new or worsened otologic symptoms. Vaccinated patients with new or exacerbated otologic symptoms should be promptly referred for evaluation. Suspected cases of post-vaccination otologic symptoms should be reported to the Center for Disease Control (CDC) vaccine adverse event reporting system (VAERS).

Case Reports: J Nucl Med Technol. 2022 Mar;50(1):73-74. doi: 10.2967/jnmt.121.263001. Epub 2021 Dec 6.

Fluciclovine-Avid Axillary Lymph Nodes After COVID-19 Vaccination on PET/CT for Suspected Recurrence of Prostate Cancer

Justin G Peacock, Elisabeth A Banks, Nathan McWhorter

PMID: 34872921 PMCID: PMC9178550 DOI: 10.2967/jnmt.121.263001

Abstract

Abnormally increased 18F-FDG avidity of axillary lymph nodes has become a frequent diagnostic dilemma on PET/CT in the current climate of global vaccinations directed against severe acute respiratory syndrome coronavirus 2. This avidity is due to the inflammatory response evoked by vaccines and the nonspecific nature of 18F-FDG uptake, which is increased in both malignant and inflammatory processes. Similarly, 18F-fluciclovine, an amino acid analog indicated for the assessment of biochemical recurrence of prostate cancer, may also demonstrate nonspecific inflammatory uptake. We report a case of 18F-fluciclovine PET/CT obtained for concern about prostate cancer. In this case, isolated avid lymph nodes were seen in the left axilla. A screening questionnaire revealed that the patient had recently received the second dose of the Pfizer-BioNTech coronavirus disease 2019 vaccine in his left shoulder, and hence, the uptake was determined to be reactive.

Case Reports: Clin Nucl Med. 2021 May 1;46(5):433-434. doi: 10.1097/RLU.0000000000003633.

18F-FDG-Avid Lymph Nodes After COVID-19 Vaccination on 18F-FDG PET/CT

Gary A Ulaner, Peter Giuliano

PMID: 33782318 DOI: 10.1097/RLU.0000000000003633

Abstract

A 68-year-old man with right cheek melanoma after resection underwent 18F-FDG PET/CT, which was unremarkable except for multiple FDG-avid subcentimeter but rounded lymph nodes in the left axilla. The patient had undergone a COVID-19 vaccination in the left arm 3 weeks prior. As under vaccinations have been documented to cause reactive FDG-avid lymph nodes, the nodes in our patient were considered benign, reactive to the COVID-19 vaccination. Although FDG-avid benign, reactive nodes have been an uncommon finding in the past, the upcoming surge in COVID-19 vaccinations makes this an important finding for the interpreting physician to consider and recognize.

Case Reports: Clin Nucl Med. 2022 Feb 1;47(2):154-155. doi: 10.1097/RLU.0000000000003844.

18F-Fluciclovine-Avid Reactive Axillary Lymph Nodes After COVID-19 Vaccination

Franklin C Wong, Lucia Martiniova, Avantika Masrani, Gregory C Ravizzini

PMID: 34183501 PMCID: PMC8745947 DOI: 10.1097/RLU.0000000000003844

Abstract

A 74-year-old man presenting with biochemical recurrent prostate cancer 9 months after robotic-assisted radical prostatectomy and pelvic lymphadenectomy underwent 18F-fluciclovine PET/CT for restaging to determine subsequent treatment strategy. Serum prostate-specific antigen was 0.7 ng/mL at the time of imaging. Images demonstrated foci of abnormal increased 18F-fluciclovine uptake corresponding to prominent round lymph nodes in the left axilla, some of which with fatty hila. Due to recent mRNA COVID-19 vaccination in the ipsilateral arm and the low likelihood of nodal metastases to the axilla from prostate cancer in this patient, the lymph nodes were considered to be benign, reactive to the vaccine.

Case Reports: Cureus. 2021 Oct 18;13(10):e18880. doi: 10.7759/cureus.18880. eCollection 2021 Oct.

Acute Myocarditis Following the Administration of the Second BNT162b2 COVID-19 Vaccine Dose

Mohammed A Miqdad, Hamze Nasser, Abdullah Alshehri, Abdul Rahman Mourad

PMID: 34804729 PMCID: PMC8599115 DOI: 10.7759/cureus.18880

Abstract

COVID-19 disease has infected millions of people worldwide during the pandemic; hence, the need for an effective and safe vaccine was urgently required. A two-dose of the BNT162b2 mRNA COVID-19 vaccine was reported to have 95% efficacy in preventing COVID-19. The short-term safety profile recorded mild to moderate pain at the injection site, fatigue, and headache. The critical adverse effects were low and similar in the placebo group. However, we report the case of an 18-year-old male who developed acute central crushing chest pain four days following administration of the second dose of the BNT162b2 COVID-19 vaccine. After extensive cardiac workup, including coronary arteries diagnostic angiography, myocarditis was suspected and confirmed by a cardiac MRI. Fortunately, the patient's clinical condition gradually improved in the form of clinical symptoms and laboratory findings. He was discharged after one week of stay in hospital with regular follow-up in the cardiac clinic.

Review : Clinics (Sao Paulo). 2021 Oct 11:76:e3286. doi: 10.6061/clinics/2021/e3286. eCollection 2021.

Post SARS-CoV-2 vaccination Guillain-Barre syndrome in 19 patients

Josef Finsterer, Fulvio A Scorza, Carla A Scorza

PMID: 34644738 PMCID: PMC8478139 DOI: 10.6061/clinics/2021/e3286

Abstract

SARS-CoV-2 vaccinations are not free from side effects. Usually, they are mild or moderate but occasionally severe. One of these severe side effects is Guillain-Barré syndrome (GBS). This review summarizes and discusses GBS as a side effect of SARS-CoV-2 vaccinations (SCoVaG) based on recent research reports. Altogether, nine articles reporting 18 patients with SCoVaG were identified and one more report on another patient is under review. The age for the studies ranged between 20-86y. Nine patients were male, and ten were female. In all 19 patients, SCoVaG developed after the first dose of the vaccine. The Astra Zeneca vaccine was used in fourteen patients, the Pfizer vaccine in four patients, and the Johnson & Johnson vaccine was applied in one patient. The latency between vaccination and onset of GBS ranged from 3h to 39d. The treatment of SCoVaG included IVIGs (n=13), steroids (n=3), or no therapy (n=3). Six patients required mechanical ventilation. Only a single patient recovered completely and partial recovery was achieved in nine patients. In conclusion, GBS may develop time-linked to the first dose of a SARS-CoV-2 vaccination. Though a causal relationship between SARS-CoV-2 vaccinations and SCoVaG remains speculative, more evidence is in favour than against it.

Case Reports : Cornea. 2021 Aug 1;40(8):1070-1072. doi: 10.1097/ICO.0000000000002761.

Keratoplasty Rejection After the BNT162b2 messenger RNA Vaccine

Lauren M Wasser, Eduardo Roditi, David Zadok, Liron Berkowitz, Yishay Weill

PMID: 34029238 PMCID: PMC8244807 DOI: 10.1097/ICO.0000000000002761

Abstract

Purpose: The aim of this report was to report 2 patients who presented with acute corneal graft rejection 2 weeks after receiving the BNT162b2 messenger RNA (mRNA) vaccine for severe acute respiratory syndrome coronavirus 2.

Methods: Case report.

Results: Two men, aged 73 and 56 years, with a history of penetrating keratoplasty due to keratoconus were noted to have acute corneal graft rejection 2 weeks after receiving a first dose of the BNT162b2 mRNA vaccine. Both patients were treated with hourly dexamethasone 0.1% and oral prednisone 60 mg per day with prompt resolution of keratoplasty rejection.

Conclusions: The BNT162b2 mRNA vaccine may be have been associated with a low-risk corneal graft rejection that responded well to topical and systemic steroids. Treating physicians should be aware of this potential complication and patients should be advised to report any visual changes after vaccination.

Case Reports : IDCases. 2021:25:e01245. doi: 10.1016/j.idcr.2021.e01245. Epub 2021 Aug 4

Immune thrombocytopenia associated with Pfizer-BioNTech's BNT162b2 mRNA COVID-19 vaccine

Hiroaki Akiyama, Seiji Kakiuchi, Junpei Rikitake, Hiroyuki Matsuba, Daisuke Sekinada, Yoko Kozuki, Nobuko Iwata

PMID: 34381692 PMCID: PMC8336989 DOI: 10.1016/j.idcr.2021.e01245

Abstract

The recent global pandemic of coronavirus disease 2019 (COVID-19) has led to vaccination in many parts of the world for herd immunity, and as vaccination has progressed, several rare adverse events have been reported. Immune thrombocytopenia (ITP) has been reported to be one of the rare adverse events caused by vaccination with MMR (measles-mumps-rubella) vaccine and influenza vaccine. In addition, ITP has been reported to occur in a small number of cases associated with the COVID-19 messenger ribonucleic acid (mRNA) vaccine. However, there are few reports on the details of the treatment and clinical course; optimal treatment has not yet been established. We report the case of a 20-year-old woman who developed ITP after receiving Pfizer-BioNTech's BNT162b2 vaccine. She had generalized subcutaneous hemorrhage, 14 days after vaccination. At the time of our visit, she had marked thrombocytopenia and intraoral bleeding; she was diagnosed with ITP. Treatment with oral steroids was started and the platelet count promptly improved after 4 days of treatment. Since the response to treatment was very good, we tapered off the steroids. As these vaccines will be increasingly used in the future, it is important to recognize ITP as a possible adverse event.

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Abstract

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Case Reports : Mod Rheumatol Case Rep. 2023 Jan 3;7(1):122-126.
doi: 10.1093/mrcr/rxac014.

IgA vasculitis following COVID-19 vaccination

Naoya Nishimura, Yasuko Shiomichi, Satoshi Takeuch, Shun Akamine, Reiko Yoneda, Seiji Yoshizawa

PMID: 35253880 PMCID: PMC8903512 DOI: 10.1093/mrcr/rxac014

Abstract

Immunoglobulin A (IgA) vasculitis is generally triggered by infectious causes, but it has also been reported after immunisation with various vaccines. Herein, we report two cases of IgA vasculitis after receiving the first or second dose of the Pfizer-BioNTech BNT16B2b2 mRNA vaccine. Two men, aged 22 and 30 years, developed palpable purpura on the extremities and arthritis. One patient also complained of fever and gastrointestinal symptoms. Laboratory findings revealed mild leucocytosis and slightly elevated C-reactive protein levels, although the platelet count and coagulation profile were within normal levels in both cases. Proteinuria and microhaematuria were seen in one patient. Skin biopsies were performed in both patients and revealed leucocytoclastic vasculitis. The deposits of IgA and C3 were shown in immunofluorescence studies in one patient. Both patients were diagnosed with IgA vasculitis and treated with prednisolone, and their symptoms resolved within 1 week after initiation of treatment. The coronavirus disease 2019 mRNA vaccine could trigger IgA vasculitis; however, a coincidence cannot be ruled out.

Vaccine. 2021 Nov 26;39(48):7052-7057. doi: 10.1016/j.vaccine.2021.10.030. Epub 2021 Oct 30.

Immune thrombocytopenia following immunisation with Vaxzevria ChadOx1-S (AstraZeneca) vaccine, Victoria, Australia

Sally F Gordon, Hazel J Clothier, Hannah Morgan, Jim P Buttery, Linny K Phuong, Paul Monagle, Sanjeev Chunilal, Erica M Wood, Huyen Tran, Jeff Szer, Nigel W Crawford; SAEFVIC and VicSIS investigators

PMID: 34756770 PMCID: PMC8556135 DOI: 10.1016/j.vaccine.2021.10.030

Abstract

Emerging evidence suggest a possible association between immune thrombocytopenia (ITP) and some formulations of COVID-19 vaccine. We conducted a retrospective case series of ITP following vaccination with Vaxzevria ChadOx1-S (AstraZeneca) and mRNA Comirnaty BNT162b2 COVID-19 (Pfizer-BioNTech) vaccines and compare the incidence to expected background rates for Victoria during the first six months of the Australian COVID-19 vaccination roll-out in 2021. Cases were identified by reports to the Victorian state vaccine safety service, SAEFVIC, of individuals aged 18 years or older presenting with thrombocytopenia following COVID-19 vaccination without evidence of thrombosis. Twenty-one confirmed or probable cases of ITP were identified following receipt of AstraZeneca (n = 17) or Pfizer-BioNTech (n = 4) vaccines. This translates to an observed incidence of 8 per million doses for AstraZeneca vaccine, twice the expected background rate of 4.1 per million. The observed rate for Pfizer-BioNTech was consistent with the expected background rate. The median time to onset for the cases post AstraZeneca vaccination was 10 days (range 1-78) and median platelet nadir 5 × 109/L (range 0-67 × 109/L). Hospital presentations or admissions for management of symptoms such as bleeding occurred in 18 (86%) of the cases. The majority of cases (n = 11) required intervention with at least 2 therapy modalities. In

conclusion, we observed a substantially higher than expected rate of ITP following AstraZeneca vaccination. ITP is the second haematological adverse event, distinct from that of thrombosis with thrombocytopenia syndrome (TTS), observed following AstraZeneca vaccination.

Case Reports: BMC Cardiovasc Disord. 2021 Aug 4;21(1):375.

doi: 10.1186/s12872-021-02183-3.

Perimyocarditis following first dose of the mRNA-1273 SARS-CoV-2 (Moderna) vaccine in a healthy young male: a case report

Ammar A Hasnie, Usman A Hasnie, Nirav Patel, Muhammad U Aziz, Min Xie, Steven G Lloyd, Sumanth D Prabhu

PMID: 34348657 PMCID: PMC8334333 DOI: 10.1186/s12872-021-02183-3

Abstract

Background: Half of U.S. adults have received at least one dose of the COVID-19 vaccines produced by either Pfizer, Moderna, or Johnson and Johnson, which represents a major milestone in the ongoing pandemic. Given the emergency use authorizations for these vaccines, their side effects and safety were assessed over a compressed time period. Hence, ongoing monitoring for vaccine-related adverse events is imperative for a full understanding and delineation of their safety profile.

Case presentation: An 22-year-old Caucasian male presented to our hospital center complaining of pleuritic chest pain. Six months prior he had a mild case of COVID-19, but was otherwise healthy. He had received his first dose of the Moderna vaccine three days prior to developing symptoms. Laboratory analysis revealed a markedly elevated troponin and multiple imaging modalities during his hospitalization found evidence of wall motion abnormalities consistent with a diagnosis of perimyocarditis. He was started on aspirin and colchicine with marked improvement of his symptoms prior to discharge.

Conclusions: We present a case of perimyocarditis that was temporally related to COVID-19 mRNA vaccination in an young male with prior

COVID-19 infection but otherwise healthy. Our case report highlights an albeit rare but important adverse event for clinicians to be aware of. It also suggests a possible mechanism for the development of myocardial injury in our patient.

Vacunas. 2022 May:23:68-70. doi: 10.1016/j.vacun.2022.02.002. Epub 2022 May 2

[Case report of Guillain-Barré Syndrome after COVID BNT162b2 mRNA vaccine]

Oscar Sosa-Hernández, Sofía Sánchez-Cardoza

PMID: 35528113 PMCID: PMC9060258 DOI: 10.1016/j.vacun.2022.02.002

Abstract

Introduction: Guillain-Barré syndrome (GBS) is a rare immune disorder that affects peripheral nerves and the cause is not known completely, but it is associated with infections by viruses or bacteria.

Case report: We report the case of a 23-year-old male patient, a health student, who start 24 hours after received the second dose of COVID-19 vaccine, with proximal weakness of the right upper limb, later on the left side with descending and distal progression.

Discussion: GBS cases related to COVID-19 vaccines have been published, the most common being BNT162b2, which is mRNA, there are also cases published after the AZD1222 (ChAdOx1) vaccine, which is a non-replicating viral vector. The incidence of GBS is estimated at 0.43 per 100.00 doses applied, under registered national incidence of 1.1-1.8 per 100,000 persons per year.

Conclusions: It is important to mention that although GBS can occur after vaccination against COVID-19, this incidence is much lower than which occurs in the community in Mexico associated with other diseases, considering more common the presence of cases related to infectious gastrointestinal diseases.

JAAD Int. 2022 Jun:7:164-168. doi: 10.1016/j.jdin.2022.01.009. Epub 2022 Feb 9.

Pityriasis rosea-like rash after messenger RNA COVID-19 vaccination: A case report and review of the literature

Jordan E Buckley, Laura N Landis, Ronald P Rapini

PMID: 35156062 PMCID: PMC8825304 DOI: 10.1016/j.jdin.2022.01.009

Abstract

A spectrum of cutaneous reactions to SARs-CoV-2 (COVID-19) vaccines have been reported in the literature. We present a case of a pityriasis rosea-like rash occurring after Pfizer COVID-19 vaccination and review cases of pityriasis rosea (PR)/PR-like eruption (PR-LE) after mRNA COVID-19 vaccine published in the medical literature. Of the 30 cases found, none experienced severe adverse effects and the rash resolved in an average of 5.6 weeks. It is important for physicians to be aware of this self-limited reaction so they can reassure and appropriately counsel patients that it is safe to receive subsequent vaccine doses despite the cutaneous eruption. Additionally, differences in incidence of this reaction after Pfizer and Moderna vaccination may suggest a differing host immune response incited by these vaccines which warrants further investigation.

Biology (Basel). 2021 Jul 12;10(7):652. doi: 10.3390/biology10070652.

Lymphadenopathy after the Anti-COVID-19 Vaccine: Multiparametric Ultrasound Findings

Giulio Cocco, Andrea Delli Pizzi, Stefano Fabiani, Nino Cocco, Andrea Boccatonda, Alessio Frisone, Antonio Scarano, Cosima Schiavone

PMID: 34356507 PMCID: PMC8301414 DOI: 10.3390/biology10070652

Abstract

Background: Post-anti-COVID-19 vaccine lymphadenopathy has recently been described in the literature. In this study, we investigated the multiparametric US findings of patients with post-vaccine lymphadenopathy and compared these findings among different anti-COVID-19 vaccines. Methods: We retrospectively evaluated 24 patients who underwent US between January and May 2021 due to post-anti-COVID-19 lymphadenopathy. The presence, size, location, number, morphology, cortex-hilum, superb microvascular imaging (SMI) and elastosonography of lymph nodes were assessed. Descriptive statistics were calculated and differences among anti-COVID-19 vaccines were analyzed using the Kruskal-Wallis test. A p-value ≤ 0.05 was considered statistically significant. Results: Sixty-six nodes were assessed. They were axillary (mean 1.6 cm ± 0.16) in 11 patients (45.8%) and supraclavicular (mean 0.9 cm ± 0.19) in 13 patients (54.2%). In 20 patients (83.3%), the number of nodes was ≤3. Prevalent US features included oval morphology (18, 75%), asymmetric cortex with hilum evidence (9, 37.5%), central and peripheral vascular signals (12, 50%) at SMI and elastosonography patterns similar to the surrounding tissue (15, 71.4%). No significant differences among the three anti-COVID-19 vaccines were observed (p > 0.05). Conclusions: Anti-COVID-19 vaccines may

present lymphadenopathy with "worrisome" US features regarding size, shape, morphology, cortex-hilum, SMI and elastosonography. An awareness of the patient's history and US findings may help in the early recognition of this clinical scenario and in the appropriate selection of patients for a short-term US follow-up.

Case Reports: Neurol Sci. 2022 Mar;43(3):1495-1497.doi: 10.1007/s10072-021-05776-0. Epub 2021 Nov 24.

Miller Fisher syndrome following Pfizer COVID-19 vaccine

Ana Abičić, Ivan Adamec, Mario Habek

PMID: 34817727 PMCID: PMC8611397 DOI: 10.1007/s10072-021-05776-0

Abstract

Introduction: Miller Fisher syndrome (MFS) is a rare variant of Guillain-Barre syndrome characterized by ataxia, areflexia, and ophthalmoplegia. We present a case of MFS following Pfizer COVID-19 vaccine.

Case presentation: A previously healthy 24-year-old female presented with binocular horizontal diplopia 18 days after receiving the first dose of Pfizer COVID-19 vaccine (Comirnaty®). Anti-ganglioside testing revealed positive anti-GQ1b antibodies. Intravenous immunoglobulins were administered, in a dose of 2 g per kg of body weight over 5 days. On a follow-up exam 3 weeks after the treatment, clinical improvement was noted with normal bulbomotor examination.

Conclusion: Patients with acute ophthalmoplegia occurring after COVID-19 vaccination should be screened for the presence of anti-GQ1b antibody. If the antibody is present, intravenous immunoglobulin should be administered as it may hasten clinical improvement.

Case Reports: Arch Clin Cases. 2021 Oct 27;8(2):31-36.doi: 10.22551/2021.31.0802.10182. eCollection 2021.

Severe immune thrombocytopenic purpura after SARS-CoV-2 vaccine

Katherine M Cooper, Bradley Switzer

PMID: 34754937 PMCID: PMC8565691 DOI: 10.22551/2021.31.0802.10182

Abstract

Immune thrombocytopenic purpura (ITP) is a rare hematologic condition through to affect 3.3 in 100,000 adults per year in the United States. Many cases of immune thrombocytopenia are diagnosed incidentally with laboratory tests that reveal low platelet count, without a clear cause. However, when platelet counts are very low, patients may show signs of bleeding. Here we present the case of a 24-year-old female with mucocutaneous bleeding ten days after receiving her first dose of SARS-CoV-2 vaccine, who was subsequently found to have severe thrombocytopenia. Extensive work up for new thrombocytopenia was unremarkable suggesting a diagnosis of ITP, potentially secondary to vaccination. Empiric treatment with glucocorticoids was initiated without response prompting the use of intravenous immunoglobulin G. The patient was discharged on hospital day five with a platelet count over 20,000 platelets per microliter. In summary, ITP is a potential sequela of the SARS-CoV-2 vaccine, and otherwise healthy young individuals may be at risk for hematologic side effects.

Eur J Case Rep Intern Med. 2021 Jun 14;8(7):002681.

doi: 10.12890/2021_002681. eCollection 2021

COVID-19 mRNA Vaccine and Myocarditis

Balraj Singh, Parminder Kaur, Leon Cedeno, Taulant Brahimi, Prem Patel, Hartaj Virk, Fayez Shamoon, Manesh Bikkina

PMID: 34268277 PMCID: PMC8276934 DOI: 10.12890/2021_002681

Abstract

Coronavirus disease 2019 (COVID-19) is believed to have originated in the Hua nan South China Seafood Market in Wuhan and can present with a spectrum of clinical manifestations. We report the case of 24-year-old male patient who developed chest pain after administration of the second dose of the Pfizer-BioNTech mRNA COVID-19 vaccine and who was diagnosed with myocarditis on work-up.

Learning points: Localized injection site reactions and systemic adverse effects can occur after administration of the various COVID-19 vaccines.Healthcare providers should maintain a high index of suspicion regarding myocarditis after mRNA COVID-19 vaccination in the appropriate clinical scenario.

Case Reports: BMC Nephrol. 2021 Dec 11;22(1):411. doi: 10.1186/s12882-021-02616-3

First diagnosis of thrombotic thrombocytopenic purpura after SARS-CoV-2 vaccine - case report

Bilgin Osmanodja, Adrian Schreiber, Eva Schrezenmeier, Evelyn Seelow

PMID: 34895163 PMCID: PMC8665311 DOI: 10.1186/s12882-021-02616-3

Abstract

Background: We report a case of a 25-year-old male patient, who developed acquired thrombotic thrombocytopenic purpura (aTTP) after receiving a first dose of mRNA-based SARS-CoV-2 vaccine Spikevax (mRNA-1273, Moderna Biotech, USA). While this is the first case in literature describing a case of aTTP after receiving the Spikevax vaccine, there are two other cases after mRNA-based Covid-19 vaccine and two after adenoviral SARS-CoV-2 vaccine.

Case presentation: The patient presented with persisting malaise, fever, headache, word-finding difficulties, nausea, vomiting, petechial bleeding, and hematuria 13 days after receiving a first dose of vaccination. Laboratory testing showed low platelet count, Coombs-negative hemolytic anemia, and mild acute kidney injury. We excluded vaccine induced immune thrombotic thrombocytopenia (VITT) as another important differential diagnosis and the final diagnosis was established after ADAMTS-13 (A Disintegrin And Metalloproteinase with a ThromboSpondin type 1 motif, member 13) activity was found to be < 1% (reference range > 40%) and ADAMTS-13 antibodies being 72.2 IU/L (reference range < 12 IU/L). We initiated empiric therapy

of plasmapheresis and corticosteroids on admission and started caplacizumab the day after. The patient's thrombocyte count normalized 3 days after admission, hemolysis and acute kidney injury resolved after 2 weeks. The patient received 2 doses of rituximab (1 g each) after the diagnosis of immune TTP was established. One month after the initial presentation, the patient is in good overall condition, but still receives daily caplacizumab due to ADAMTS-13 activity of < 1%.

Conclusions: Low platelet count after vaccination against SARS-CoV-2 has gained attraction after vaccine-induced immune thrombotic thrombocytopenia (VITT) has been described as a rare but severe complication of adenoviral-based vaccines. Thrombotic thrombocytopenic purpura (TTP) is an important differential diagnosis, but there are only few reports of TTP following SARS-CoV-2 vaccination. Despite pathophysiological and clinical differences of both entities, diagnostic uncertainty can result in the acute setting, since they share main symptoms such as headache and neurological alterations in addition to thrombocytopenia. In difference to other cases reported, this patient developed first symptoms of TTP as early as 4 days after vaccination, which suggests that vaccination merely acted as trigger for occult TTP, instead of truly inducing an autoimmunological process.

Case Reports: BMJ Case Rep. 2021 Jul 30;14(7):e242678. doi: 10.1136/bcr-2021-242678.

Immune thrombocytopenic purpura and acute liver injury after COVID-19 vaccine

Adam Hines, Janice Gloria Shen, Coral Olazagasti, Shakil Shams

PMID: 34330722 PMCID: PMC8327821 DOI: 10.1136/bcr-2021-242678

Abstract

A 26-year-old woman was sent to the emergency room by her primary care physician for a new petechial rash and thrombocytopenia 2 weeks after receiving the Moderna mRNA-1273 SARS-CoV-2 vaccine. Her hospital course was complicated by transaminitis. Her platelet count improved to normal on hospital day 5 after receiving intravenous steroids and intravenous immunoglobulin to treat her suspected diagnosis of immune thrombocytopenic purpura. Extensive workup for her thrombocytopenia and transaminitis was unremarkable including ruling out infectious, autoimmune and toxic causes. A liver biopsy was unrevealing and her transaminitis was improved on discharge. Although not proven, the temporal relationship of her vaccination with thrombocytopenia and abnormal liver enzymes points towards the Moderna mRNA-1273 SARS-CoV-2 vaccine as the most likely inciting factor.

Case Reports: Case Rep Rheumatol. 2022 Feb 11:2022:6436839. doi: 10.1155/2022/6436839. eCollection 2022.

New-Onset Systemic Lupus Erythematosus after mRNA SARS-CoV-2 Vaccination

Laisha Báez-Negrón, Luis M Vilá

PMID: 35186342 PMCID: PMC8856802 DOI: 10.1155/2022/6436839

Abstract

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease resulting from the interaction of genetic and environmental factors. In addition, some antiviral vaccines have been associated with the onset of SLE. Few cases of SLE occurring after SARS-CoV-2 mRNA have been reported. Herein, we report the case of a 27-year-old woman with type I diabetes mellitus and family history of SLE who presented with symmetric inflammatory polyarthritis of the proximal interphalangeal joints, metacarpophalangeal joints, wrists, knees, and ankles two weeks after receiving the second dose of the SARS-CoV-2 mRNA-1273 vaccine. Laboratory results revealed positive antinuclear, anti-dsDNA, anti-Ro, and anti-La/SSB antibodies and low C4 levels. She was initially treated with low-dose prednisone and hydroxychloroquine. Hydroxychloroquine was discontinued after she developed an urticarial rash. Subsequently, mycophenolate mofetil was added after she developed proteinuria. This case highlights the importance of considering the diagnosis of SLE in patients who present with inflammatory polyarthritis after COVID-19 vaccination.

Case Reports: Case Rep Rheumatol. 2022 Feb 11:2022:6436839.
doi: 10.1155/2022/6436839. eCollection 2022

New-Onset Systemic Lupus Erythematosus after mRNA SARS-CoV-2 Vaccination

Laisha Báez-Negrón, Luis M Vilá

PMID: 35186342 PMCID: PMC8856802 DOI: 10.1155/2022/6436839

Abstract

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease resulting from the interaction of genetic and environmental factors. In addition, some antiviral vaccines have been associated with the onset of SLE. Few cases of SLE occurring after SARS-CoV-2 mRNA have been reported. Herein, we report the case of a 27-year-old woman with type I diabetes mellitus and family history of SLE who presented with symmetric inflammatory polyarthritis of the proximal interphalangeal joints, metacarpophalangeal joints, wrists, knees, and ankles two weeks after receiving the second dose of the SARS-CoV-2 mRNA-1273 vaccine. Laboratory results revealed positive antinuclear, anti-dsDNA, anti-Ro, and anti-La/SSB antibodies and low C4 levels. She was initially treated with low-dose prednisone and hydroxychloroquine. Hydroxychloroquine was discontinued after she developed an urticarial rash. Subsequently, mycophenolate mofetil was added after she developed proteinuria. This case highlights the importance of considering the diagnosis of SLE in patients who present with inflammatory polyarthritis after COVID-19 vaccination.

Case Reports: Intern Med. 2022 Apr 1;61(7):1033-1037 doi: 10.2169/internalmedicine.8787-21. Epub 2022 Feb 1.

Nephropathy with Gross Hematuria Following COVID-19 mRNA Vaccination

Yoshihito Nihei, Monami Kishi, Hitoshi Suzuki, Ayako Koizumi, Maiko Yoshida, Sho Hamaguchi, Masako Iwasaki, Hiromitsu Fukuda, Hisatsugu Takahara, Masao Kihara, Shigeki Tomita, Yusuke Suzuki

PMID: 35110484 PMCID: PMC9038465 DOI: 10.2169/internalmedicine.8787-21

Abstract

A 28-year-old woman experienced gross hematuria after the administration of the second dose of an messenger ribonucleic acid (mRNA) vaccine (BNT162b2). She was diagnosed with Immunogloblin A nephropathy (IgAN) by a renal biopsy two weeks after vaccination, which revealed a mild increase in mesangial cells and a matrix with co-depositions of galactose-deficient IgA1 and C3 in the mesangial region. The gross hematuria and proteinuria gradually improved without any medication, suggesting that immune activation by the mRNA vaccine may not elicit continuous disease progression of IgAN. Thus, further studies investigating the relationship between mRNA vaccines against COVID-19 and the progression of IgAN should be conducted.

Case Reports: IDCases. 2021:26:e01344. doi: 10.1016/j.idcr.2021.e01344. Epub 2021 Nov 17.

Immune thrombocytopenia relapse post covid-19 vaccine in young male patient

Hana Qasim, Elrazi Ali, Mohamad A Yassin

PMID: 34804803 PMCID: PMC8595970 DOI: 10.1016/j.idcr.2021.e01344

Abstract

Immune thrombocytopenic purpura (ITP) is a blood disorder in which antibodies coating platelets cause platelets destruction in the spleen with resultant low platelets count and an increased tendency for bleeding. Coronavirus disease 2019 (COVID-19) is an illness caused by SARS-COV2; it was first identified in December/2019; though it mainly affects the respiratory system, multisystemic complications are identified. Several ITP cases post mRNA SARS-CoV-2 vaccines were reported, and different pathophysiology theories about the underlying pathophysiology were discussed, but only a few ITP relapse cases have been reported so far. We present a 28-year-old Asian male, a known patient of ITP and in partial remission for eighteen months, who presented to the emergency department with ITP relapse (platelets count of 1 × 10^3 /μL), four days after receiving the second dose of Pfizer SARS-CoV-2 vaccine, which required treatment with intravenous immunoglobulins and dexamethasone. We further discuss the preferred approach in ITP patients who are willing to receive the COVID-19 vaccine.

Case Reports: Cureus. 2021 Jul 28;13(7):e16706. doi: 10.7759/cureus.16706. eCollection 2021 Jul.

Isolated Tachycardia Presenting After Pfizer-BioNTech COVID-19 Vaccination

Charles Tate, Luay Demashkieh, Wael Hakmeh

PMID: 34466331 PMCID: PMC8397831 DOI: 10.7759/cureus.16706

Abstract

A 29-year-old woman presented to the emergency department with palpitations and a heart rate of over 140 beats per minute that started approximately six to eight hours after administration of her second COVID-19 vaccination. Many side effects have been associated with the administration of vaccines. We present the first documented case of tachycardia and palpitations, in the absence of other signs or symptoms, presenting within hours of receiving the Pfizer-BioNTech COVID-19 vaccination. Clinicians should be aware that this appears to be benign and resolved within 24 hours in our patient.

Case Reports: CJ Low Genit Tract Dis. 2022 Apr 1;26(2):186-188.

doi: 10.1097/LGT.0000000000000657.

Acute Vulvar Aphthous Ulceration After COVID-19 Vaccination: 3 Cases

Marlene Wijaya, Cathy Zhao, Emily Forward, Yvonne Nguyen , Ashod Kherlopian, David Jollow, Dalia Cardenes Trujillo, Gayle Fischer

PMID: 35220345 DOI: 10.1097/LGT.0000000000000657

Abstract

Objective: We present a case series of acute vulvar aphthosis immediately following COVID-19 vaccination.

Materials and methods: We describe 3 cases of acute vulvar aphthosis following Pfizer Comirnaty BNT162b2 mRNA and AstraZeneca (Vaxzevria) ChAdOx1 nCoV-19 COVID-19 vaccination in adolescent girls.

Results: All patients developed vulvar aphthosis within a few days after receiving COVID-19 vaccination. The onset of vulvar aphthosis was observed to correlate with the dosing schedule known to produce the highest likelihood of adverse effects, first dose in AstraZeneca (Vaxzevria) ChAdOx1 nCoV-19 and second dose in Pfizer Comirnaty BNT162b2 mRNA COVID-19 vaccine. Two patients required oral prednisolone and hospital admission for indwelling urinary catheterization due to urinary retention. Full disease resolution with no sequalae was achieved in all three patients.

Conclusions: Clinicians should be aware of the possible risk of vulvar aphthosis after COVID-19 vaccine administration. Nevertheless, its occurrence should not prevent affected patients from receiving future doses of COVID-19 vaccines, as the mortality and morbidity of COVID-19 infection significantly outweigh the risk of vulvar aphthosis recurrence.

Case Reports: Emerg Infect Dis. 2021 Jul;27(7):1944-1948.

doi: 10.3201/eid2707.210594. Epub 2021 May 25.

Multisystem Inflammatory Syndrome after SARS-CoV-2 Infection and COVID-19 Vaccination

Mark B Salzman, Cheng-Wei Huang, Christopher M O'Brien, Rhina D Castillo

PMID: 34034858 PMCID: PMC8237872 DOI: 10.3201/eid2707.210594

Abstract

We report 3 patients in California, USA, who experienced multisystem inflammatory syndrome (MIS) after immunization and severe acute respiratory syndrome coronavirus 2 infection. During the same period, 3 adults who were not vaccinated had MIS develop at a time when ≈7% of the adult patient population had received >1 vaccine.

Case Reports: Reports Front Neurol. 2022 Feb 2:12:820049.

doi: 10.3389/fneur.2021.820049. eCollection 2021.

Case Series: Acute Hemorrhagic Encephalomyelitis After SARS-CoV-2 Vaccination

Mihai Ancau, Friederike Liesche-Starnecker, Johanna Niederschweiberer, Sandro M Krieg3, Claus Zimmer, Charlotte Lingg, Daniela Kumpfmüller 5, Benno Ikenberg, Markus Ploner, Bernhard Hemmer6, Silke Wunderlich 1, Mark Mühlau, Benjamin Knier

PMID: 35185757 PMCID: PMC8847228 DOI: 10.3389/fneur.2021.820049

Abstract

We present three cases fulfilling diagnostic criteria of hemorrhagic variants of acute disseminated encephalomyelitis (acute hemorrhagic encephalomyelitis, AHEM) occurring within 9 days after the first shot of ChAdOx1 nCoV-19. AHEM was diagnosed using magnetic resonance imaging, cerebrospinal fluid analysis and brain biopsy in one case. The close temporal association with the vaccination, the immune-related nature of the disease as well as the lack of other canonical precipitating factors suggested that AHEM was a vaccine-related adverse effect. We believe that AHEM might reflect a novel COVID-19 vaccine-related adverse event for which physicians should be vigilant and sensitized..

Case Reports: Pediatr Blood Cancer. 2022 Jun;69(6):e29681.

doi: 10.1002/pbc.29681. Epub 2022 Apr 4.

COVID-19 vaccine (mRNA BNT162b2) and COVID-19 infection-induced thrombotic thrombocytopenic purpura in adolescents

Luna Vorster, Susan E Kirk, Eyal Muscal, Jenny M Despotovic, Clay T Cohen, Sarah E Sartain

PMID: 35373880 PMCID: PMC9088367 DOI: 10.1002/pbc.29681

Abstract

The mRNA COVID-19 vaccine and COVID-19 infection caused by the SARS-CoV-2 virus may be immunologic triggers for the development of thrombotic thrombocytopenic purpura (TTP). There is not yet literature that discusses TTP induced by COVID-19 vaccination or infection in pediatric or adolescent patients. We describe three adolescents presenting with TTP (both de novo and relapsed disease) following administration of the Pfizer COVID-19 vaccine or after COVID-19 infection. Our observations demonstrate that the Pfizer-BioNTech mRNA vaccine and COVID-19 infection can act as triggers for the development/relapse of both congenital and acquired TTP..

Case Reports: Reports Blood Coagul Fibrinolysis. 2022 Jan 1;33(1):67-70. doi: 10.1097/MBC.0000000000001082.

ChAdOx1 nCoV-19 vaccine-associated thrombocytopenia: three cases of immune thrombocytopenia after 107 720 doses of ChAdOx1 vaccination in Thailand

Noppacharn Uaprasert, Krissana Panrong, Songphol Tungjitviboonkun, Kulwara Dussadee, Pakanat Decharatanachart, Peerapat Kaveevorayan, Rossanun Shoosanglertwijit, Phandee Watanaboonyongcharoen, Udomsak Bunworasate, Ponlapat Rojnuckarin

PMID: 34483267 DOI: 10.1097/MBC.0000000000001082

Abstract

We reported three cases of immune thrombocytopenia (ITP) that developed within 6 weeks after ChAdOx1 nCoV-19 vaccination. Antiplatelet factor 4 antibodies were undetectable in all three cases. Therefore, vaccine-induced immune thrombotic thrombocytopenia was very unlikely. Other potential causes of thrombocytopenia were excluded. Their clinical presentations, severity of thrombocytopenia and outcomes were varied. Only one ITP case, an 80-year-old man, received ITP treatments and achieved complete response after 2 weeks of eltrombopag. An 84-year-old man had spontaneous complete remission, and a 55-year-old woman had partial platelet recovery without ITP treatments. Among 107 720 Thais administered the ChAdOx1 vaccine between 16 March and 10 May 2021, these three ITP cases resulted in an estimated risk of ITP of at least one per 36 000 doses, which was approximately similar to the risk of ITP after measles-mumps-rubella immunization. This raises the concern of an increased risk of ITP after ChAdOx1 vaccination.

Case Reports: Am J Case Rep. 2021 Jul 21:22:e931478. doi: 10.12659/AJCR.931478.

A Case of Immune Thrombocytopenia After BNT162b2 mRNA COVID-19 Vaccination

Eleanor R King, Elizabeth Towner

PMID: 34285180 PMCID: PMC8311388 DOI: 10.12659/AJCR.931478

Abstract

BACKGROUND Immune thrombocytopenic purpura (ITP) is an immune response that destroys platelets and increases the risk of bleeding, which can range from bruising to intracranial hemorrhage. ITP is a known complication of coronavirus disease 2019 (COVID-19). In the first studies of the BNT162b2 messenger RNA (mRNA) COVID-19 vaccine, there were no reports of ITP and the incidence of serious adverse events (AEs) was low overall. Here, we present a case of ITP as a complication of the BNT162b2 mRNA COVID-19 vaccine. CASE REPORT Three days after receiving a second dose of the BNT162b2 mRNA COVID-19 vaccine, a 39-year-old woman presented with a petechial rash on her trunk, legs, and arms, and fatigue and muscle aches. At the time of her hospital admission, her platelet count was 1000/μL. A peripheral smear showed profound thrombocytopenia. During the course of the patient's hospitalization, she was treated with 2 units of platelets, 2 infusions of i.v. immunoglobulin, and i.v. methylprednisolone. Her platelet count increased to 92 000/μL on the day of discharge and she was prescribed a tapered dose of oral prednisone. One day later, her rash had resolved and her platelet count was 243 000/μL. The patient recovered completely with no complications. CONCLUSIONS ITP should be considered a severe AE of the BNT162b2 mRNA COVID-19 vaccine. Knowing the early signs and symptoms of ITP will become increasingly important as more of the population receives this vaccine. Quick diagnosis and management are essential to avoid life-threatening bleeding.

Case Reports: Rev Med Inst Mex Seguro Soc. 2022 Mar 1;60(2):224-228.

[Bell's Palsy Secondary to COVID-19 Vaccine Pfizer: Case report]

José Octavio González-Enríquez

PMID: 35759681 PMCID: PMC10396063

Abstract

Background: BNT162b2 (Pfizer-BioNTech) is a nucleosidemodified mRNA vaccine formulated with lipid nanoparticles for the prevention of COVID-19 disease caused by SARSCoV-2 infection. In early December 2020, BNT162b2 received an emergency use authorization, initial efficacy and safety data have been released, consumer / patient information sheets for vaccines distributed in North America do not warn of Bell's palsy as a possible adverse effect. We reported the case of a patient who developed Bell's palsy on the right side in less than 3 hours after the application of the first dose of the Pfizer-BioNTech COVID-19 vaccine.

Clinical case: 32-year-old latina woman who developed right facial paralysis after receiving the first dose of the BNT162b2 mRNA vaccine on April 7, 2021; with right facial paresis, absence of forehead wrinkles, lip-buccal sulcus and nasolabial fold; spasms of the facial and periorbital muscles, laterocervical pain; possible etiologies were ruled out, prednisone, gabapentin and topiramate. CT without alterations, achieving gradual improvement; until full functional recovery after 15 days. With benign evolution, congruent with the natural history of the disease, classifying it as idiopathic Bell's palsy.

Conclusions: Although a causal relationship cannot be established, the time and mode of appearance of the paralysis suggested a relationship with the application of the BNT162b2 vaccine. Given the recommendation of the health authorities to monitor the cases of

Bell's palsy, and the surveillance of events supposedly attributable to vaccination (ESAVI) and as it is the first case reported in the literature, in the mexican population, we believe that this case should be shared with the scientific community in a timely manner.

Case Reports: Ann Med Surg (Lond). 2021 Sep:69:102803. doi: 10.1016/j.amsu.2021.102803. Epub 2021 Sep 6.

Post-COVID-19 vaccine acute hyperactive encephalopathy with dramatic response to methylprednisolone: A case report

Abdulrahman F Al-Mashdali, Yaser M Ata, Nagham Sadik

PMID: 34512961 PMCID: PMC8420261 DOI: 10.1016/j.amsu.2021.102803

Abstract

Background: Since introducing the SARS-CoV-2 vaccination, different adverse effects and complications have been linked to the vaccine. Variable neurological complications have been reported after receiving the COVID-19 vaccine, such as acute encephalopathy.

Case presentation: In this report, we describe a 32-year-old previously healthy man who developed acute confusion, memory disturbances, and auditory hallucination within 24 hours from getting his first dose of the COVID-19 Moderna vaccine.EEG showed features of encephalopathy, CSF investigations were nonspecific, and MRI head did not depict any abnormality. He received five days of ceftriaxone and acyclovir without any benefit.

Discussion: Extensive workup for different causes of acute encephalopathy, including autoimmune encephalitis, was negative. Also, Our patient improved dramatically after receiving methylprednisolone, supporting an immune-mediated mechanism behind his acute presentation. Accordingly, we think the COVID-19 vaccine is the only possible cause of our patient presentation, giving the temporal relationship and the absence of other risk factors for encephalopathy.

Conclusion: the clinician should be aware of the possible neurological complications of the different COVID-19 vaccines. Further research is needed to clarify the pathophysiology of such complications.

Case Reports: Acta Clin Belg. 2022 Dec;77(6):976-979. doi: 10.1080/17843286.2021.2015101. Epub 2021 Dec 9.

Aseptic meningitis after SARS-CoV-2 Pfizer/ BioNTech vaccination

Valérie Dupon, Stijn Arnaert, Eline Van Haute, Friedel Vulsteke, Günter Diet, Gert De Schoenmakere

PMID: 34882515 DOI: 10.1080/17843286.2021.2015101

Abstract

Objective: Aseptic meningitis is a rare, but possible severe side effect after SARS-CoV-2 Pfizer/BioNTech vaccination.

Case presentation: Recently, a first case of aseptic meningitis after the first shot of mRNA-BNT162b2 SARS-CoV-2 (Pfizer/BioNTech) vaccine was reported. We present the first case of a 34-year-old woman without relevant medical history developing aseptic meningitis after her 2nd Pfizer/BioNTech vaccination. She was admitted with severe headache and fever for 5 days prior to her presentation at the emergency department. An extensive work-up of the clinical problem could narrow the differential diagnosis. Symptoms resolved after methylprednisolone therapy.

Conclusion: This case highlights a rare but important side effect after vaccination that primary physicians and neurologists should be aware of in order to identify and efficiently manage these patients.

Case Reports: Ocul Immunol Inflamm. 2021 May 19;29(4):753-757.

doi: 10.1080/09273948.2021.1957123. Epub 2021 Aug 3.

Bilateral Multifocal Choroiditis following COVID-19 Vaccination

Mallika Goyal, Somasheila I Murthy, Sridhar Annum

PMID: 34344280 DOI: 10.1080/09273948.2021.1957123

Abstract

Purpose: To report a case of bilateral choroiditis following COVID-19 vaccination.

Study Design: Case report.

Results: A 34-year old male presented with visual loss one week after the second dose of COVID-19 vaccine. Examination showed large serous detachment of the macula in the right eye and severe choroidal thickening noted on ultrasonography in both eyes. The patient's condition improved rapidly with oral corticosteroids with significant resolution of the serous detachments within two weeks of initiating treatment and complete visual recovery subsequently.

Conclusions: The onset of ocular symptoms starting within one week following vaccination suggests an inflammatory or autoimmune response to the vaccine. Ophthalmologists should consider the option of autoimmune and other inflammatory ocular problems, which may manifest as uveitis, following COVID-19 vaccination. Timely diagnosis and treatment with corticosteroids can result in good visual and structural outcome.

Case Reports: Cureus. 2021 Jun 26;13(6):e15935. doi: 10.7759/cureus.15935. eCollection 2021 Jun.

Bell's Palsy After 24 Hours of mRNA-1273 SARS-CoV-2 Vaccine

Haris Iftikhar, Syeda Mishkaat U Noor, Maarij Masood1, Khalid Bashir

PMID: 34336436 PMCID: PMC8312995 DOI: 10.7759/cureus.15935

Abstract

Coronavirus disease 2019 (COVID-19) has become the fastest-spreading pandemic of the 21st century. Various vaccines have been made available via emergency use authorization. Currently, two mRNA vaccines are being offered internationally, BNT162b2 and mRNA-1273. In randomized trials of these vaccines, the incidence of Bell's palsy in the vaccinated group does not statistically exceed the placebo group. The FDA recommends increased surveillance for Bell's palsy as a potential side effect with the administration of the vaccines among larger populations globally. There have been a few case reports of Bell's palsy associated with mRNA vaccines. Type I interferons have been proposed as the potential mechanism linking mRNA COVID-19 vaccines to Bell's palsy. Here, we report the case of a 36-year-old previously healthy patient who developed symptoms of Bell's palsy along with left-arm numbness, tingling, and subjective weakness masquerading as a subacute stroke after receiving the second dose of the mRNA-1273 vaccine. CT and MRI of the brain were unremarkable. He was discharged home with a diagnosis of Bell's palsy and improved on follow-up. mRNA COVID-19 vaccines may be considered a risk factor for Bell's palsy.

Case Reports: Rinsho Ketsueki. 2021;62(10):1519-1521. doi: 10.11406/rinketsu.62.1519

[Development of thrombocytopenic purpura following BNT162b2 mRNA COVID-19 vaccination]

Kouki Shibata, Haruyuki Tanaka, Atsushi Otani, Masayuki Kubo, Atsushi Hasegawa, Itsuto Amano

PMID: 34732627 DOI: 10.11406/rinketsu.62.1519

Abstract

Because the coronavirus disease 2019 (COVID-19) pandemic is still rampant, vaccination is being promoted worldwide. However, the safety of various COVID-19 vaccines remains poorly understood. We herein report the case of a 37-year-old woman who experienced thrombocytopenia following BNT162b2 mRNA COVID-19 vaccination. The patient presented with purpura on the extremities 10 days after the first vaccination. She had marked thrombocytopenia and no thrombosis. Thrombocytopenia resolved spontaneously. Given the possibility of occurrence of post-vaccination thrombocytopenia, vaccinated persons should be instructed to consult a medical institution if they experience bleeding symptoms.

Case Reports: Reports Neurohospitalist. 2022 Jul;12(3):536-540. doi: 10.1177/19418744221090426. Epub 2022 Apr 17.

Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease and Transverse Myelitis Probably Associated With SARS-CoV-2 mRNA Vaccines: Two Case Reports

Jonathan Morena, Tirisham V Gyang

PMID: 35755241 PMCID: PMC9214935 DOI: 10.1177/19418744221090426

Abstract

Post-vaccination CNS demyelinating syndromes have been reported with a variety of vaccines including the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccines. We report a case of myelin oligodendrocyte glycoprotein antibody-associated disease (MOGAD) probably associated with the mRNA-1273 (by Moderna) SARS-CoV-2 mRNA vaccine, and a case of acute transverse myelitis (ATM) probably associated with the BNT162b2 (by Pfizer-BioNTech) SARS-CoV-2 mRNA vaccine. A 38-year-old man developed left blurry vision, lower extremity weakness/paresthesia, and bowel/bladder dysfunction three days after receiving the Moderna vaccine. He was diagnosed with left optic neuritis and longitudinally extensive transverse myelitis; he tested positive for the myelin oligodendrocyte glycoprotein antibody. A 39-year-old woman presented with progressive lower extremity weakness/numbness 7 days after receiving the Pfizer vaccine. She was diagnosed with ATM. Both patients improved with intravenous corticosteroids. The association between CNS demyelinating syndromes and vaccination has been reported for many years. We describe two cases of acute CNS demyelinating events probably associated with both

mRNA variations of the SARS-CoV-2 vaccines. While the risk of CNS demyelinating events is non-negligible, the incidence is very low and the overall benefits of vaccination outweigh the marginal risk. However, providers should be aware of this potential neurological complication of the SARS-CoV-2 mRNA vaccines.

Case Reports:Acta Neurol Taiwan. 2022 Jan 25:31(1):46-51.

The First Guillain-Barr? Syndrome After SARS-CoV-2 Vaccination in Taiwan

Siao-Chu Su, Rong-Kuo Lyu, Chun-Wei Chang, Wei-En Johnny Tseng

PMID: 34988954

Abstract

Purpose: Guillain-Barre syndrome (GBS) is an immune-mediated disease of the peripheral nerves and could be fatal and has severe neurologic complications. This study herein reports the clinical course of the first patient of GBS after SARS-CoV-2 Oxford/AstraZeneca vaccination in Taiwan.

Case report: A 38-year-old woman who presented with progressive numbness and weakness of both upper and lower limbs over 1 week. Ascending patterns was noted, and bilateral leg were more severe with diffused absence of deep tendon reflex. Clinical examination and investigation findings confirmed with the diagnosis of GBS. Deterioration of muscle power and respiratory failure had developed during the hospitalization. She had no common GBS predisposing history, but she had received her first SARS-CoV-2 Oxford/AstraZeneca vaccination intramuscularly 10 days prior to her symptoms. Clinical symptoms had much improved after double filtration plasmapheresis.

Conclusion: Our case is the first case of GBS developed after AstraZeneca vaccine injection in Taiwan, presenting with atypical manifestation of early facial and bulbar involvement. The vaccination associated GBS should be closely monitored as other safety profile, since it may result in respiratory failure and severe neurologic complications. Keyword: Guillain-Barre Syndrome, SARS-CoV-2 Vaccination.

Case Reports:J Med Cases. 2022 Jan;13(1):1-4. doi: 10.14740/jmc3827. Epub 2022 Jan 17.

Acquired Hemophilia A Developed Post COVID-19 Vaccine: An Extremely Rare Complication

PMID: 35211227 PMCID: PMC8827248 DOI: 10.14740/jmc3827

PMID: 34988954

Abstract

Acquired hemophilia A (AHA) is a rare autoimmune bleeding disorder caused by circulating autoantibodies (inhibitor) directed against coagulation factor VIII (FVIII). We report a 39-year-old single female who presented to emergency department with sudden onset gross hematuria 10 days following her first dose of Pfizer-BioNTech severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) mRNA (coronavirus disease 2019 (COVID-19)) vaccine. Coagulation profile revealed isolated prolongation of the activated partial thromboplastin time due to FVIII deficiency with normal von Willebrand factor and activity. Mixing study revealed time-dependent inhibitor pattern that was successively identified as directed against FVIII using the Nijmegen-modified Bethesda assay. FVIII inhibitor in a titer of 17.2 Bethesda Units/mL was detected. While thrombosis is a frequent complication of severe COVID-19 infection, on the other hand, bleeding is rare in the setting of COVID-19 infection/vaccination with no anticoagulants. Till date, a couple of cases of acquired hemophilia developed after receiving mRNA derived COVID-19 vaccines (Pfizer-BioNTech SARS-CoV-2 mRNA vaccine and Moderna mRNA vaccines) had been reported. It is important to raise the awareness about this rare side effect that might be directly induced by the mRNA COVID-19 vaccine or that the vaccine could have triggered it in a genetically predisposed individual. We

recommend considering screening for an inhibitor (by mixing study) in cases with otherwise unexplained onset hemorrhagic disorder and/or isolated activated partial thromboplastin time prolongation.

Case Reports: Reports J Fr Ophtalmol. 2022 Jun;45(6):597-602.

doi: 10.1016/j.jfo.2022.01.006. Epub 2022 May 13.

Central serous chorioretinopathy following the BNT162b2 mRNA vaccine

J Hanhart, E Roditi , L M Wasser, W Barhoum, D Zadok, K Brosh

PMID: 35577701 PMCID: PMC9099405 DOI: 10.1016/j.jfo.2022.01.006

Abstract

Background and purpose: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has accelerated vaccine development. The BNT162b2 messenger RNA (mRNA) vaccine is being administered worldwide. The purpose of this case series is to report a possible association between the BNT162b2 mRNA vaccine and Central serous chorioretinopathy (CSC). Although rare, CSC has been reported following the administration of anthrax, influenza and smallpox vaccines.

Methods: Four individuals who developed CSC following the BNT162b2 mRNA vaccine were examined in our institution using multimodal imaging of the retina, and their demographic data were analyzed and compared to all the similar cases published to date.

Results: Four patients (3 males, 1 female) between the ages of 35 and 65 presented with acute CSC (n=3) and relapsed CSC (n=1) within the first week following the administration of the BNT162b2 mRNA vaccine. Three individuals demonstrated hyper-reflective foci in the outer segments of the retina.

Conclusions: The timing of the BNT162b2 mRNA vaccine administration relative to the development of CSC suggests a possible causal relationship. Further research is necessary to explore this possible association.

Case Reports: Ann Neurol. 2021 Aug;90(2):315-318. doi: 10.1002/ana.26144. Epub 2021 Jul 2.

Guillain-Barré Syndrome Variant Occurring after SARS-CoV-2 Vaccination

Christopher Martin Allen, Shelby Ramsamy, Alexander William Tarr Patrick Jason Tighe, William Lucien Irving, Radu Tanasescu, Jonathan Rhys Evans

PMID: 34114269 DOI: 10.1002/ana.26144

Abstract

Although SARS-CoV-2 vaccines are very safe, we report 4 cases of the bifacial weakness with paresthesias variant of Guillain-Barré syndrome (GBS) occurring within 3 weeks of vaccination with the Oxford-AstraZeneca SARS-CoV-2 vaccine. This rare neurological syndrome has previously been reported in association with SARS-CoV-2 infection itself. Our cases were given either intravenous immunoglobulin, oral steroids, or no treatment. We suggest vigilance for cases of bifacial weakness with paresthesias variant GBS following vaccination for SARS-CoV-2 and that postvaccination surveillance programs ensure robust data capture of this outcome, to assess for causality. ANN NEUROL 2021;90:315-318.

Case Reports: Front Cardiovasc Med. 2022 Mar 4:9:839090.

doi: 10.3389/fcvm.2022.839090. eCollection 2022.

A Case Series of Myocarditis Following Third (Booster) Dose of COVID-19 Vaccination: Magnetic Resonance Imaging Study

Arthur Shiyovich, Guy Witberg, Yaron Aviv, Ran Kornowski, Ashraf Hamdan

PMID: 35310989 PMCID: PMC8930918 DOI: 10.3389/fcvm.2022.839090

Abstract

Background: Myocarditis has been reported following the first two doses of Pfizer-BNT162b2 messenger RNA (mRNA) COVID-19 vaccination. Administration of a third dose (booster) of the vaccine was initiated recently in Israel.

Objective: The aim of this study was to describe the characteristics of patients referred for cardiac magnetic resonance (CMR) imaging with myocarditis following the booster.

Methods: Patients referred for CMR imaging with a clinical diagnosis of myocarditis within 21 days following the booster, between July 13 and November 11, 2021, were analyzed.

Results: Overall, 4 patients were included, 3/4 (75%) were men, and the mean age was 27 ± 10 years. The time from booster administration to the onset of symptoms was 5.75 ± 4.8 days (range 2-14). Obstructive coronary artery disease was excluded in 3 of the patients (75%). CMR was performed 34 ± 15 days (range 8-47 days) following the 3rd vaccination. The mean left ventricular ejection fraction was 61 ± 7%

(range 53-71%), and regional wall motion abnormalities were present in one of the patients. Global T1 was increased in one of the patients, while focal T1 values were increased in 3 of the patients. Global T2 was increased in one of the patients, while focal T2 values were increased in all the patients. Global ECV was increased in 3 of the patients, while focal ECV was increased in all the patients. Median late gadolinium enhancement (LGE) was 4 ± 3% (range 1-9%), with the inferolateral segment as the most common location (3 of the 4 patients). All the patients met the Updated Lake Louise Criteria.

Conclusions: Patient characteristics and CMR imaging findings of myocarditis following the administration of the booster vaccine are relatively mild and consistent with those observed with the first two doses. Although larger-scale prospective studies are necessary, these initial findings are somewhat reassuring.

Case Reports: BMC Oral Health. 2022 Mar 24;22(1):90. doi: 10.1186/s12903-022-02124-2.

Oral erythema multiforme after Pfizer-BioNTech COVID-19 vaccination: a report of four cases

Massimo Petruzzi, Sara Galleggiante, Sabrina Messina, Fedora Della Vella

PMID: 35331228 PMCID: PMC8943505 DOI: 10.1186/s12903-022-02124-2

Abstract

Background: The 2019 Coronavirus disease (Covid-19) has affected thousands of people worldwide. To date, vaccines appear to be the only method to prevent and reduce mortality. Four vaccinations have been outwardly approved by European Medicine Agency (EMA) in Europe: BNT162b2 (Comirnaty-BioNTech/Pfizer), mRNA-1273 (Spikevax-Moderna), ChAdOx1 (VaxzevriaAstrazeneca), and Ad26. COV2-S (Janssen-Johnson&Johnson). After vaccination, local and systemic adverse effects can occur. Cutaneous reactions like urticaria, local injection site pain, morbilliform rash have been documented after vaccination.

Cases presentation: We report four cases of oral erythema multiforme flare arising after BNT162b2 vaccination administration. All the patients denied previous erythema-like and herpetic manifestations history. Two of the reported cases (number 1 and 2) presented with both oral and cutaneous lesions, while cases 3 and 4 showed only oral manifestations. Three of the cases presented the erythema after the first vaccination dosage administration, only one case reported lesions after the second vaccination dosage administration. All the cases were treated with prednisone via oral administration and topical 0.05% clobetasol ointment.

Conclusions: The present reports represent some of the few cases of erythema multiforme occurring as a side effect of the BNT162b2 COVID-19 vaccination. The causal role of the vaccine for the erythema multiforme has not been proven yet; nevertheless, it is not uncommon for medications to trigger this disease. The vaccine could surface a silent herpes virus infection, which would induce the erythema multiforme instead.

Review: J Formos Med Assoc. 2022 May;121(5):1003-1007. doi: 10.1016/j.jfma.2021.12.028. Epub 2022 Jan 5.

Pityriasis Rosea-like eruptions following COVID-19 mRNA-1273 vaccination: A case report and literature review

Chii-Shyan Wang , Hsuan-Hsiang Chen, Shih-Hao Liu

PMID: 35012825 PMCID: PMC8731224 DOI: 10.1016/j.jfma.2021.12.028

Abstract

Pityriasis rosea (PR) is a self-limited disease with exanthematous papulosquamous rashes mostly associated with reactivation of human herpesvirus (HHV)-6 or HHV-7. PR-like eruptions, which occur along with peripheral eosinophilia, interface dermatitis, and eosinophils on histopathology, may result from medications or vaccinations. Previously, PR-like eruptions had been noted following vaccination for influenza or other vaccines. During this pandemic, acute COVID-19 infection has been related to PR or PR-like eruptions in several cases. Various COVID-19 vaccines associated with PR-like eruptions were rarely reported. Herein, we report a case of cutaneous PR-like eruptions following COVID-19 mRNA-1273 vaccination.

Case Reports: JBMC Oral Health. 2022 Mar 24;22(1):90. doi: 10.1186/s12903-022-02124-2.

Oral erythema multiforme after Pfizer-BioNTech COVID-19 vaccination: a report of four cases

Massimo Petruzzi, Sara Galleggiante, Sabrina Messina, Fedora Della Vella

PMID: 35331228 PMCID: PMC8943505 DOI: 10.1186/s12903-022-02124-2

Abstract

Background: The 2019 Coronavirus disease (Covid-19) has affected thousands of people worldwide. To date, vaccines appear to be the only method to prevent and reduce mortality. Four vaccinations have been outwardly approved by European Medicine Agency (EMA) in Europe: BNT162b2 (Comirnaty-BioNTech/Pfizer), mRNA-1273 (Spikevax-Moderna), ChAdOx1 (VaxzevriaAstrazeneca), and Ad26. COV2-S (Janssen-Johnson&Johnson). After vaccination, local and systemic adverse effects can occur. Cutaneous reactions like urticaria, local injection site pain, morbilliform rash have been documented after vaccination.

Cases presentation: We report four cases of oral erythema multiforme flare arising after BNT162b2 vaccination administration. All the patients denied previous erythema-like and herpetic manifestations history. Two of the reported cases (number 1 and 2) presented with both oral and cutaneous lesions, while cases 3 and 4 showed only oral manifestations. Three of the cases presented the erythema after the first vaccination dosage administration, only one case reported lesions after the second vaccination dosage administration. All the cases were treated

with prednisone via oral administration and topical 0.05% clobetasol ointment.

Conclusions: The present reports represent some of the few cases of erythema multiforme occurring as a side effect of the BNT162b2 COVID-19 vaccination. The causal role of the vaccine for the erythema multiforme has not been proven yet; nevertheless, it is not uncommon for medications to trigger this disease. The vaccine could surface a silent herpes virus infection, which would induce the erythema multiforme instead.

Case Reports: TH Open. 2021 Jul 30;5(3):e315-e318. doi: 10.1055/s-0041-1731774. eCollection 2021 Jul.

Secondary Immune Thrombocytopenia (ITP) Associated with ChAdOx1 Covid-19 Vaccination - A Case Report

Martin Koch, Sybille Fuld, Jan M Middeke, Julia Fantana, Simone von Bonin, Jan Beyer-Westendorf

PMID: 34377889 PMCID: PMC8324423 DOI: 10.1055/s-0041-1731774

Abstract

Novel mRNA and vector-based covid-19 vaccinations have shown high efficacy in preventing symptomatic COVID-19 infections. Compared with the number of performed vaccinations, rates of severe side effects seem low. Rare prothrombotic coagulation disorders with suspected association to ChAdOx1 nCoV-19 (AstraZeneca) have been reported. These cases have gathered considerable media attention and caused a temporary pause of usage of the AstraZeneca vaccine in Europe and several other countries and are currently discussed as vaccine-induced immune thrombotic thrombocytopenia (VITT). However, hemorrhagic complications from ChAdOx1 nCoV-19 vaccination have also been reported but, so far, received less public attention despite considerable potential for life-threatening complications. Here we present a case of severe immune thrombocytopenia after ChAdOx1 covid-19 vaccination and its successful primary management

Case Reports: J Clin Med. 2021 Dec 19;10(24):5960. doi: 10.3390/jcm10245960.

Uveitis and Other Ocular Complications Following COVID-19 Vaccination

Elena Bolletta, Danilo Iannetta, Valentina Mastrofilippo, Luca De Simone, Fabrizio Gozzi, Stefania Croci, Martina Bonacini, Lucia Belloni, Alessandro Zerbini, Chantal Adani, Luigi Fontana , Carlo Salvarani, Luca Cimino

PMID: 34945256 PMCID: PMC8704915 DOI: 10.3390/jcm10245960

Abstract

Coronavirus disease 2019 (COVID-19) vaccines can cause transient local and systemic post-vaccination reactions. The aim of this study was to report uveitis and other ocular complications following COVID-19 vaccination. The study included 42 eyes of 34 patients (20 females, 14 males), with a mean age of 49.8 years (range 18-83 years). The cases reported were three herpetic keratitis, two anterior scleritis, five anterior uveitis (AU), three toxoplasma retinochoroiditis, two Vogt-Koyanagi-Harada (VKH) disease reactivations, two pars planitis, two retinal vasculitis, one bilateral panuveitis in new-onset Behçet's disease, three multiple evanescent white dot syndromes (MEWDS), one acute macular neuroretinopathy (AMN), five retinal vein occlusions (RVO), one non-arteritic ischemic optic neuropathy (NAION), three activations of quiescent choroidal neovascularization (CNV) secondary to myopia or uveitis, and one central serous chorioretinopathy (CSCR). Mean time between vaccination and ocular complication onset was 9.4 days (range 1-30 days). Twenty-three cases occurred after Pfizer-BioNTech vaccination (BNT162b2 mRNA), 7 after Oxford-AstraZeneca vaccine (ChAdOx1 nCoV-19), 3 after ModernaTX vaccination (mRNA-1273), and 1 after Janssen Johnson & Johnson vaccine (Ad26.COV2). Uveitis and other ocular complications may develop after the administration of COVID-19 vaccine.

Case Reports: J Formos Med Assoc. 2022 Sep;121(9):1872-1876.

doi: 10.1016/j.jfma.2022.02.017. Epub 2022 Mar 14.

A case of acquired hemophilia A and bullous pemphigoid following SARS-CoV-2 mRNA vaccination

Pei-An Fu, Chien-Wei Chen, Ya-Ting Hsu, Kai-Che Wei, Peng-Chan Lin, Tsai-Yun Chen

PMID: 35321820 PMCID: PMC8919791 DOI: 10.1016/j.jfma.2022.02.017

Abstract

Acquired hemophilia is a rare disease resulting from autoantibodies against endogenous factor VIII (FVIII), which associates with bleeding and a high mortality rate. The pathophysiology is still unclear. Recent studies suggest genetic and environmental factors trigger the breakdown of immune tolerance. We report a 77-year-old Taiwanese man presented with multiple ecchymoses and some hemorrhagic blisters three weeks after SARS-CoV-2 mRNA (Moderna) vaccination. Isolated activated partial thromboplastin time (aPTT) prolongation was found. Acquired hemophilia A (AHA) was confirmed by low factor VIII (FVIII) activity and high titer of FVIII inhibitor. The pathohistology of skin biopsy further supported the concomitant diagnosis of bullous pemphigoid. To date, 6 cases of acquired hemophilia A following SARS-CoV-2 mRNA vaccination were reported worldwide. We reviewed and summarized the characteristics of these cases. We also discussed the rare finding of concomitant acquired hemophilia A and bullous pemphigoid. Bullous pemphigoid results from autoantibody against epithelial basement membrane zone of skin. In this article, we proposed possibility of SARS-CoV-2 mRNA vaccine associated autoimmunity against FVIII and epithelial basement membrane zone.

Case Reports: Neurol Sci. 2021 Nov;42(11):4747-4749.

doi: 10.1007/s10072-021-05467-w. Epub 2021 Jul 17.

A case of acute demyelinating polyradiculoneuropathy with bilateral facial palsy after ChAdOx1 nCoV-19 vaccine

Nicola Alessandro Nasuelli, Fabiola De Marchi, Michela Cecchin, Irene De Paoli, Susanna Onorato, Roberto Pettinaroli, Giovanni Savoini, Laura Godi

PMID: 34272622 PMCID: PMC8285283 DOI: 10.1007/s10072-021-05467-w

Abstract

Background: The coronavirus disease 2019 (COVID-19) global pandemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), began in late 2019. Researchers around the world are aggressively working to develop a vaccine. One of the vaccines approved against COVID-19 is Oxford-AstraZeneca chimpanzee adenovirus vectored vaccine ChAdOx1 nCoV-19.

Case report: We described a patient who developed four limb distal paraesthesia, postural instability, and facial diplegia, ten days after vaccination with ChAdOx1 nCoV-19 (ABW1277). The electrophysiological findings were compatible with acute demyelinating motor polyneuropathy (Guillain-Barrè syndrome).

Discussion: We therefore want to describe a temporal correlation between administration of ChAdOx1 nCoV-19 (ABW1277) vaccine and GBS without evidence of other predisposing infectious or autoimmune factors. This paper aims to highlight the importance of pharmacovigilance and subsequent reports will be needed to evaluate the possible correlation between these two events.

Case Reports: Indian J Ophthalmol. 2022 May;70(5):1817-1818.
doi: 10.4103/ijo.IJO_66_22.

A case of acute endothelial corneal transplant rejection following immunization with ChAdOx1 nCoV-19 coronavirus vaccine

Harshita Nahata, Harsha Nagaraja, Rohit Shetty

PMID: 35502082 PMCID: PMC9332947 DOI: 10.4103/ijo.IJO_66_22

Abstract

A 28-year-old female who underwent an uneventful femtosecond laser enabled keratoplasty (FLEK) in her left eye presented with pain, redness, and blurring of vision in the operated eye two weeks after getting immunized with COVID-19 vector vaccine (ChAdOx1 nCoV19 Vaccine Recombinant COVISHIELD, AstraZeneca). Slit-lamp examination showed donor stromal edema with Descemet's membrane folds and Khodadoust line (KP's on endothelium) with anterior chamber cells and flare. The patient was diagnosed with acute corneal graft rejection and advised hourly topical steroids with cycloplegics and oral steroids. The patient responded to treatment and there was progressive reversal of graft rejection with the patient achieving best spectacle-corrected visual acuity (BSCVA) of 20/30 after five weeks of treatment. Our case highlights possible immune corneal graft rejection after COVID19 vaccination and the need to step up topical steroids before vaccination.

Case Reports: Int J Nephrol Renovasc Dis. 2021 Dec 3:14:421-426.
doi: 10.2147/IJNRD.S345898. eCollection 2021.

A Case of Acute Interstitial Nephritis After Two Doses of the BNT162b2 SARS-CoV-2 Vaccine

Filipe S Mira, Jóni Costa Carvalho, Patrícia Amaral de Almeida, Ana Carolina Pimenta, Iolanda Alen Coutinho, Carolina Figueiredo, Luís Rodrigues, Vítor Sousa, Emanuel Ferreira Helena Pinto, Luís Escada, Ana Galvão, Rui Alves

PMID: 34887676 PMCID: PMC8650829 DOI: 10.2147/IJNRD.S345898

Abstract

Background: The development of vaccines to prevent COVID-19 breakouts came with highly positive results but some unexpected side effects. Rare side effects have been seen with the BNT162b2 SARS-CoV 2 vaccine.

Case presentation: We present the case of a 45-year-old female patient who developed an acute kidney injury needing urgent hemodialysis one week after the second administration of the BNT162b2 SARS-CoV 2 vaccine. She developed a macular rash on her lower limbs and palms as well. A kidney biopsy was performed 10 days after vaccine inoculation, diagnosing acute interstitial nephritis and acute tubular necrosis with cellular casts. The patient was treated with three corticosteroid pulses followed by daily prednisolone. We witnessed clinical improvement 4 days after the initial corticosteroid treatment with progressive recovery of kidney function and hemodialysis withdrawal. After 2 weeks, the patient had recovered her kidney function. Immunophenotyping was performed, diagnosing a hypersensitivity to the vaccine and the polyethylene glycol excipient.

Conclusion: Patients may develop acute reactions to vaccines. In this case, symptoms seem to correlate significantly with its inoculation and, although this case had a favourable outcome, these side effects must be made aware for clinicians and patients.

Case Reports: Front Allergy. 2021 Oct 1:2:733466. doi: 10.3389/falgy.2021.733466. eCollection 2021.

A Case of Acute Pericarditis After COVID-19 Vaccination

Andrea Sonaglioni, Adriana Albini, Douglas M Noonan, Antonio Brucato, Michele Lombardo, Paola Santalucia

PMID: 35387019 PMCID: PMC8974729 DOI: 10.3389/falgy.2021.733466

Abstract

A two-dose regimen of Pfizer-BioNTech COVID-19 vaccination confers 95% protection against COronaVIrus Disease 19 (COVID-19) and the safety profile is adequate. To the submission date, there were no reports in literature of acute pericarditis after BNT162b2 vaccination. However, pericarditis has been reported as a rare event associated with COVID-19 infection, which could be due to the pro-inflammatory effects of the spike protein. Recent evidence of post-vaccine myocarditis has been published. Herein we describe the case of a middle-aged healthy women who developed symptoms and signs of acute pericarditis 7-10 days after the second dose of Pfizer-BioNTech COVID-19 vaccination. Although a direct effect cannot be stated, it is important to report a potential adverse vaccine reaction effect that could be associated with the expression of SARS-CoV-2 spike protein induced from the mRNA of the vaccine.

Case Reports: Vaccines (Basel). 2021 Aug 14;9(8):903. doi: 10.3390/vaccines9080903.

A Case of Acute Pulmonary Embolus after mRNA SARS-CoV-2 Immunization

Nathaniel E Wiest, Gretchen S Johns, Eric Edwards

PMID: 34452028 PMCID: PMC8402540 DOI: 10.3390/vaccines9080903

Abstract

Vaccination against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative agent of coronavirus disease 2019 (COVID-19), is a critical strategy to overcome the COVID-19 pandemic. Multiple SARS-CoV-2 vaccines have been developed in a rapid timeframe to combat the pandemic. While generally safe and effective, rare cases of venous thromboembolism (VTE) have been reported after two adenovirus-based vaccines, the AstraZeneca ChAdOx1 nCoV-19 vaccine and the Janssen Ad.26.COV2.S vaccine, as well as after the Pfizer-BioNTech BNT162b2 mRNA vaccine. Here, we present the case of a patient who developed acute pulmonary emboli (PE) shortly after his second dose of the Moderna mRNA-1273 SARS-CoV-2 vaccine. We report the results of an extensive thrombophilia workup that was normal except for the identification of positive lupus anticoagulant (LA) signals. It is our goal to contribute to the body of knowledge regarding SARS-CoV-2 vaccines and encourage vaccine adverse event reporting so that clinicians can have a full appreciation and awareness of the possible adverse events related to these critical vaccines.

Case Reports: Ocul Immunol Inflamm. 2023 Jan;31(1):233-235.
doi: 10.1080/09273948.2021.2001541. Epub 2021 Nov 22.

A Case of Acute Retinal Necrosis Associated with Reactivation of Varicella Zoster Virus after COVID-19 Vaccination

Seima Iwai, Kei Takayama, Daisuke Sora, Masaru Takeuchi

PMID: 34802376 DOI: 10.1080/09273948.2021.2001541

Abstract

Purpose: To report a case of acute retinal necrosis (ARN) after receiving COVID-19 vaccination.

Methods: A case report.

Results: A 78-year-old man complained of blurred vision and floaters in the right eye 2 days after receiving BNT162b2 mRNA-based COVID-19 vaccine and was referred to our hospital with worsening visual acuity after 7 days. He had no systemic symptoms and no history of systemic diseases. Ophthalmic examination revealed white-yellowish placoid lesions spreading to the entire circumference of the retina, and temporal and upper lesions extending to the posterior pole, although anterior inflammation and vitreous opacity were mild. Diagnostic and therapeutic vitrectomy was performed, and VZV-DNA was detected by comprehensive PCR using a vitreous fluid sample. The ocular inflammation subsided by systemic administration of antivirals and corticosteroids. However, total retinal detachment requiring repeat vitrectomy using silicone oil occurred after the second vaccination.

Conclusion: ARN associated with VZV reactivation may develop after SARS-CoV-2 mRNA vaccination.

Case Reports: Ocul Immunol Inflamm. 2023 Jan;31(1):233-235.
doi: 10.1080/09273948.2021.2001541. Epub 2021 Nov 22.

A case of acute tubulointerstitial nephritis following administration of the Oxford-AstraZeneca COVID-19 vaccine: a case report

Samuel B. M. Williams, Stephen D. J. Holwill, Rhian L. Clissold & Coralie Bingham

BMC Nephrology volume 24, Article number: 52 (2023) Cite this article 2229 Accesses 108 Altmetric Metricsdetails

Abstract

Background: More than 4 billion doses of the Coronavirus disease (COVID-19) vaccine have been administered worldwide but the relationship between the different vaccines and the development of renal disease is unknown. We present a case of tubulointerstitial nephritis following administration of the Oxford-AstraZeneca COVID-19 vaccine.

Case presentation: A previously fit and well 51-year-old female presented on 27th May 2021 with a one-month history of weight loss, fatigue, nausea, and a metallic taste. She had an acute kidney injury with a creatinine of 484 umol/L. She was on no regular medications and denied taking any over-the-counter or alternative medicines. She had received her first dose of the Oxford-AstraZeneca vaccine on 23rd March 2021 and her second dose on 20th May 2021. A renal biopsy was performed the following day. The 19 glomeruli appeared

normal to light microscopy but the tubulointerstitial compartment contained a dense inflammatory infiltrate including many eosinophils. There was widespread acute tubular injury with tubulitis, but no established or longstanding atrophy. A diagnosis was made of an acute tubulointerstitial nephritis. She was commenced on oral prednisolone and her renal function improved. She did not require renal replacement therapy at any time.

Conclusions: To our knowledge, this was the first described case of acute tubulointerstitial nephritis following administration of the Oxford-AstraZeneca COVID-19 vaccine, although a number of cases have emerged more recently. In our case the patient was very fit and well, had no previous past medical history and had not taken any recent prescribed, over-the-counter or alternative medications. The absence of these provoking factors in our case makes the vaccine the most likely explanation for the development of tubulointerstitial nephritis although the pathophysiology behind this remains unknown. Given the unprecedented number of vaccinations being delivered around the world, nephrologists should be aware of this possible link although more research into the topic is required.

Case Reports: Cureus. 2022 Jan 13;14(1):e21207. doi: 10.7759/cureus.21207. eCollection 2022 Jan.

A Case of Acute Viral Pericarditis Complicated With Pericardial Effusion Induced by Third Dose of COVID Vaccination

Hany A Zaki, Adel Zahran, Mohammed Abdelrahim, Wael Abdelrehem Elnabawy, Yasser Kaber

PMID: 35165640 PMCID: PMC8840804 DOI: 10.7759/cureus.21207

Abstract

COVID-19 vaccines were safe and efficacious in clinical trials. A two-dose regimen of the Pfizer-BioNTech COVID-19 vaccine confers no less than 95% protection against COVID-19 with an adequate safety profile. To date, no reports have been made in the literature regarding the onset of acute viral pericarditis after vaccination with the Pfizer BNT162b2 vaccine. But on the other hand, pericarditis is reported to occur in rare instances of COVID-19 infection, and this may be attributed to the pro-inflammatory effects of the spike protein. In this article, we describe the case of an elderly male patient with a known case of hypothyroidism who presented to our emergency department with fever, chills, and dry cough for ten days after the third dose of the Pfizer-BioNTech COVID-19 vaccine. Although we cannot mention a direct effect, it is essential to note a potential adverse reaction to vaccine administration following the expression of SARS-CoV-2 spike protein-induced from the vaccine's mRNA.

Case Reports: Infect Dis (Lond). 2022 Sep;54(9):692-697.

doi: 10.1080/23744235.2022.2072521. Epub 2022 May 12.

A case of adenoviral covid-19 vector vaccine possibly linked to severe but reversible interstitial lung injury post-vaccination

George D Liatsos, Andreas Mavroudis, Panayiotis Iliakis, Maria Karmpalioti, Emmanouil Koullias, Dimitrios Vassilopoulos

PMID: 35546097 DOI: 10.1080/23744235.2022.2072521

Abstract

Background: Several safe and effective vaccines against nCoV-19 have been developed to contain the pandemic with very few severe adverse-reactions reported. Vaccine-induced interstitial lung disease (ILD) is a very rare and difficult to recognise and diagnose adverse-reaction and is mostly associated with Influenza vaccines.

Methods: We report a 55-yr old male who presented with severe respiratory failure that required for several days oxygen supplementation with high flow nasal cannula, and myocardial infarction. Symptoms onset was eighteen days after the first shot of adenoviral AZD1222 vector vaccine. Possible SARS-CoV-2 natural infection post-vaccination was excluded with rigorous laboratory work-up including multiple nasopharengeal rt-qPCR tests for SARS-CoV-2 detection and close monitoring of his serum SARS-CoV-2 antibodies. Other potential infectious agents and alternate diagnoses were thoroughly investigated.

Results: Patient responded impressively to high dose steroids. A repeat chest CT nine days after the first one showed a remarkable resolution of the bilateral ground glass opacities. Except for his cardiology medication, no supplemental oxygen neither steroids were prescribed

upon his discharge. On one month follow-up, no residual pulmonary dysfunction was noticed with patient preserving a SatO2 of 97-98% on ambient air.

Conclusion: Vaccine-induced ILD might constitute a rare nCoV-19 post-vaccination adverse-event. According to current restricted data, when post-vaccination ILD is early suspected and recognised, then prompt implementation of steroid treatment reverses significantly the lung lesions without progression to fibrosis.

Case Reports: J Community Hosp Intern Med Perspect. 2022 Jul 4;12(4):7-13. doi: 10.55729/2000-9666.1087. eCollection 2022.

A Case of Adult Multisystem Inflammatory Syndrome Following COVID-19 Vaccine

Meghan Brown, Nika Z Garbajs, Simon Zec, Hisham Mushtaq, Anwar Khedr, Abbas B Jama, Ibtisam Rauf, Mikael Mir, Aishwarya R Korsapati, Shikha Jain, Thoyaja Koritala, Ramesh Adhikari, Amos Lal, Ognjen Gajic, Juan Pablo Domecq, Sarah Goksoy, Brian Bartlett, Amit Sharma, Nitesh Kumar Jain, Syed Anjum Khan

PMID: 36262897 PMCID: PMC9533789 DOI: 10.55729/2000-9666.1087

Abstract

Multisystem inflammatory syndrome is a life-threatening condition associated with elevated inflammatory markers and multiple organ injury. A diagnosis of exclusion, it has been reported after severe acute respiratory syndrome coronavirus 2 infection (SARS-CoV-2) in children and adults; recently it has been described in some post-COVID-19 vaccinated individuals. The prognosis with supportive care and immunomodulatory therapy is good, although some individuals may require treatment in the intensive care unit (ICU). Here we report a case of a 58-year-old man who developed multi-organ failure after receiving the second dose of the Moderna mRNA-1273 COVID-19 vaccine. He required critical organ support in the ICU. An extensive workup was done to rule out alternative infectious and inflammatory processes. Following a period of gradual in-hospital convalescence, our patient made a full recovery. To our knowledge, this is the first comprehensively described case of multisystem inflammatory syndrome associated with Moderna mRNA-1273 COVID-19 vaccine in an adult over 50 years of age.

Case Reports: J Cardiol Cases. 2022 Sep;26(3):225-228.
doi: 10.1016/j.jccase.2022.04.020. Epub 2022 May 17.

A case of an elderly female who developed subacute pleuropericarditis following BNT162b2 mRNA COVID-19 vaccination

Tatsuya Mizoguchi, Masashi Yoko, Yasuhiro Shintani, Junki Yamamoto 1, Kento Mori, Hiroshi Fujita, Tsuyoshi Ito, Tomonori Sugiura, Yoshihiro Seo

PMID: 35600413 PMCID: PMC9110567 DOI: 10.1016/j.jccase.2022.04.020

Abstract

Despite the established safety of BNT162b2 coronavirus disease 2019 (COVID-19) vaccine, some rare but serious complications have been previously reported. Here, we report a rare case of an elderly female who developed subacute pleuropericarditis after the vaccination. An 88-year-old female experienced weight gain and dyspnea three days after the second dose of BNT162b2 vaccination, and one month later, presented to our hospital due to the exacerbation of the symptoms. Computed tomography showed remarkable pericardial and bilateral pleural effusions, and transthoracic echocardiogram visualized collapse signs of right and left atrium which indicates pre-tamponade. Percutaneous drainages of pericardial and pleural effusions stabilized her vital condition and revealed that all of them were exudative, indicating the presence of pleuropericarditis. Finally, we diagnosed this case as COVID-19 vaccine-associated pleuropericarditis because there were no signs of bacterial/viral infection or any other relevant causes except for the vaccination. When the pericardial and pleural effusions are concurrently found after COVID-19 vaccination, vaccine-associated pleuropericarditis should be considered as a differential diagnosis. The

aggressive drainage of pericardial and pleural effusions could be helpful not only for diagnosis but also for treatment in the clinical management of COVID-19 vaccine-associated pleuropericarditis.

Learning objective: Although the safety and efficacy of BNT162b2 have been widely accepted, it is clinically important to know the potential risk of side effects. When the pericardial and pleural effusions are concurrently found after the vaccination, coronavirus disease 2019 vaccine-associated pleuropericarditis should be considered as a differential diagnosis.

Case Reports: J Cardiol Cases. 2022 Sep;26(3):225-228.
doi: 10.1016/j.jccase.2022.04.020. Epub 2022 May 17.

A case of an elderly female who developed subacute pleuropericarditis following BNT162b2 mRNA COVID-19 vaccination

Kei Nagai, Mamiko Iwase, Atsushi Ueda

PMID: 34524643 PMCID: PMC8441946 DOI: 10.1007/s13730-021-00646-2

Abstract

A case of newly developed anti-glomerular basement membrane (GBM) glomerulonephritis (GN) following centipede bites and COVID-19 vaccination is presented. A 70-year-old woman presented for investigation of mild fever, generalized fatigue, and macroscopic hematuria with no past history of renal disease. One year earlier, she had been bitten by a centipede. Based on the governmental policy, she was given the first COVID-19 vaccination, and the second injection was planned 3 weeks later. Accidentally, she was again bitten by a centipede, and the injured site had swollen severely. Based on a physician's judgment, the interval between vaccinations was extended to 8 weeks. One week after the second vaccination, macroscopic hematuria occurred suddenly, coincident with mild fever. Her serum anti-GBM titer was above the upper limit. There was no pulmonary involvement. Renal pathology showed anti-GBM GN, and she was treated with corticosteroid pulse therapy followed by sequential plasmapheresis. She had advanced renal dysfunction, but was independent of dialysis therapy during the one month of the remission induction therapy phase, and she is being treated with immunosuppressant therapy. Both vaccination and animal bites skew towards Th1 immunity, a key mechanism involved

in the development of necrotizing GN evoked by anti-GBM antibody. Though there is no direct evidence for causality linking centipede bites, vaccination, and anti-GBM GN, the risk of anti-GBM GN appears to be increased by excessively induced Th1 immunity.

Case Reports: Respirol Case Rep. 2022 Nov 2;10(12):e01064.
doi: 10.1002/rcr2.1064. eCollection 2022 Dec.

A case of anti-melanoma differentiation-associated gene 5 antibody-positive dermatomyositis-associated rapidly progressive interstitial lung diseases developed after administration of COVID-19 vaccine and subsequent pneumococcal vaccine

Saeko Takahashi, Ai Kato, Kanako Hashimoto, Tomohiro Takehara, Kota Ishioka, Satoshi Takanashi

PMID: 36348741 PMCID: PMC9630759 DOI: 10.1002/rcr2.1064

Abstract

Five cases of anti-melanoma differentiation-associated gene 5 antibody-positive dermatomyositis-associated rapidly progressive interstitial lung diseases (anti-MDA5-positive DM-RPILD) following COVID-19 vaccination have been reported previously. We present the first case of the disease that developed following the sequence of COVID-19 infection, COVID-19 vaccination, and 23-valent pneumococcal polysaccharide vaccine (PPSV23) administration. A 75-year-old-Japanese man received the third dose of Pfizer COVID-19 vaccine 4 weeks after he had a mild COVID-19 infection. Eleven weeks after vaccination, he received PPSV23 for the first time. He developed fever, malaise, and anorexia the day after the PPSV23, rash a week later, and shortness of breath 2 weeks later. He was then admitted to a local hospital and

treated with antibiotics, but his condition worsened. He was transferred to our hospital 4 weeks after the PPSV23 and was diagnosed with anti-MDA5-positive DM-RPILD. Despite intensive treatment, the patient died on the 10th hospital day.

Case Reports: Cureus. 2022 Mar 14;14(3):e23162. doi: 10.7759/cureus.23162. eCollection 2022 Mar.

A Case of Antineutrophil Cytoplasmic Antibodies (ANCA)-Associated Vasculitis Post COVID-19 Vaccination

Zaki Al-Yafeai, Benjamin Joesph M Horn, William Terraccaine, Alvin Jose, Prathik Krishnan

PMID: 35444915 PMCID: PMC9010006 DOI: 10.7759/cureus.23162

Abstract

In this report, we examine the case of a patient who developed antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis after receiving the Pfizer-BioNTech coronavirus disease 2019 (COVID-19) vaccine. This is a case of a 62-year-old female who received the first dose of COVID-19 vaccine in July 2021 before presenting a few weeks later with migrating polyarthralgia and hemoptysis. Autoimmune workup was positive for ANCA against proteinase 3 (PR3).

Case Reports: Vaccines (Basel) . 2022 Sep 20;10(10):1574.

doi: 10.3390/vaccines10101574.

A Case of Atypical Unilateral Optic Neuritis Following BNT162b2 mRNA COVID-19 Vaccination

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PMID: 36298437 PMCID: PMC9610132 DOI: 10.3390/vaccines10101574

Abstract

Background: We report a case of atypical unilateral optic neuritis after receiving the BNT162b2 mRNA-based COVID-19 vaccine.

Case presentation: An 86-year-old man complained of blurred vision and decreased visual acuity in his right eye 8 days after receiving the second BNT162b2 mRNA-based COVID-19 vaccine and was referred to our hospital. He also had pain with eye movement. Best corrected visual acuity (BCVA) in the right eye was 20/200 and critical flicker frequency dropped to 16 Hz. Relative afferent pupillary defect was positive and central scotomas were observed on visual field analysis. Fundus examination and SD-OCT revealed optic disc swelling and apparent thickening of the retinal nerve fiber layer around the optic disc in the right eye. Although either an increase in CRP or ESR on laboratory tests, demyelinating lesion on MRI, or positive of anti-MOG antibodies or anti-AQP4 antibodies were not observed, fluorescein angiography presented only hyperfluorescence of the optic disc in the right eye, but there were no findings such as papillary deficiency and choroidal delay that would suggest ischemic optic neuropathy. We diagnosed atypical optic neuritis developed after the SARS-CoV-2 mRNA-based vaccination and initiated oral corticosteroid therapy. One

month later, the optic disc swelling disappeared and BCVA improved to 20/100; however, the central scotoma remained and no further improvement in visual function OD was obtained.

Conclusions: An atypical acute idiopathic optic neuritis can occur after receiving the second vaccination with BNT162b2, which may present a limited response to corticosteroid therapy.

Case Reports: Case Rep Hematol. 2022 Jan 29:2022:2036460.
doi: 10.1155/2022/2036460. eCollection 2022.

A Case of Autoimmune Hemolytic Anemia after the First Dose of COVID-19 mRNA-1273 Vaccine with Undetected Pernicious Anemia

Fnu Jaydev, Vinod Kumar, Jaikumar Khatri, Shobha Shahani, Sead Beganovic

PMID: 35103106 PMCID: PMC8799952 DOI: 10.1155/2022/2036460

Abstract

By this time, multiple vaccines have been approved to limit the spread of SARS-CoV-2 worldwide. These include new-generation vaccines that contain mRNA of the target organism. Some common side effects were identified and reported during phase 3 clinical trials of vaccination, but more rare adverse events were reported in the literature. One such concern is autoimmune conditions that SARS-CoV-2 viral antigens could have possibly incited. We are presenting here a case of a young female with no known autoimmune diseases, diagnosed with autoimmune hemolytic anemia about a week after receiving her first dose of the COVID-19 mRNA vaccine. We discuss the possible culprit for precipitation of autoimmune hemolytic anemia after the SARS-CoV-2 mRNA vaccine, which encodes virus spike protein. This case highlights the importance of being vigilant for identifying rare adverse events that could appear during mass vaccination.

Case Reports: Case Rep Ophthalmol. 2023 Jul 10;14(1):295-300.
doi: 10.1159/000530794. eCollection 2023 Jan-Dec.

A Case of Bilateral Frosted Branch Angiitis after mRNA COVID-19 Vaccination

Mai Kitaoka, Takako Ohnishi, Satoshi Sugaya, Harumasa Yokota, Taiji Nagaoka, Satoru Yamagami

PMID: 37465117 PMCID: PMC10350867 DOI: 10.1159/000530794

Abstract

We report a case of bilateral frosted branch angiitis (FBA) following mRNA-1273 COVID-19 vaccination. A 79-year-old male was referred to our hospital with a sudden onset of blurred vision in the right eye, which occurred during his return home after receiving the third dose of a messenger RNA (mRNA) COVID-19 vaccine. Fundoscopy revealed severe retinal vasculitis with sheathing of the artery and vein in the right eye more so than in the left eye, suggestive of bilateral FBA. Optical coherence tomography showed significant macular edema and serous retinal detachment in the right eye. Polymerase chain reaction assay detected Epstein-Barr virus (EBV) in the aqueous humor, and antibody against the EBV viral capsid antigen was positive for IgM. The next day, best-corrected visual acuity (BCVA) worsened to 0.08 due to macular edema in the left eye. After 2 courses of pulse steroid therapy and intravenous infusion of acyclovir, macular edema had disappeared and sheathing of retinal vessels was improving. At 5 months after the mRNA COVID-19 vaccination, BCVA was maintained 0.15 in the right eye and 0.7 in the left eye. Severe uveitis, such as FBA, can occur after mRNA COVID-19 vaccination.

Case Reports: Clin Case Rep. 2022 Sep 5;10(9):e6161.

doi: 10.1002/ccr3.6161. eCollection 2022 Sep.

A case of BNT162b2 COVID-19 vaccine-associated fulminant myocarditis in a very elderly woman

Kaishi Otsuka, Takashi Matsuo, Takashi Ishimatsu, Atsuki Fukae, Takuro Hamamoto, Koji Oku, Masahiro Ito

PMID: 36093466 PMCID: PMC9445258 DOI: 10.1002/ccr3.6161

Abstract

Coronavirus disease 2019 (COVID-19) vaccination is reportedly safe and effective. The histologic features of post-COVID-19 vaccination myocarditis are unknown. We present a case of a 77-year-old Japanese woman diagnosed with eosinophilic myocarditis using endomyocardial biopsy, 7 days after the second dose of BNT162b2 COVID-19 vaccine. Steroid pulse therapy was effective.

Case Reports: Cureus. 2021 May 16;13(5):e15050. doi: 10.7759/cureus.15050.

A Case of Cervical Lymphadenopathy After Vaccination Against COVID-19

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PMID: 34141500 PMCID: PMC8204135 DOI: 10.7759/cureus.15050

Abstract

The coronavirus disease 2019 (COVID-19) pandemic has caused a major global healthcare crisis, and the fields of science and medicine have been engaged in a massive effort to control and prevent the resultant deaths and morbidity. Researchers and pharmaceutical companies have developed in record time vaccines against COVID-19 that are intended to be safe and effective; however, the short validation time has been a challenge for doctors and epidemiologists, especially in light of the increase in reports emerging from various parts of the world about the adverse effects of the new vaccines. Portugal's national regulatory authority, the National Authority of Medicines and Health Products (INFARMED), has recently granted approval for Pfizer-BioNTech (Pfizer Inc., New York, NY; BioNTech SE, Mainz, Germany) and Moderna (Moderna, Inc, Cambridge, MA) COVID-19 vaccines, and they are being rolled out to be administered among the general population. In light of this, it is important for breast surgeons, family doctors, hematologists, and radiologists to consider the effects of recent COVID-19 vaccination history as a possible cause in the differential diagnosis for patients with unilateral cervical adenopathy. The objective of this report is to present a case that involves an adverse reaction involving acute-onset cervical lymphadenopathy in a female patient

that coincided with her vaccination against COVID-19, even though cervical lymphadenopathy had not been previously reported as a potential side effect of the COVID-19 vaccination. We discuss the case of a Portuguese physician with a family history of breast cancer, who developed right cervical lymphadenopathy after receiving the first dose of the COVID-19 vaccine. Lymph node growth and ultrasound changes observed in the patient over the weeks, and a lack of information on the COVID-19 vaccine's adverse effects, prompted an in-depth study to understand its etiology.

Case Reports: Cureus. 2022 Jun 18;14(6):e26070. doi: 10.7759/cureus.26070. eCollection 2022 Jun.

A Case of Chronic Myelomonocytic Leukemia Unmasked After Receiving J&J COVID-19 Vaccine

Sindhusha Veeraballi, Aditya Patel, Gowthami Are, Amr Ramahi, Sahithi Chittamuri, Hamid Shaaban

PMID: 35865440 PMCID: PMC9292133 DOI: 10.7759/cureus.26070

Abstract

Chronic myelomonocytic leukemia (CMML) is a clonal hematopoietic stem cell disease that comes under the overlap syndrome (myelodysplastic and myeloproliferative disorders). CMML is characterized by peripheral blood monocytosis and bone marrow dysplasia. The pathogenesis of CMML is poorly understood. Although cytogenetic and molecular abnormalities are common, they are not diagnostic. Herein, we present a rare case of CMML after receiving the J&J COVID-19 vaccine with the rare association of limited scleroderma. Based on the Surveillance, Epidemiology, and End Result (SEER) cancer statistics review 2014-2018, the five-year age-adjusted incidence rate of CMML in both sexes is 0.5/100,000, with greater incidence in males (0.7/100,000) compared to females (0.3/100,000). We emphasize the fact that, based on the previous studies reported, the association of scleroderma with CMML is very rare. Our patient had concomitant CMML and scleroderma, which were unmasked after the patient received the COVID-19 vaccine. Our case suggests the possibility of developing CMML after receiving the J&J COVID vaccine. Immunization has always been a life-saving intervention in history. As the world is foreseeing getting the COVID-19 vaccine, it is essential to report all the possible adverse events for safety monitoring. Physicians should be aware of this unusual complication of the vaccine, and more cases are needed to confirm the association between them.

Case Reports: Turk J Ophthalmol. 2023 Jun 21;53(3):186-191.

doi: 10.4274/tjo.galenos.2023.65118.

A Case of Concurrent Acute Macular Neuroretinopathy and Paracentral Acute Middle Maculopathy Following Pfizer-BioNTech COVID-19 Vaccination

Jale Menteş, Serhad Nalçacı, Cumali Değirmenci

PMID: 37345327 PMCID: PMC10286837 DOI: 10.4274/tjo.galenos.2023.65118

Abstract

We present a 65-year-old woman who developed sudden and severe vision loss in her left eye one day after the administration of the second dose of COVID vaccine. The best corrected visual acuity in this eye was 1/10. Diffuse paracentral acute middle maculopathy was detected on spectral domain optical coherence tomography (OCT). OCT angiography images revealed concurrent vascular flow defects consistent with acute macular neuroretinopathy in the deep retinal capillary plexus and choriocapillaris layers. At the end of the six-month follow-up, there was no improvement in visual acuity, and atrophy and thinning developed in all layers of the retina.

Case Reports: J Egypt Natl Canc Inst. 2022 Aug 15;34(1):34.

doi: 10.1186/s43046-022-00134-3.

A case of COVID-19 vaccination during radiotherapy for breast cancer

Noriyoshi Takahashi, Kazuya Takeda, Yu Suzuki, Keita Kishida, Satoshi Teramura, Keiichi Jingu

PMID: 35965287 PMCID: PMC9376123 DOI: 10.1186/s43046-022-00134-3

Abstract

Background: The coronavirus disease 19 (COVID-19) vaccination has been progressing. The safety of vaccination during radiotherapy is not clear.

Case presentation: We experienced a patient who received a COVID-19 vaccine during radiotherapy. A 60-year-old woman with breast cancer underwent postoperative radiotherapy. She received two vaccine doses and she suffered from severe vertigo. Her radiotherapy was suspended for several days and the radiotherapy schedule needed to be changed.

Conclusions: The association between vertigo and vaccination during radiotherapy is not clear. However, if the general condition of patients worsens, suspension of treatment might be necessary. Therefore, attention should be given to COVID-19 vaccination during radiotherapy.

Case Reports: Br J Dermatol. 2022 Jan;186(1):e1. doi: 10.1111/bjd.20744. Epub 2021 Sep 28.

A case of COVID-19 vaccination-associated forme fruste purpura fulminans

J Griss 1, S Eichinger, S Winkler, W Weninger 1, P Petzelbauer

PMID: 34585371 PMCID: PMC8652590 DOI: 10.1111/bjd.20744

Abstract

We report the case of a female, 77 year old patient with multi-localized skin infarctions following vaccination with mRNA-1273 (Moderna). This phenomenon is to our knowledge otherwise only seen in infection-associated purpura fulminans - which was thoroughly ruled out in our patient. This report demonstrates that we need to be vigilant of a wider array of vascular phenomena related to Covid vaccinations.

Case Reports: Cureus. 2021 Jun 10;13(6):e15581. doi: 10.7759/cureus.15581. eCollection 2021 Jun.

A Case of COVID-19 Vaccine Causing a Myasthenia Gravis Crisis

Ariana R Tagliaferri, Spandana Narvaneni, Moh'd Hazem Azzam, William Grist

PMID: 34277203 PMCID: PMC8272681 DOI: 10.7759/cureus.15581

Abstract

Myasthenia gravis is a rare disease of the neuromuscular junction subsequently affecting the bulbar, respiratory, and extremity skeletal muscles. It is an autoimmune disease in which antibodies target the acetylcholine receptor (AChR), preventing transmission of the excitatory cascade during muscle contraction. Myasthenia gravis is typically well controlled using acetylcholinesterase inhibitors, steroids, immunosuppressant agents, and/or thymectomies. However, exacerbations can be induced by infection or medications. This is particularly important during the coronavirus disease 2019 (COVID-19) pandemic in which myasthenia gravis patients have been known to have poorer outcomes. We report a very rare presentation of a myasthenia gravis crisis induced by the Moderna COVID-19 vaccine.

Case Reports: J Community Hosp Intern Med Perspect. 2021 Nov 15;11(6):776-778. doi: 10.1080/20009666.2021.1980966. eCollection 2021.

A Case of COVID-19 Vaccine-Induced Thrombotic Thrombocytopenia

Ariana R Tagliaferri, Spandana Narvaneni, Moh'd Hazem Azzam, William Grist

PMID: 34804389 PMCID: PMC8604444 DOI: 0.1080/20009666.2021.1980966

Abstract

SARS-CoV-2, which originated in China in late 2019, has spread rapidly resulting in a global pandemic. Multiple vaccines have been developed to help prevent COVID-19 infection. Similar to other vaccines, common side effects including fever, fatigue, myalgias have occurred; however, episodes of more serious side effects have been noted. One such potentially serious sequalae is vaccine-induced thrombocytopenia (VITT), an autoimmune-mediated phenomenon hypothesized to occur due to molecular mimicry and the production of platelet PF4 antibodies, ultimately leading to thrombocytopenia and easy bruising. In this report, we present the case of a 34-year-old, otherwise, healthy female who presented with easy bruising and thrombocytopenia following completion of the two-dose Moderna COVID-19 vaccine, suspicious for a diagnosis of VITT. The patient was managed conservatively with steroids. Steroids and intravenous immune globulin therapy have been reported in the literature. This report highlights that VITT should be considered in the differential diagnosis for patient presenting with increased bruising in the setting of recent COVID-19 vaccine administration, and furthermore highlights the diagnostic workup and management options for such patients.

Case Reports: Cureus. 2022 Jul 24;14(7):e27204. doi: 10.7759/cureus.27204. eCollection 2022 Jul.

A Case of COVID-19 Vaccine-Induced Thrombotic Thrombocytopenia

Hailey Harrison, Hadi Rezaei, Nimit Dalal

PMID: 36039236 PMCID: PMC9395908 DOI: 10.7759/cureus.27204

Abstract

This report discusses a case of a 37-year-old female who developed vaccine-induced thrombotic thrombocytopenia (VITT) after receiving the Johnson and Johnson COVID-19 vaccination. The patient first presented to the ED with complaints of a worsening headache. Labs were significant for thrombocytopenia with a platelet count of 22,000, and the patient was admitted to the inpatient unit for monitoring. The day after admission, the patient was found to have a right common femoral artery embolus, left distal popliteal trifurcation embolism, a small pulmonary embolism in the right lower lobe, and a mural thrombus of the infrarenal abdominal aorta. Following these findings, the patient underwent emergent thrombectomy of the common and superficial femoral arteries. Over the hospital course of six days, the patient received steroids and IV immunoglobulin (IVIG), which led to the resolution of the thrombocytopenia. The patient was given argatroban followed by apixaban for anticoagulation. She was instructed to follow up with hematology within one to two weeks post-discharge for monitoring of anticoagulation and thrombus surveillance. This case report outlines the clinical course, diagnosis, and treatment of a case of VITT, which will assist physicians in early recognition and adequate treatment of this condition as the COVID-19 pandemic continues.

Case Reports: Curr Drug Saf. 2023 Apr 27;18(4):584-588. doi: 10.2174/1574886317666220613163327.

A Case of de novo Annular-plaque Type Psoriasis Following Oxford- AstraZeneca COVID-19 Vaccination

Namrata Chhabra, Anju George

PMID: 35702789 DOI: 10.2174/1574886317666220613163327

Abstract

Background: There have been increasing reported cases of new-onset or aggravation of pre-existing dermatoses after the implementation of COVID-19 vaccination.

Case presentation: An elderly male was presented with multiple annular scaly plaques all over the body two weeks following administration of the first dose of Oxford-AstraZeneca COVID-19 vaccine. The lesions further aggravated after taking the second dose of the vaccine. The clinical and histopathology features were suggestive of annular plaque psoriasis.

Conclusion: We report this first case of de novo plaque psoriasis following the Oxford- AstraZeneca COVID-19 vaccine, and it signifies a potential side effect of autoimmune reactivation after COVID vaccination.

Case Reports: J Cosmet Laser Ther. 2021 May 19;23(3-4):52-54.
doi: 10.1080/14764172.2021.1967997. Epub 2021 Aug 18.

A case of delayed inflammatory filler reaction following vaccination with succesful response to colchicine

Sukran Sarigul Guduk

PMID: 34407723 DOI: 10.1080/14764172.2021.1967997

Abstract

Delayed inflammatory reactions (DIRs) associated with hyaluronic acid injections are not rare and can be seen in up to 4.25% of patients. Although the exact mechanism is not clear, several triggering factors, including infections, trauma, and dental procedures, were reported in the literature. A 43-year-old female patient treated with HA fillers developed an inflammatory reaction following vaccination in all areas of injection, including temples, lips, and lower eyelids. Systemic steroid and ciprofloxacin were used as a first-line treatment without response. Colchicine 1 mg/day along with hyaluronidase in lower eyelids improved all lesions successfully.

Case Reports: Cureus. 2022 Jan 27;14(1):e21665. doi: 10.7759/cureus.21665

A Case of Diffuse Alveolar Hemorrhage With COVID-19 Vaccination

Alisha Sharma, Binayak Upadhyay, Rabin Banjade, Bidhya Poudel, Pankaj Luitel, Bidhisa Kharel

PMCID: PMC8881991 PMID: 35233333

Abstract

With the growing rates of vaccination against coronavirus disease 2019 (COVID-19) across the globe, rare side effects have been increasingly noticed on a post-marketing basis. Cases of myocarditis and pericarditis have been reported in the literature following COVID messenger RNA (mRNA) vaccination. However, diffuse alveolar hemorrhage (DAH) following vaccination has not been reported. DAH is a life-threatening clinicopathological entity characterized by bleeding into the alveolar space from pulmonary microvasculature. It presents a diagnostic challenge in the setting of acute respiratory failure, requiring prompt suspicion and workup.

We report a case of a 59-year-old male with a recent COVID-19 infection who presented with DAH within eight hours of the first dose of mRNA vaccination (Moderna, Cambridge, MA). Bronchial alveolar lavage was performed, along with imaging of the chest, to confirm the diagnosis. Immunological workup with rheumatoid factor, anti-citrullinated peptide, anti-neutrophil cytoplasmic antibodies (P-ANCA and C-ANCA), anti-glomerular basement antibodies, Anti-double-stranded DNA, C3 and C4 complement levels, and cryoglobulin were all negative. Infectious workup with cultures and PCR from bronchial lavage was also negative. In the absence of any other causes, the etiology

was likely deemed to be vaccine-induced DAH. Herein, we also discuss the possible mechanism of vaccine-related DAH and emphasize the need for further studies on vaccine-related adverse events.

Case Reports: J Infect Chemother. 2022 Jul;28(7):975-977.

doi: 10.1016/j.jiac.2022.02.009. Epub 2022 Feb 17.

A case of encephalitis following COVID-19 vaccine

Yuya Kobayashi, Seishu Karasawa, Nobuhiko Ohashi, Kanji Yamamoto

PMID: 35190257 PMCID: PMC8849833 DOI: 10.1016/j.jiac.2022.02.009

Abstract

We describe the first case of encephalitis following coronavirus disease 2019 (COVID-19) vaccination. Our patient was a 46-year-old Japanese woman who presented with acute onset diplopia. Subsequent magnetic resonance imaging revealed brain stem encephalitis that was rapidly responsive to high dosage steroid therapy and completely improved. Although the occurrence of encephalitis after vaccination could have just been a casual temporal association, her symptoms were temporally correlated with two vaccinations. Our case suggests caution and indicates treatment and prognosis, despite no evidence of a causal relationship. Nonetheless, this report emphasizes the enormous benefits of vaccination, which should not be undermined.

Case Reports: Vaccines (Basel). 2021 Sep 29;9(10):1108.
doi: 10.3390/vaccines9101108.

A Case of Exacerbation of Subclinical Hyperthyroidism after First Administration of BNT162b2 mRNA COVID-19 Vaccine

Kana Yamamoto, Takahisa Mashiba, Keisuke Takano, Toshihiko Suzuki, Masahiro Kami, Morihito Takita, Eiji Kusumi, Yasuhiro Mizuno, Tamae Hamaki

PMID: 34696214 PMCID: PMC8538620 DOI: 10.3390/vaccines9101108

Abstract

COVID-19 vaccines are the most critical measure for controlling the COVID-19 pandemic; however, we have little information on their complications. We experienced a case of a patient who developed hyperthyroidism complicated with atrial fibrillation and heart failure on the sixth day after the first dose of COVID-19 vaccination. This case report shows the importance of considering hyperthyroidism as a possible complication after COVID-19 vaccination.

Case Reports: Leg Med (Tokyo). 2023 Jul:63:102244.

doi: 10.1016/j.legalmed.2023.102244. Epub 2023 Mar 20.

A case of fatal multi-organ inflammation following COVID-19 vaccination

Hideyuki Nushida, Asuka Ito, Hiromitsu Kurata, Hitomi Umemoto, Itsuo Tokunaga, Hirofumi Iseki, Akiyoshi Nishimura

PMID: 36990036 PMCID: PMC10027302 DOI: 10.1016/j.legalmed.2023.102244

Abstract

A 14-year-old Japanese girl died unexpectedly 2 days after receiving the third dose of the BNT1262b2 mRNA COVID-19 vaccine. Autopsy findings showed congestive edema of the lungs, T-cell lymphocytic and macrophage infiltration in the lungs, pericardium, and myocardium of the left atria and left ventricle, liver, kidneys, stomach, duodenum, bladder, and diaphragm. Since there was no preceding infection, allergy, or drug toxicity exposure, the patient was diagnosed with post-vaccination pneumonia, myopericarditis, hepatitis, nephritis, gastroenteritis, cystitis, and myositis. Although neither type of inflammation is fatal by itself, arrhythmia is reported to be the most common cause of death in patients with atrial myopericarditis. In the present case, arrhythmia of atrial origin was assumed as the cause of cardiac failure and death. In sudden post-vaccination deaths, aggressive autopsy systemic search and histological examination involving extensive sectioning of the heart, including the atrium, are indispensable.

Case Reports: Cureus. 2022 Jan 25;14(1):e21608.

doi: 10.7759/cureus.21608. eCollection 2022 Jan.

A Case of Giant Cell Arteritis Presenting After COVID-19 Vaccination: Is It Just a Coincidence?

Christopher S Greb, Zineb Aouhab, Daniel Sisbarro, Elnaz Panah

PMID: 35228965 PMCID: PMC8873313 DOI: 10.7759/cureus.21608

Abstract

Giant cell arteritis (GCA) is a large vessel vasculitis with variable presentations, including fevers, myalgias, headache, and jaw claudication. A particularly concerning symptom is transient vision loss, which may become irreversible without prompt recognition and treatment. The pathogenesis of GCA is incompletely understood, but it seems that the innate and adaptive immune systems play a key role in vessel inflammation, remodeling, and occlusion. We present a case of a 79-year-old male who developed GCA two days after he received his second dose of a COVID-19 mRNA vaccine. He presented with headaches, fever, and myalgias. Lab workup revealed elevated inflammatory markers, with C-reactive protein (CRP) 272 mg/L (<8.1 mg/L) and erythrocyte sedimentation rate (ESR) 97 mm/hr (0-20mm/hr). Imaging of the head, with CT and MRI, was unremarkable. His headache persisted despite supportive treatment, and he developed new, transient blurred vision, which increased suspicion for GCA. He underwent bilateral temporal artery biopsies, which were consistent with GCA. His symptoms resolved quickly with oral prednisone 60mg daily, and his inflammatory markers returned to normal within a month. A review of the literature revealed several case reports of giant cell arteritis following influenza vaccination. However, no large-scale studies have

demonstrated a causal relationship between GCA and immunization. Our case demonstrates the first instance of GCA following a COVID-19 mRNA vaccine. We propose that the upregulated immune response to the vaccine acted as a trigger for GCA in this patient with predisposing factors. While causation cannot be determined based on one case alone, our case demonstrates an opportunity for further research into the relationship between vasculitis and immunizations. Despite this isolated case, the proven benefits of COVID-19 mRNA vaccines significantly outweigh any theoretical risk of immune dysregulation following administration.

Case Reports: Cureus. 2022 May 27;14(5):e25388. doi: 10.7759/cureus.25388. eCollection 2022 May.

A Case of Giant Cell Arteritis Presenting After COVID-19 Vaccination: Is It Just a Coincidence?

Chenfan Xia, Rachel Edwards, Bita Omidva

PMID: 35774715 PMCID: PMC9236663 DOI: 10.7759/cureus.25388

Abstract

Giant cell arteritis (GCA) has been reported post the coronavirus disease 2019 (COVID-19) vaccination, especially with the mRNA vaccine. A normal erythrocyte sedimentation rate (ESR) is seen in some GCA patients. This report describes a 68-year-old gentleman who presented with a right-sided temporal headache for three weeks, starting three to five days after his second dose of the ChAdOx1 nCoV-19 vaccine, a viral vector vaccine, which was given seven weeks post the first dose. On presentation, he developed blurred vision in the left eye, and it progressed to complete vision loss four days later. He also had episodes of blurred vision in the right eye. The blood test showed a mildly elevated C-reactive protein of 29 mg/L and a normal erythrocyte sedimentation rate (ESR) of 4 mm/hr. Optical coherence tomography showed anterior ischaemic optic neuropathy in the left eye and retinal ischemia in the right eye. Bilateral giant cell arteritis (GCA) was confirmed on temporal artery biopsy. He was treated with methylprednisolone pulse therapy followed by prednisolone. He re-presented with intermittent blurry vision in the right eye three months later. He was treated with methylprednisolone pulse therapy again, followed by prednisolone, aspirin, and tocilizumab. This case describes a patient who developed

GCA post ChAdOx1 nCoV-19 vaccination with a normal ESR. Further studies are needed to investigate this relationship as causal or incidental and the likelihood of low-level inflammatory makers in such a situation.

Case Reports: J Autoimmun. 2021 Dec:125:102738. doi: 10.1016/j.jaut.2021.102738. Epub 2021 Oct 12.

A case of Graves' disease and type 1 diabetes mellitus following SARS-CoV-2 vaccination

Armando Patrizio, Silvia Martina Ferrari, Alessandro Antonelli, Poupak Fallahi

PMID: 34653776 PMCID: PMC8506108 DOI: 10.1016/j.jaut.2021.102738

Abstract

Autoimmune diseases, including autoimmune endocrine diseases (AIED), are thought to develop following environmental exposure in patients with genetic predisposition. The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and vaccines against it could represent new environmental triggers for AIED. We report a patient, with history of vitiligo vulgaris and 8 years of type 2 diabetes, who came to our institution because of fever, weight loss, asthenia and thyrotoxicosis occurred 4 weeks later the administration of BNT162B2 (Pfizer-BioNTech) SARS-CoV-2 vaccine. Clinical, biochemical and instrumental work-up demonstrated Graves' disease and autoimmune diabetes mellitus. The occurrence of these disorders could be explained through different mechanism such as autoimmune/inflammatory syndrome induced by adjuvants (ASIA syndrome), mRNA "self-adjuvant" effect, molecular mimicry between human and viral proteins and immune disruption from external stimuli. However further studies are needed to better understand the underlying pathogenesis of AIED following SARS-CoV-2 vaccine.

Case Reports: Eur J Case Rep Intern Med . 2022 Apr 14;9(4):003275. doi: 10.12890/2022_003275. eCollection 2022.

A Case of Graves' Disease Following Vaccination with the Oxford-AstraZeneca SARS-CoV-2 Vaccine: Case Report and Review of the Literature

Dalia Cuenca, Mercedes Aguilar-Soto, Moisés Mercado

PMID: 35520363 PMCID: PMC9067422 DOI: 10.12890/2022_003275

Abstract

A 57-year-old man presented to the outpatient clinic with tremor, palpitations, weight loss and fatigue 1 week after receiving the first dose of the Oxford-AstraZeneca SARS-CoV-2 vaccine (ChAdOx1 nCoV-19). Laboratory studies showed a suppressed TSH with elevated total and free T4. Thyroid peroxidase and thyroglobulin antibodies were elevated but thyrotropin receptor autoantibodies were indeterminate. Thyroid scintigraphy with technetium Tc-99m pertechnetate revealed increased diffuse, symmetric uptake. The patient was treated with thiamazole 15 mg three times a day and propranolol with resolution of his symptoms and normalization of his thyroid function tests until discontinuation of the antithyroid drug 6 months after symptom onset.

Learning points: Thyroid autoimmunity triggered by SARS-CoV-2 vaccines is being increasingly recognized among patients with and without a history of autoimmune thyroid disease.Symptoms and signs of thyrotoxicosis, including fever and tachycardia, can be wrongly attributed to the systemic adverse events of these vaccines.Early recognition of this condition is mandatory to allow proper treatment with anti-thyroid medications and radioactive iodine when necessary.

Case Reports: ACG Case Rep J. 2023 Jun 14;10(6):e01079.

doi: 10.14309/crj.0000000000001079. eCollection 2023 Jun.

A Rare Case of COVID-19 Vaccination-Induced Cholangiopathic Liver Injury

Sobaan Taj, Harshavardhan Sanekommu, Anmol Johal, Jayasree Ravilla, Steven Imburgio, Sowmya Dandu, Apurva Vedire, Brett Miller, Mohammad Hossain

PMID: 37324828 PMCID: PMC10266518

DOI: 10.14309/crj.0000000000001079

Abstract

Drug-induced liver injury is a serious adverse drug reaction that can result in acute liver injury or cholestatic injury affecting the bile ducts, known as cholangiopathic liver injury (CLI). Although CLI is not as familiar as the hepatocellular pattern, emerging evidence suggests that it may occur after coronavirus disease 2019 (COVID-19) vaccination. This case report focuses on an 89-year-old woman who developed CLI after receiving the tozinameran COVID-19 vaccine. The main aim of this report was to raise awareness of the possibility of developing CLI after COVID-19 vaccination and to underscore the critical significance of promptly identifying and managing this infrequent but severe side effect.

Case Reports: Radiol Case Rep. 2022 Apr 5;17(6):1916-1920.

doi: 10.1016/j.radcr.2022.03.039. eCollection 2022 Jun.

A rare case of COVID-19 vaccine-induced myopericarditis in a young adult

Arman Sharbatdaran, Yasmeen Chahal, Mirsadra Molaei, Dishang Bhavsar

PMID: 35401904 PMCID: PMC8980502 DOI: 10.1016/j.radcr.2022.03.039

Abstract

Although extremely rare, the COVID-19 mRNA vaccine can induce myopericarditis without left ventricular dysfunction, and there have been rare reports of such incidents. However, these prior cases either did not have pericardial effusion without reduced left ventricular ejection fraction or had a more typical presentation of vaccine-induced myopericarditis such as shortness of breath or tactile temperature. We present a rare case of a 25-year-old man who developed myopericarditis following administration of the second dose of COVID-19 mRNA Vaccine. As vaccination plays a significant role in the fight against the COVID-19 pandemic, it is essential to highlight the physical manifestations of the vaccine's potential adverse effects and risk factors to increase the general population's awareness regarding the importance of emergent medical care.

Case Reports: BMJ Case Rep. 2021 Sep 17;14(9):e244223.
doi: 10.1136/bcr-2021-244223.

A rare case of COVID-19 vaccine-induced thrombotic thrombocytopaenia (VITT) involving the veno-splanchnic and pulmonary arterial circulation, from a UK district general hospital

Huma Asmat, Folusho Fayeye, Hameed Alshakaty, Jay Patel

PMID: 34535492 PMCID: PMC8451313 DOI: 10.1136/bcr-2021-244223

Abstract

A 47-year-old woman presented with a headache to the acute medical unit, 10 days after receiving AstraZeneca vaccination for COVID-19. Brain imaging was normal, but her blood tests showed a remarkably low platelet count, mildly deranged liver function tests and a high D-dimer. Further within her hospital admission, she developed right-sided abdominal pain and chest pain, and subsequent cross-sectional imaging confirmed a small segmental pulmonary embolism, and an acute portal vein thrombosis extending to the splenic and superior mesenteric veins. On the basis of her investigations, she was diagnosed as a case of vaccine-induced thrombotic thrombocytopenia and was treated with intravenous immunoglobulins. In a time where there is a strategic goal to vaccinate the global population from COVID-19 to inhibit the spread of infection and reduce hospitalisation, this particular clinical scenario emphasises the need of all clinicians to remain vigilant for rare complications of the COVID-19 vaccination.

Case Reports: Cureus. 2022 Apr 21;14(4):e24355. doi: 10.7759/cureus.24355. eCollection 2022 Apr.

A Rare Case of COVID-19 Vaccine-Induced Thrombotic Thrombocytopenia in a Young Patient

Osama Sobh, Najla AlSoofi, Afarah Alatifi, Lamees Alsulaim, Hassan Dahhan, Mohammed Abuselmiya, Ahmed AlJarallah, Marwa M Elmaghrabi

PMID: 35611033 PMCID: PMC9124062 DOI: 10.7759/cureus.24355

Abstract

The syndrome of pulmonary SARS-Cov-2 resulted in significant morbidity and mortality, with new variants spreading rapidly. Vaccines to prevent COVID-19 have been developed to minimize the impact and severity; however, adverse effects of the vaccine have been documented in several studies. In our case, we report a case of a young female who presented to the emergency department with fever, dizziness, headache, vomiting, blurring of vision, numbness, and weakness of left upper and lower limbs. This weakness progressed rapidly to all limbs within two hours associated with altered behaviors and visual hallucinations. The family reported a history of the patient receiving her first dose of COVID-19 AstraZeneca vaccine 18 days before admission. Based on her clinical picture and investigation, she was diagnosed with vaccine-induced immune thrombotic thrombocytopenia (VITT). She was treated successfully with intravenous immunoglobulin (IVIG) and direct oral anticoagulant apixaban. In a time when there is a strategic goal to vaccinate the global population from COVID-19 to inhibit the spread of infection and reduce hospitalization, this particular clinical scenario emphasizes the need for all clinicians to remain vigilant for rare complications of the COVID-19 vaccination.

Case Reports: Eur Rev Med Pharmacol Sci. 2022 Apr;26(7):2627-2630. doi: 10.26355/eurrev_202204_28500.

A rare case of grave's disease after SARS-CoV-2 vaccine: is it an adjuvant effect?

A Taieb 1, N Sawsen, B A Asma, S Ghada, E Hamza, H Yosra, M Amel, C Molka, K Maha, A Koussay

PMID: 35442478 DOI: 10.26355/eurrev_202204_28500

Abstract

The COVID-19 virus has been responsible for the development of several systemic diseases. Recently, the COVID-19 vaccine has also been incriminated in the development of autoimmune diseases. Currently, researchers have focused on the relationship between the COVID-19 vaccine and the activation of autoimmune phenomenon. We report a case of Graves' disease (GD) whose symptoms appeared 3 days after vaccination against COVID-19. A forty-three-year-old female, without pathological history, presented with diarrhea and palpitation. She received her first SARS-CoV-2 Vaccine dose (Pfizer-BioNTech), in August 2021. Three days after the vaccine, she felt palpitations, sleep disorders, muscle weakness, and heat intolerance. On examination, her pulse was 119 beats per minute, she weighed 63 kg, and she had lost 4 kg in only two months. GD was suspected. Thyroid hormone testing showed low thyroid-stimulating hormone, and an elevated serum free thyroxine hormone T4 level. Serology tests were positive for TSH receptor autoantibodies (TRAB). A GD induced by adjuvants of SARS-CoV-2 vaccine has been retained as a final diagnosis. Several autoimmune diseases have been attributed to adjuvant-induced autoimmune/inflammatory syndrome, including systemic sclerosis, systemic lupus erythematosus and rheumatoid arthritis, and recently few cases of GD have been explained by this phenomenon.

Case Reports: Eur J Case Rep Intern Med. 2021 Sep 14;8(9):002707. doi: 10.12890/2021_002797. eCollection 2021.

A Rare Case of Guillain-Barré Syndrome following COVID-19 Vaccination

Yash Kripalani, Vidyadhara Lakkappan, Lipeeka Paruleka, Anjum Shaikh, Rakesh Singh, Pradeep Vyas

PMID: 34671572 PMCID: PMC8523377 DOI: 10.12890/2021_002797

Abstract

Various vaccines against COVID-19 have been developed since SARS-CoV-2 emerged at the end of 2019. Their emergency administration in healthcare settings has been accompanied by numerous adverse effects. A case of Guillain-Barré syndrome following vaccination with Covishield is presented here to highlight this possible adverse condition.

Learning points: Guillain-Barré Syndrome (GBS) is a very rare complication after vaccination against SARS-CoV-2.The key concepts related to the understanding, management and outcomes of patients with GBS are discussed.

Case Reports: SN Compr Clin Med. 2021;3(12):2618-2621.

doi: 10.1007/s42399-021-01025-9. Epub 2021 Sep 8.

A Rare Case of Henoch-Schönlein Purpura Following a COVID-19 Vaccine-Case Report

Abdelhamid Naitlho, Wahib Lahlou, Abderrahim Bourial, Hamza Rais, Nabil Ismaili, Imad Abousahfa, Lahcen Belyamani

PMID: 34518812 PMCID: PMC8425851 DOI: 10.1007/s42399-021-01025-9

Abstract

In the COVID-19 pandemic era, anti-SARS-CoV-2 vaccination is considered to be the most efficient way to overtake the COVID-19 scourge. Like all medicines, vaccines are not devoid of risks and can in rare cases cause some various side effects. The objective of this case report is to highlight this unusual presentation of Henoch-Schönlein purpura following an anti-COVID-19 vaccination in a 62-year-old adult. The 62-year-old patient admitted to the emergency room for a petechial purpuric rash, sloping, occurring within hours, involving both legs and ascending. The clinical signs also included polyarthralgia and hematuria. Reported in the history the notion of an anti-COVID-19 vaccination 8 days prior to the onset of symptomatology. In the case of our patient, we retain the diagnosis of rheumatoid purpura based on the EULAR/PRINTO/PReS diagnostic criteria. Corticosteroid therapy (prednisone) was started, resulting to a rapid regression of clinical and laboratory symptoms, few days after the treatment. Patient was asymptomatic on subsequent visits. The low number of published cases of post-vaccine vasculitis does not question the safety of vaccines, but knowledge of such complications deserves to be known in order to avoid new immunizations that could have more serious consequences, and to avoid aggravating or reactivating a pre-existing vasculitis.

Case Reports: Doi: 10.12890/2022_003553 - European Journal of Case Reports in Internal Medicine - © EFIM 2022

A Rare Case of Longitudinally Extensive Transverse Myelitis Following Pfizer-BioNTech COVID-19 Vaccination with a Favourable Outcome

Ojbindra KC, Punya Hari Dahal, Manisha Koirala, Sumeet Kumar Yadav

Received: 24/08/2022 A*ccepted: 07/09/2022 Published: 15/09/2022*

Abstract

Introduction: mRNA COVID-19 vaccines are very safe, but rare adverse events such as transverse myelitis have been reported after COVID-19 vaccination.

Case Description: We report the case of 50-year-old man who presented with progressive lower extremity weakness, back pain and urinary retention after his second dose of the Pfizer COVID-19 vaccine. MRI of the spine revealed longitudinally extensive transverse myelitis (LETM). He recovered completely after treatment with intravenous methylprednisone and physical therapy.

Discussion: This case highlights the rare association between LETM and COVID-19 vaccines and encourages clinicians to maintain a high index of suspicion for prompt diagnosis and treatment.

LEARNING POINTS

- Longitudinally extensive transverse myelitis (LETM) is rare adverse events after mRNA COVID-19 vaccination.

- Clinicians should maintain a high index of suspicion for prompt diagnosis of vaccine-induced transverse myelitis.
- Vaccine-induced LETM should show marked clinical improvement after appropriate treatment.

Case Reports: SN Compr Clin Med. 2023;5(1):18. doi: 10.1007/s42399-022-01357-0. Epub 2022 Dec 7.

A Rare Case of MDA-5-Positive Amyopathic Dermatomyositis with Rapidly Progressive Interstitial Lung Disease Following COVID-19 mRNA Vaccination - a Case Report

Shuwei Wang, Bassel Noumi, Fardina Malik, Shudan Wang

PMID: 36530960 PMCID: PMC9735185 DOI: 10.1007/s42399-022-01357-0

Abstract

We report a rare case of new-onset MDA-5-positive amyopathic dermatomyositis with rapidly progressive interstitial lung disease (RP-ILD) following the second dose of the COVID-19 mRNA vaccine. Our patient was a previously healthy Asian female in her 60 s who presented with fatigue, dyspnea on exertion, and typical dermatomyositis (DM) rashes without muscle involvement two weeks after receiving the second dose of the COVID-19 mRNA BNT162b2 vaccine. Workup revealed high titer MDA-5 antibodies, abnormal pulmonary function tests, and ground-glass opacities on chest imaging. She had good response to early aggressive therapy with high-dose steroids, intravenous (IV) rituximab, mycophenolate mofetil, and intravenous immunoglobulin (IVIG). This case highlights the potential immunogenicity of COVID-19 mRNA vaccines and the possibility of new-onset systemic rheumatic syndromes after vaccination. More studies are needed to understand a definitive causal relationship and improve surveillance of adverse immunological events following COVID-19 vaccinations.

Case Reports: Cureus. 2022 May 7;14(5):e24802. doi: 10.7759/cureus.24802. eCollection 2022 May.

A Rare Case of Myocarditis After the First Dose of Moderna Vaccine in a Patient With Two Previous COVID-19 Infections

Aniekeme S Etuk, Inimfon N Jackson, Hercules Panayiotou

PMID: 35676986 PMCID: PMC9169579 DOI: 10.7759/cureus.24802

Abstract

Myocarditis is the inflammation of the cardiac muscle caused by a variety of factors ranging from infections to autoimmune diseases. Most cases of vaccine-induced myocarditis occur after the second dose of vaccination; however, a few cases have been reported following the first dose of vaccination with or without previous coronavirus disease 2019 (COVID-19) infection. A case of myocarditis occurring about three weeks after the first dose of the Moderna vaccine has been reported in a patient with one previous COVID-19 infection. However, there have not been any documented cases of myocarditis after the first dose of the Moderna vaccine in a patient with two prior COVID-19 infections. Our index patient had already experienced two COVID-19 infections in the past and was diagnosed with myocarditis eight hours after receiving the first dose of the Moderna vaccine. The susceptibility to developing this likely stems from the possible production of antibodies to the viral antigen from previous COVID-19 infections. Furthermore, the fact that our patient developed symptoms eight hours after receiving the vaccine suggests a possible additive effect of antibodies produced from the two previous COVID-19 infections. This case report suggests that individuals repeatedly infected with COVID-19 may be at increased risk of myocarditis following the administration of the Moderna vaccine.

Case Reports: G Ital Cardiol (Rome). 2022 Apr;23(4):244-246. doi: 10.1714/3766.37531.

[A rare case of myocarditis and pulmonary embolism after BNT162b2 mRNA vaccine]

Niccolò Mancini, Lauro Cortigiani, Giovanni Aquaro, Francesco Maria Bovenzi

PMID: 35343473 DOI: 10.1714/3766.37531

Abstract

In the clinical research arsenal, the COVID-19 vaccines are the strongest weapons against the most important worldwide sanitary crisis of the last centuries. Even if vaccine adverse events have mild clinical relevance, several thromboembolic events occurring after adenoviral recombinant vaccine administration have been reported. Cases of myocarditis and pericarditis after administration of mRNA vaccines have also recently been described. We report the case of a patient who suffered from two rare adverse events after BNT162b2 mRNA vaccine administration (Pfizer-BioNTech): acute myocarditis and pulmonary embolism. Although the temporal consequentiality does not demonstrate a causal link, the strong analogies emerging in the latest clinical reports suggest a possible relation. Further studies are needed to understand the potential mechanisms of myocardial damage and atypical thrombosis. Despite the favorable and self-limiting clinical course of post-vaccinal myocarditis, in these cases a tight follow-up is advisable and vaccine adverse event reporting remains mandatory, especially if not described during pivotal clinical trials.

Case Reports: Clin Exp Vaccine Res. 2021 May;10(2):198-201. doi: 10.7774/cevr.2021.10.2.198. Epub 2021 May 31.

A rare case of shingles after COVID-19 vaccine: is it a possible adverse effect?

Saliha Buşra Aksu, Güzin Zeren Öztürk

PMID: 34222134 PMCID: PMC8217581 DOI: 10.7774/cevr.2021.10.2.198

Abstract

Coronavirus disease 2019 (COVID-19) exhibit mild to moderate symptoms, whereas 15% of COVID-19 cases progress to pneumonia, some associated cutaneous findings are also reported as maculopapular eruptions, morbilliform rashes, urticaria, chickenpox-like lesions, and livedo reticularis. The inactivated COVID-19 vaccines are authorized for use in some countries including Turkey. Here, we report an unusual case of varicella-zoster virus (VZV) reactivation in a 68-year-old male patient who was vaccinated against COVID-19. The patient presented to family medicine clinic with a stinging sensation and pain radiating from the right side of his chest to his back. Physical examination revealed multiple pinheaded vesicular lesions upon an erythematous base occupying an area on his right mammary region and back corresponding to T3-T5 dermatomes. He reported that he got his second dose of COVID-19 vaccine 5 days ago. As COVID 19 decreases the cell-mediated immunity, it could also increase the risk of herpes zoster (HZ). Although the exact reason remains unsolved, vaccine-induced immunomodulation caused by live attenuated vaccines and attenuated alloreactivity caused by inactivated vaccines may be responsible mechanisms for the reactivation of HZ. Epidemiological studies are needed to clarify the possible connection between vaccination and reactivation of herpesvirus infections.

Case Reports: Surg Neurol Int. 2021 Aug 16:12:408. doi: 10.25259/SNI_689_2021. eCollection 2021.

A rare case of vaccine-induced immune thrombosis and thrombocytopenia and approach to management

Raghavendra Kotal, Ipe Jacob, Pradeep Rangappa, Karthik Rao, Guruprasad Hosurkar, Satish Kumar Anumula, Avinasha M Kuberappa

PMID: 34513173 PMCID: PMC8422498 DOI: 10.25259/SNI_689_2021

Abstract

Background: The use of the COVID-19 vaccines Vaxzevria from AstraZeneca and Covishield from Janssen has been associated with sporadic reports of thrombosis with thrombocytopenia, a complication referred to as vaccine-induced immune thrombotic thrombocytopenia (VITT) or vaccine-induced prothrombotic immune thrombocytopenia. It presents commonly as cerebral sinus venous thrombosis (CSVT), within 4-30 days of vaccination. Females under 55 years of age are considered to be especially at high risk. Mortality up to 50% has been reported in some countries. Identification of early warning signs and symptoms with prompt medical intervention is crucial.

Case description: We report here a case of VITT in a young female who presented 11 days after receiving the first dose of the Covishield vaccine, with severe headache and hemiparesis. She was diagnosed with CSVT with a large intraparenchymal bleed, requiring decompressive craniectomy and extended period on mechanical ventilation.

Conclusion: The patient was successfully treated with intravenous immunoglobulin and discharged after 19 days in ICU. Although she was left with long-term neurological deficits, an early presentation and a multidisciplinary approach to management contributed toward a relatively short stay in hospital and avoided mortality.

Case Reports: Case Rep Dermatol Med. 2022 Dec 31:2022:4267930. doi: 10.1155/2022/4267930. eCollection 2022.

A Rare Cutaneous Manifestation: Leukocytoclastic Vasculitis after Pfizer-BioNTech COVID-19 Vaccination

Yaritza Serrano Gomez, Brittney Grella, Hongbei Wang

PMID: 36624889 PMCID: PMC9825212 DOI: 10.1155/2022/4267930

Abstract

There is growing evidence that vaccines against SARS-CoV-2 can cause various skin reactions, many of which have autoimmune origins. These specific vaccine-induced autoimmune conditions with cutaneous manifestations include lupus erythematosus, bullous pemphigoid, vitiligo, alopecia areata, and leukocytoclastic vasculitis (LCV). In particular, LCV, which is also called hypersensitivity vasculitis, is an inflammation of small blood vessels. We present a case of an 81-year-old male evaluated in the emergency department for a bilateral purpuric non-blanching rash that appeared ten days after receiving the Pfizer-BioNTech booster vaccine against SARS-CoV-2. Results of a skin biopsy indicated LCV, and the rash completely resolved three weeks after clinical presentation.

International Immunopharmacology, Volume 145, 3 January 2025, 113737

A rare long-term side effect of COVID-19 vaccines: Symmetrical drug-related intertriginous and flexural exanthema-like reaction SDRIFE and potential immunogens for delayed type hypersensitivity reactions

panelMeryem Demir, Nilay Duman, Hatice Serpil Akten, Sinem Inan, Kasim Okan, Onurcan Yildirim, Haydar Soydaner Karakus, Su Ozgur, Ozlem Goksel

Abstract

Background: Symmetrical drug-related intertriginous and flexural exanthema (SDRIFE) is an important clinical entity that is rare and may develop with a Type IV delayed type hypersensitivity immune response to drug antigens. The incidence and characteristics of SDRIFE attributed to COronaVIrus Disease of 2019 (COVID-19) vaccines remain unclear, this issue requires further elucidation.

Objective: We aim to investigate the vaccine-related-SDRIFE and potential immunogens of COVID-19 vaccines through a literature review accompanied by a real case.

Methods: A new vaccine related-SDRIFE case report and a literature review regarding COVID Vaccine related SDRIFE. In the years following the COVID vaccinations, all SDRIFE cases published between 2000 and 2024 were retrieved.

Results: The new case of vaccine-related SDRIFE developed following the COVID-19 Pfizer-BioNTech vaccine and was tolerated without any issues with the CoronaVac vaccine (Sinovac Biotech.,China) after negative skin tests. A literature search has revealed fifteen different types of SDRIFE cases related to COVID-19 vaccines since 2020. Diagnostic

skin testing with vaccine or any potentially immunogen parts of vaccine were performed in six patients. All tests were negative except for one late intradermal test positivity.

Conclusion: This mini review showed that SDRIFE due to COVID vaccines is a rare, but a significant adverse event that has a potential to impair patient compliance with subsequent vaccines. Identification and avoidance of potential allergens through standardized skin tests and diagnostic immunological work-up will contribute to vaccine compliance and better management of hypersensitivity reactions.

Case Reports: Mod Rheumatol Case Rep. 2023 Jun 19;7(2):410-415.
doi: 10.1093/mrcr/rxac097.

A rare presentation of rapidly progressing myopathy in an adolescent

Jack Pepys, Robin J Borchert, Narmathy Thambirajah, Cyrus Daruwalla, Dimitrios Apostolopoulos, Dominic G O'Donovan, Timothy Ham, Charlotte Brierley

PMID: 36562098 DOI: 10.1093/mrcr/rxac097

Abstract

We present a case of severe juvenile dermatomyositis with limited response to steroids in an adolescent who developed symptoms within hours after receiving Pfizer BNT162b2 coronavirus disease 2019 vaccine. The patient presented with severe weakness of proximal muscles, dyspnoea, and tachycardia. His muscle enzymes were raised, and he was diagnosed with severe juvenile dermatomyositis following magnetic resonance imaging and muscle biopsy. His management was challenging, requiring multidisciplinary input, and difficult decisions with regard to the appropriate immunomodulatory treatments. The patient had to undergo escalating immunosuppressive treatments before he began to recover clinically and biochemically. To our knowledge, this is the first case in an adolescent although a few cases of similar presentations following coronavirus disease 2019 vaccination have been reported in adults. Elucidating the potential relationship of the vaccine with this severe myopathy in an adolescent is important for global vaccination policies, but avoiding the conflation of association with causation is also crucial in the context of the pandemic.

Case Reports: J Community Hosp Intern Med Perspect. 2021 Nov 15;11(6):772-775. doi: 10.1080/20009666.2021.1979745. eCollection 2021.

A rare presentation of undiagnosed multiple sclerosis after the COVID-19 vaccine

Ariana R Tagliaferri, George Horani, Katherine Stephens, Patrick Michael

PMID: 34804388 PMCID: PMC8604537 DOI: 10.1080/20009666.2021.1979745

Abstract

Multiple sclerosis (MS) is an auto-immune mediated neurological disorder that affects the central nervous system and leads to myelin sheath destruction. The pathogenesis of MS involves T helper cells causing inflammation and eventual death of the oligodendrocytes. Etiologies for the development of MS include a combination of genetic, environmental, and immune factors. Vaccines have been proposed to increase the immune response and have reportedly activated some autoimmune disorders. Although certain vaccines such as hepatitis B have been associated with MS, studies have refuted these cases. We present a rare case of a 32-year-old patient who presented with symptoms and suggestive of MS a few days after receiving the COVID vaccine. Laboratory and imaging findings confirmed the diagnosis of MS, and she was started on steroids and discharged in a stable condition a few days after.

Case Reports: Eur Heart J Case Rep. 2022 Jan 9;6(1):ytac004.
doi: 10.1093/ehjcr/ytac004. eCollection 2022 Jan.

A report of two cases of myocarditis following mRNA coronavirus disease 2019 vaccination

Christopher Paul Bengel, Rifat Kacapor

PMID: 35169677 PMCID: PMC8755378 DOI: 10.1093/ehjcr/ytac004

Abstract

Background: Vaccination is the most important measure to control the coronavirus disease 2019 (COVID-19) pandemic. Myocarditis has been reported as a rare adverse reaction to COVID-19 vaccines. The clinical presentation of myocarditis in such cases can range from mild general symptoms to acute heart failure.

Case summary: We report the cases of two young men who presented with chest pain and dyspnoea following the administration of the mRNA COVID-19 vaccine. Cardiac investigations revealed findings typical of acute myocarditis.

Discussion: Myocarditis is a rare complication following mRNA COVID-19 vaccination. In this case series, the temporal proximity of the development of acute myocarditis and the administration of the mRNA COVID-19 vaccine was acknowledged. In the absence of other causative factors, myocarditis in these patients potentially occurred due to an adverse reaction to the mRNA COVID-19 vaccine. However, a causal relationship remains speculative. Clinical suspicion of myocarditis should be high if patients present with chest pain or dyspnoea after receiving COVID-19 vaccination.

Spinal Cord Series and Cases volume 10, Article number: 30 (2024)
Published: 25 April 2024

A report on neurogenic bladder in COVID-19 vaccine-associated acute transverse myelitis

Muhamad Faizal Zainudin, Mohd Razali Hasim, Christina Eleanor Martin & Thanalactchumy Chandrabose

Abstract

Acute transverse myelitis (ATM) is a rare neurological complication of Coronavirus disease (COVID-19) vaccines. Various vaccines have been linked to ATM, such as non-replicating viral vectors, ribonucleic acid, and inactivated vaccines. An ATM case is presented here involving the BNT162b2 vaccine leading to asymmetrical incomplete paraplegia and neurogenic bladder.

Case presentation: A 66-year-old male developed urinary retention one day after his second dose of the BNT162b2 vaccine, followed by rapidly progressing lower limb weakness. Clinical examination showed asymmetrical paraparesis, reduced sensation below the T8 level, including perianal sensation, and loss of ankle and anal reflexes. Laboratory tests were largely unremarkable, while the spine MRI revealed thickened conus medullaris with a mild increase in T2/STIR signal intensity and subtle enhancement post gadolinium. Following treatment with methylprednisolone, plasmapheresis, and immunoglobulin, and a rehabilitation program, the patient achieved good motor and sensory recovery, but the bladder dysfunction persisted. Single-channel cystometry indicated neurogenic detrusor underactivity and reduced bladder sensation, as evidenced by low-pressure and compliant bladder. The urethral sphincter appeared intact or overactive. The post-void residual urine was significant, necessitating prolonged intermittent catheterisation.

Discussion: Bladder dysfunction due to the COVID-19 vaccine-associated ATM is not as commonly reported as motor or sensory deficits. To our knowledge, this is the first case to highlight a neurogenic bladder that necessitates prolonged intermittent catheterisation as a consequence of COVID-19 vaccine-associated ATM. This report highlights the rare complication of the neurogenic bladder resulting from the BNT162b2 vaccine. Early detection and treatment are crucial to prevent long-term complications.

Expert Review of Vaccines Volume 22, 2023 - Issue 1

A retrospective cohort study: vaccination status and safety analysis of SARS-CoV-2 vaccine in patients with Wilson's disease

Hui Han, Dan Zhao,Xinru Fang,Wenming Yang,Mengli Wang,Qianzhuo Liu,Luyao Wang,Zhihui Ji, Juan Zhang,Zhifeng Hou,Lei Hua,Yu Wang &Limin Wu show less

Received 25 Jun 2023, Accepted 23 Nov 2023, Published online: 01 Dec 2023

Abstract

Background: Wilson's disease (WD) is a rare hepatic and neurological disorder, which can dramatically worsen by traumatic injuries, surgeries, and infections. No studies have reported safety data of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination in WD patients. We aimed to investigate the SARS-CoV-2 vaccination status and post-vaccination adverse events in WD patients.

Methods: This is a multicenter, retrospective, observational study. We investigated the vaccination rates, the type of vaccine, subjective reasons for non-vaccination, and the adverse events following vaccination. Logistic regression analysis was used to assess the correlation between vaccination status and increased Unified Wilson's Disease Rating Scale (UWDRS) scores.

Results: A total of 554 WD patients with a mean (SD) age of 25.3 (10.85) years were included in this study, of whom 336 (60.6%) were males and 218 (39.4%) were females. 368 (66.4%) patients received at least one dose of the SARS-CoV-2 vaccine.186 (33.6%) patients were unvaccinated. Logistic regression analysis showed that vaccination against SARS-CoV-2 was not significantly associated with increased

UWDRS scores. The safety analysis demonstrated that 21.2% had post-vaccination adverse events.

Conclusions: In this study, vaccination against SARS-CoV-2 was safe in WD patients, providing evidence for the safety of vaccination in WD patients.

Review: Singapore Med J. 2023 Sep;64(9):543-549. doi: 10.11622/smedj.2021210.

A review of COVID-19 vaccination and the reported cardiac manifestations

Jamie Sin Ying Ho, Ching-Hui Sia, Jinghao Nicholas Ngiam, Poay Huan Loh, Nicholas Wen Sheng Chew, William Kok-Fai Kong, Kian-Keong Poh

PMID: 34808708 PMCID: PMC10564100 DOI: 10.11622/smedj.2021210

Abstract

In Singapore, 9.03 million doses of the mRNA COVID-19 vaccines by Pfizer-BioNTech and Moderna have been administered, and 4.46 million people are fully vaccinated. An additional 87,000 people have been vaccinated with vaccines in World Health Organization's Emergency Use Listing. The aim of this review is to explore the reported cardiac adverse events associated with different types of COVID-19 vaccines. A total of 42 studies that reported cardiac side effects after COVID-19 vaccination were included in this study. Reported COVID-19 vaccine-associated cardiac adverse events were mainly myocarditis and pericarditis, most commonly seen in adolescent and young adult male individuals after mRNA vaccination. Reports of other events such as acute myocardial infarction, arrhythmia and stress cardiomyopathy were rare. Outcomes of post-vaccine myocarditis and pericarditis were good. Given the good vaccine efficacy and the high number of cases of infection, hospitalisation and death that could potentially be prevented, COVID-19 vaccine remains of overall benefit, based on the current available data.

European Journal of Medical Research volume: Published: 25 February 2023

A review of neurological side effects of COVID-19 vaccination

Roya Hosseini & Nayere Askari European Journal of Medical Research

Volume 28, Article number: 102 (2023)

Abstract

Following the COVID-19 virus epidemic, extensive, coordinated international research has led to the rapid development of effective vaccines. Although vaccines are now considered the best way to achieve collective safety and control mortality, due to the critical situation, these vaccines have been issued the emergency use licenses and some of their potential subsequence side effects have been overlooked. At the same time, there are many reports of side effects after getting a COVID-19 vaccine. According to these reports, vaccination can have an adverse event, especially on nervous system. The most important and common complications are cerebrovascular disorders including cerebral venous sinus thrombosis, transient ischemic attack, intracerebral hemorrhage, ischemic stroke, and demyelinating disorders including transverse myelitis, first manifestation of MS, and neuromyelitis optica. These effects are often acute and transient, but they can be severe and even fatal in a few cases. Herein, we have provided a comprehensive review of documents reporting neurological side effects of COVID-19 vaccines in international databases from 2020 to 2022 and discussed neurological disorders possibly caused by vaccination.

Case Reports: Clin Case Rep. 2023 May 16;11(5):e7184. doi: 10.1002/ccr3.7184. eCollection 2023 May.

A severe case of rhabdomyolysis after Moderna mRNA anti-COVID-19 vaccine with a literature review

Maria Sheka, Yann Coattrenec, Kuntheavy Ing Lorenzini, Mathieu Nendaz

PMID: 37207086 PMCID: PMC10188898 DOI: 10.1002/ccr3.7184

Abstract

The identification of rhabdomyolysis as a potential fatal adverse reaction to recent COVID-19 vaccines is essential. As the symptoms of rhabdomyolysis are not specific, the threshold to actively search for this complication should be low.

Case Reports: Med Mycol Case Rep. 2022 Mar 12:36:19-22.

doi: 10.1016/j.mmcr.2022.03.001. eCollection 2022 Jun.

A severe case of Trichophyton rubrum-caused dermatomycosis exacerbated after COVID-19 vaccination that had to be differentiated from pustular psoriasis

Yuta Norimatsu, Yurie Norimatsu

PMID: 35299937 PMCID: PMC8917097 DOI: 10.1016/j.mmcr.2022.03.001

Abstract

We present a case of deep dermatomycosis caused by Trichophyton rubrum that developed after administration of SARS-CoV-2 BNT162b2 vaccination. A 75-year-old man was vaccinated with SARS-CoV-2 on day 0 and day 23. From day 25, pustules began to appear. A skin biopsy was performed. Tissue culture revealed the presence of Trichophyton rubrum. The patient was treated with topical luliconazole and 100 mg/day oral fosravuconazole for 84 days, after which the symptoms resolved.

Case Reports: Radiol Case Rep. 2022 Jul 12;17(9):3326-3330.
doi: 10.1016/j.radcr.2022.06.034. eCollection 2022 Sep.

A severe presentation of breakthrough infection caused by the Omicron variant with radiological findings of COVID-19 pneumonia in an elderly woman

Barbara Brogna, Chiara Capasso, Giovanni Fontanella, Elio Bignardi

PMID: 35846507 PMCID: PMC9275445 DOI: 10.1016/j.radcr.2022.06.034

Abstract

Omicron variant of COVID-19 is characterized by exceptional transmissibility and by immune evasion with the ability infect people with naturally acquired or vaccine-induced immunity. However, lung involvement is poorly reported in patients who resulted positive by this new COVID-19 variant. COVID-19 breakthrough infections are defined as COVID-19 infection in fully vaccinated patients. Herein, we present a case of breakthrough infection in an elderly woman who came in emergency with dyspnea and with findings of COVID-19 pneumonia on chest computed tomography. The patient was vaccinated with a booster dose of an mRNA vaccine some months earlier and the Omicron variant was detected on real-time reverse-transcription polymerase chain reaction. However, the patient's condition remained stable. For our knowledge we report the first case with lung involvement due to Omicron variant in an elderly after the booster dose of mRNA vaccine. This case highlights as COVID-19 breakthrough infections may represent some concerns in the elderly patients in presence of virus variants.

Case Reports: Case Rep Hematol. 2022 Sep 30:2022:4742639. doi: 10.1155/2022/4742639. eCollection 2022.

A Single-Centre Experience of Post-COVID-19 Vaccine-Related Immune-Mediated Complications

David Palmer, Lauren Davis, Helena Sivaloganathan, Timothy Chevassut

PMID: 36212779 PMCID: PMC9546669 DOI: 10.1155/2022/4742639

Abstract

effective vaccines. In the United Kingdom, the COVID-19 vaccine development and roll-out has been overwhelmingly successful in reducing infections and deaths. However, case reports have emerged of a rare syndrome of vaccine-induced immune thrombocytopenia and thrombosis (VITT), as well as cases of immune thrombocytopenia (ITP). This has necessitated a better understanding of these conditions. However, as both VITT and "vaccine-associated ITP" are emerging conditions, evidence on the clinical features, epidemiology, and management is still evolving. Subsequently, with the initiation of the COVID-19 vaccine booster program, it has become increasingly important to continue to collect accurate data on post-COVID-19 vaccine complications to aid with their prompt recognition and management. In this case series, we report on the presentations and management of seven cases of post-COVID-19 vaccine-related immune-mediated complications which occurred at our center between the months of March and July 2021.

Front Neurol. 2022 Feb 24:13:796882. doi: 10.3389/fneur.2022.796882. eCollection 2022..

A Single-Health System Case Series of New-Onset CNS Inflammatory Disorders Temporally Associated With mRNA-Based SARS-CoV-2 Vaccines

Ahmad A Ballout, Anna Babaie, Michael Kolesnik, Jian Yi Li, Natasha Hameed, Glenn Waldman, Frasat Chaudhry, Sami Saba, Asaff Harel, Souhel Najjar

PMID: 35280277 PMCID: PMC8908032 DOI: 10.3389/fneur.2022.796882

Abstract

Background: Since 2020, over 250 million doses of mRNA-based SARS-CoV-2 vaccines have been administered in the United States and hundreds of millions worldwide between the Pfizer-BioNTech and Moderna SARS-CoV-2 vaccines. To date, there have been rare reports associating mRNA-based SARS-CoV-2 vaccines with episodes of inflammatory and autoimmune CNS disorders. We report a case series of five patients with new-onset neurological disorders of inflammatory or immunological origin temporally associated with these vaccines.

Methods: A case-series of five patients within a single 23-hospital health system who developed new-onset CNS inflammatory disease within 2 weeks of receiving a dose of an mRNA-based SARS-CoV-2 vaccine.

Results: Five cases of post-vaccination CNS disorders of immune origin (fatal ADEM; n = 1, new-onset NMOSD; n = 2, new-clinical onset MS-like syndrome but with preexisting clinically silent mild demyelination; n = 1, meningoencephalitis; n = 1) observed within 2 weeks of inoculation with either the first or second dose of mRNA-

based SARS-CoV-2 vaccines (Moderna = 3, Pfizer = 2).

Discussion: To our knowledge, these are among the emerging cases of CNS adverse events of immunological or inflammatory origin. These findings should be interpreted with great caution as they neither prove a mechanistic link nor imply a potential long-term increased risk in post-vaccination CNS autoimmunity. Larger prospective studies assessing the potential association between mRNA-based vaccination and the development of neurological adverse events of suspected immune origin, particularly among those with underlying CNS or systemic autoimmune disorders, are needed. The use of mRNA-based SARS-CoV-2 vaccines should continue to be strongly encouraged given their high efficacy in overcoming this pandemic.

Case Reports: Transl Neurosci. 2022 Oct 7;13(1):349-353.

doi: 10.1515/tnsci-2022-0250. eCollection 2022 Jan 1

A singular case of hyposmia and transient audiovestibular post-vaccine disorders: case report and literature review

Francesco Fantin, Andrea Frosolini, Isabella Tundo, Ingrid Inches, Cristoforo Fabbris, Giacomo Spinato, Cosimo de Filippis

PMID: 36304095 PMCID: PMC9547348 DOI: 10.1515/tnsci-2022-0250

Abstract

Introduction: Rare and mild adverse effects on cranial nerves have been reported after vaccination. Here, we report a singular case of smell and taste disorder associated with tinnitus that occurred after Oxford-AstraZeneca vaccination together with a review of the available literature.

Case presentation: A 76-year-old patient experienced smell disorder, ear fullness and tinnitus 2 days after the first dose of Oxford-AstraZeneca vaccine. The patient then underwent a complete audiological and Ear, Nose and Throat evaluation, nasal endoscopy, Sniffin'Sticks battery, audiometric test battery, and cerebral magnetic resonance imaging (MRI). The exams revealed hyposmia and bilateral reduction of the volume of the olfactory bulbs (OB). At the follow-up, tinnitus was completely resolved while olfactory dysfunction only partially reduced.

Review of the literature: A PubMed search was conducted on olfactory and gustatory dysfunctions after COVID-19 vaccination resulting in four case reports with a total of 10 patients. The main symptoms were hyposmia, parosmia, and dysgeusia developed after 1-9 days from vaccination with complete resolution occurring within 1 month.

Notably, none of the considered articles reported reduction of OB volumes at cerebral MRI.

Discussion: So far, no definitive cause-effect relationship has been established between anti-COVID19 vaccination and otolaryngologic adverse reactions. The persistence of hyposmia in our patient could possibly be explained by the reduction in OB volume, even though also the advanced age of the patient needs to be taken into account. This is a first indication of a cause-effect relation between hyposmia and Covid19 vaccination, even though a more robust study is needed to confirm the autoimmunological mechanisms responsible for these rare adverse reactions. However, it is worth highlighting that benefits of the anti-COVID-19 vaccination clearly outweigh the risk of rare adverse events.

Heliyon : Volume 10, Issue 3e25204February 15, 2024

A solution towards a viable compensation mechanism for injury from COVID-19 vaccines in Malaysia: A qualitative study

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PMID: 36304095 PMCID: PMC9547348 DOI: 10.1515/tnsci-2022-0250

Abstract

Background: It has been established that the existing compensation mechanism is not the favoured platform for vaccine recipients with Adverse Effects Following Immunisation (AEFI). With the mass production of vaccines during the COVID-19 pandemic, intensified by the mandatory National COVID-19 Immunisation Programme in Malaysia, an alternative resolution mechanism for compensation is long overdue. This qualitative study aims to propose a viable alternative dispute resolution (ADR) mechanism for those who suffer AEFI from COVID-19 vaccination, particularly the economically disadvantaged, older people, and disabled individuals in Malaysia.

Methods: The researchers conducted an in-depth focus group discussion in September 2022 involving seven participants representing key stakeholders in vaccine compensations from governmental agencies, non-governmental organisations (NGOs), and private institutions who were experts in litigation and legislation, consumer protection, and medical practices in Malaysia. The study utilised ATLAS.ti 22 to conduct a thematic analysis.

Findings: The analysis yielded three themes: existing mechanisms and their challenges, the role of ADR, and the solution for a vaccine injury compensation mechanism. The participants shared their knowledge and

experience regarding the existing vaccine compensation mechanisms in Malaysia, i.e. the common law of Tort and Consumer Protection Act 1999, and explained how each mechanism relates to specific challenges or arguments that provide the basis on which they are unable to accord fair compensation to the vaccine recipients. The participants debated the merits and disadvantages of the types of ADR for AEFI and unanimously proposed a specific healthcare centre for compensation (SHCC) as the most viable compensation mechanism for AEFI.

Conclusion: SHCC offers a new ADR to serve as a compensation mechanism for claimants affected by the COVID-19 vaccines while also contributing to achieving Sustainable Development Goal 16: peace, justice, and strong institutions.

Diabetol Metab Syndr. 2023 Apr 25;15(1):81. doi: 10.1186/s13098-023-01059-0.

A study of glycemic perturbations following two doses of COVID-19 vaccination for patients with diabetes: the impacts of vaccine type and anti-diabetes drugs

Cheng-Wei Lin, Shih-Yuan Hung, I-Wen Chen

PMID: 37098548 PMCID: PMC10125862 DOI: 10.1186/s13098-023-01059-0

Abstract

Background: Glycemic monitoring has become critical during the COVID-19 pandemic because of poor prognosis in diabetes. Vaccines were key in reducing the spread of infection and disease severity but data were lacking on effects on blood sugar levels. The aim of the current study was to investigate the impact of COVID-19 vaccination on glycemic control.

Methods: We performed a retrospective study of 455 consecutive patients with diabetes who completed two doses of COVID-19 vaccination and attended a single medical center. Laboratory measurements of metabolic values were assessed before and after vaccination, while the type of vaccine and administrated anti-diabetes drugs were analyzed to find independent risks associated with elevated glycemic levels.

Results: One hundred and fifty-nine subjects received ChAdOx1 (ChAd) vaccines, 229 received Moderna vaccines, and 67 received Pfizer-BioNtech (BNT) vaccines. The average HbA1c was raised in the BNT group from 7.09 to 7.34% (P = 0.012) and non-significantly raised in ChAd (7.13 to 7.18%, P = 0.279) and Moderna (7.19 to 7.27%, P = 0.196) groups. Both Moderna and BNT groups had around 60% of patients with elevated HbA1c following two doses of COVID-19

vaccination, and the ChAd group had only 49%. Under logistic regression modeling, the Moderna vaccine was found to independently predict the elevation of HbA1c (Odds ratio 1.737, 95% Confidence interval 1.12-2.693, P = 0.014), and sodium-glucose co-transporter 2 inhibitor (SGLT2i) was negatively associated with elevated HbA1c (OR 0.535, 95% CI 0.309-0.927, P = 0.026).

Conclusions: Patients with diabetes might have mild glycemic perturbations following two doses of COVID-19 vaccines, particularly with mRNA vaccines. SGLT2i showed some protective effect on glycemic stability. Hesitancy in having vaccinations should not be indicated for diabetic patients with respect to manageable glycemic change.

Case Rep Ophthalmol. 2022 Feb 14;13(1):96-103. doi: 10.1159/000522080. eCollection 2022 Jan-Apr.

A Sudden Rise of Patients with Acute Macular Neuroretinopathy during the COVID-19 Pandemic

Maarten B Jalink, Inge H G Bronkhorst

PMID: 35350236 PMCID: PMC8921888 DOI: 10.1159/000522080

Abstract

The aim of this paper is to inform on the surge of cases of acute macular neuroretinopathy (AMN) - a rare disease characterized by the sudden onset of acute scotomas caused by ischemia of the retinal capillary plexus - during the COVID-19 pandemic. In 2021, during the COVID-19 pandemic, a sudden rise in patients with AMN was observed in our clinic. In this paper, 4 cases from a hospital in the south of the Netherlands are reported, all of which could directly be linked to a COVID-19 infection or vaccination against the corona virus. A search for similar cases in the PubMed database produced thirteen relevant reports, which revealed that a similar increase in cases of AMN, all linked to COVID-19, has been observed worldwide. Analysis of the literature revealed that AMN is seen more often during the pandemic and that AMN after COVID-19 happens at a significantly older age than typically reported. This is the largest case series of patients with AMN after COVID-19 infection or vaccination. With the ongoing pandemic and extensive vaccination programs, it is expected that cases of AMN will surge. It is important for ophthalmologists to be aware of this disease, especially since typical patient characteristics may differ.

Case Reports : Pediatr Infect Dis J. 2022 Nov 1;41(11):e456-e460. doi: 10.1097/INF.0000000000003674. Epub 2022 Aug 25.

A Suspected Case of Multisystem Inflammatory Disease in Children Following COVID-19 Vaccination: A Case Report and Systematic Literature Review

Jue Seong Lee, Kyu Sik Cho, Young June Choe

PMID: 36102702 PMCID: PMC9555605 DOI: 10.1097/INF.0000000000003674

Abstract

Multisystem inflammatory syndrome in children (MIS-C) is rare but can be a potentially serious complication following SARS-CoV-2 infection in children. 1 Introduction of coronavirus disease 2019 (COVID-19) vaccines are effective in lowering the burden due to SARS-CoV-2. However, there have been reports of MIS occurrence following COVID-19 vaccination in adults. 2 The potential public health implication of MIS-C following COVID-19 vaccination is not clear in children. Our objective is to describe the spectrum of clinical disease, therapy, and outcomes of MIS-C following COVID-19 vaccination in children..

J Neuroimmunol. 2022 Jan 15:362:577765. doi: 10.1016/j.jneuroim.2021.577765. Epub 2021 Nov 9.

A systematic review of cases of CNS demyelination following COVID-19 vaccination

Ismail Ibrahim Ismail, Sara Salama

PMID: 34839149 PMCID: PMC8577051 DOI: 10.1016/j.jneuroim.2021.577765

Abstract

Background: Since the emergency use approval of different types of COVID-19 vaccines, several safety concerns have been raised regarding its early and delayed impact on the nervous system.

Objective: This study aims to systematically review the reported cases of CNS demyelination in association with COVID-19 vaccination, which has not been performed, to our knowledge.

Methods: A systematic review was performed by screening published articles and preprints of cases of CNS demyelination in association with COVID-19 vaccines in PubMed, SCOPUS, EMBASE, Google Scholar, Ovid and medRxiv databases, until September 30, 2021. This study followed PRISMA guidelines. Descriptive findings of reported cases were reviewed and stratified by demographic and clinical findings, diagnostic work-up, management, and overall outcome.

Results: A total of 32 cases were identified, with female predominance (68.8%) and median age of 44 years. Eleven cases were reported after Pfizer vaccine, 8 following AstraZeneca vaccine, 6 following Moderna, 5 following Sinovac/ Sinopharm vaccines, and one following each of Sputnik and Johnson&Johnson vaccines. The majority of cases (71.8%) occurred after the first dose of the vaccine, with neurological symptoms manifesting after a median of 9 days. The most common

reported presentations were transverse myelitis (12/32) and MS-like pictures (first diagnosis or a relapse) in another 12/32 cases, followed by ADEM- like (5/32), and NMOSD- like (3/32) presentations. History of a previous immune-mediated disease was reported in 17/32 (53.1%) cases. The mRNA-based vaccines resulted in the greatest number of demyelinating syndromes (17/32), followed by viral vector vaccines (10/32), and inactivated vaccines (5/32). Most MS-like episodes (9/12) were triggered by mRNA-based vaccines, while TM occurred following both viral vector and mRNA-based vaccines. Management included high dose methylprednisolone, PLEX, IVIg, or a combination of those, with a favorable outcome in the majority of case; marked/complete improvement (25/32) or stabilized/ partial recovery in the remaining cases.

Conclusion: This systematic review identified few cases of CNS demyelination following all types of approved COVID-19 vaccines so far. Clinical presentation was heterogenous, mainly following the first dose, however, half of the reported cases had a history of immune-mediated disease. Favorable outcome was observed in most cases. We suggest long-term post-marketing surveillance for these cases, to assess for causality, and ensure the safety of COVID-19 vaccines.

Review Article : Volume 362577765 January 15, 2022

A systematic review of cases of CNS demyelination following COVID-19 vaccination

Ismail Ibrahim Ismaila,dr.ismail.ibrahim2012@gmail.com· Sara Salamab

PMID: 34839149 PMCID: PMC8577051 DOI: 10.1016/j.jneuroim.2021.577765

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Current Drug Safety Volume 20, Issue 1, 2025

Published on: 24 January, 2024

DOI: 10.2174/0115748863273931231121072231

A Systematic Review of the COVID Vaccine's Impact on the Nervous System

Viswarupachari Tanguturi Yella, Sumit Pareek, Bhumika Meena, K.S.B.S. Krishna Sasanka, Pugazhenthan Thangaraju and Sree Sudha T Y*

Abstract

Aims & Objectives: The objective of this study was to conduct a systematic review of research pertaining to the COVID-19 vaccine and its association with neurological complications.

Method: We performed a comprehensive search of the literature using Google Scholar, PubMed, and NCBI databases from December 2021 to December 2022. For Google Scholar, PubMed, and NCBI databases we used the following key search terms: "neurological adverse effects", "COVID-19 vaccination", "SARS-CoV-2", CNS complications, and CNS adverse effects. Two reviewer authors individually searched and assessed the titles and abstracts of all articles. The third reviewer resolved the disagreement between them. Data were documented regarding title, study location, type of study, type of COVID-19 vaccine, type of neurological complications/ adverse effects, and sample size.

Results: From our findings, it is confirmed that these neurological complications like Guillain- Barre syndrome (23.6%), Neuromyelitis Optica spectrum disorder (5.5%), Neuropathy (6.9%), Transverse Myelitis (8.3%) and Acute disseminated Encephalomyelitis (4.1%) are majorly affected in most of the people. The increase in risks associated

with SARS-CoV-2 infection far outweighs any previously reported associations with vaccination.

Conclusion: We found no safety signal was observed between COVID-19 vaccines and the immune- mediated neurological events. Before assuming a causal relationship, the side effects of the COVID-19 vaccine should first be carefully examined to rule out known associated factors. Symptom onset was within two weeks of vaccination in the majority of cases; as such, this seems to be a high-risk period warranting vigilance.

Dermatol Ther. 2022 Jun;35(6):e15461. doi: 10.1111/dth.15461. Epub 2022 Apr 11.

A systematic review on mucocutaneous presentations after COVID-19 vaccination and expert recommendations about vaccination of important immune-mediated dermatologic disorders

Farnoosh Seirafianpour, Homa Pourriyahi, Milad Gholizadeh Mesgarha, Arash Pour Mohammad, Zoha Shaka, Azadeh Goodarzi

PMID: 35316551 PMCID: PMC9111423 DOI: 10.1111/dth.15461

Abstract

With dermatologic side effects being fairly prevalent following vaccination against COVID-19, and the multitude of studies aiming to report and analyze these adverse events, the need for an extensive investigation on previous studies seemed urgent, in order to provide a thorough body of information about these post-COVID-19 immunization mucocutaneous reactions. To achieve this goal, a comprehensive electronic search was performed through the international databases including Medline (PubMed), Scopus, Cochrane, Web of science, and Google scholar on July 12, 2021, and all articles regarding mucocutaneous manifestations and considerations after COVID-19 vaccine administration were retrieved using the following keywords: COVID-19 vaccine, dermatology considerations and mucocutaneous manifestations. A total of 917 records were retrieved and a final number of 180 articles were included in data extraction. Mild, moderate, severe and potentially life-threatening adverse events have been reported following immunization with COVID vaccines,

through case reports, case series, observational studies, randomized clinical trials, and further recommendations and consensus position papers regarding vaccination. In this systematic review, we categorized these results in detail into five elaborate tables, making what we believe to be an extensively informative, unprecedented set of data on this topic. Based on our findings, in the viewpoint of the pros and cons of vaccination, mucocutaneous adverse events were mostly non-significant, self-limiting reactions, and for the more uncommon moderate to severe reactions, guidelines and consensus position papers could be of great importance to provide those at higher risks and those with specific worries of flare-ups or inefficient immunization, with sufficient recommendations to safely schedule their vaccine doses, or avoid vaccination if they have the discussed contra-indications.

Pathogens . 2022 Apr 3;11(4):435. doi: 10.3390/pathogens11040435.

A Three-Case Series of Thrombotic Deaths in Patients over 50 with Comorbidities Temporally after modRNA COVID-19 Vaccination

Luca Roncati, Antonio Manenti, Lorenzo Corsi

PMID: 35456110 PMCID: PMC9032304 DOI: 10.3390/pathogens11040435

Abstract

Coronavirus disease 2019 (COVID-19) is the most dramatic pandemic of the new millennium; to counteract it, specific vaccines have been launched in record time under emergency use authorization or conditional marketing authorization by virtue of a favorable risk/benefit balance. Among the various technological platforms, there is that exploiting a nucleoside-modified messenger RNA (modRNA), such as Comirnaty®, and that which is adenoviral vector-based. In the ongoing pharmacovigilance, the product information of the latter has been updated about the risk of thrombotic thrombocytopenia, venous thromboembolism without thrombocytopenia and immune thrombocytopenia without thrombosis. However, from an in-depth literature review, the same adverse events can rarely occur with modRNA vaccines too. In support of this, we here report a three-case series of thrombotic deaths in patients over 50 with comorbidities temporally after Comirnaty®, investigated by means of post-mortem histopathology and immunohistochemistry. In two out of three cases, the cause of death is traced back to pulmonary microthromboses rich in activated platelets, quite similar morphologically to those described in patients who died from severe COVID-19. Even if remote in the

face of millions of administered doses, clinicians should be aware of the possible thrombotic risk also after Comirnaty®, in order to avoid a misdiagnosis with potentially lethal consequences. Since COVID-19 vaccines are inoculated in subjects to be protected, maximum attention must be paid to their safety, and prophylactic measures to increase it are always welcome. In light of the evidence, the product information of modRNA COVID-19 vaccines should be updated about the thrombotic risk, as happened for adenoviral vector-based vaccines.

Case Reports : Ocul Immunol Inflamm. 2021 Aug 18;29(6):1212-1215. doi: 10.1080/09273948.2021.1974492. Epub 2021 Sep 10.

Vogt-Koyanagi-Harada Disease Associated with COVID-19 mRNA Vaccine

Lin Ru Koong, Wai Kitt Chee, Zhi Hong Toh, Xin Le Ng, Rupesh Agrawal, Su Ling Ho

PMID: 34505819 DOI: 10.1080/09273948.2021.1974492

Abstract

A 54-year-old Chinese male with no previous ocular history presented to the ophthalmology department for the bilateral acute painless blurring of vision after receiving the 1st dose of COVID-19 mRNA vaccine (PFIZER-BioNTech/COMIRNATY). Clinical examination and imaging tests were consistent with Vogt-Koyanagi-Hara disease. The patient responded well with a high dose of intravenous methylprednisolone followed by a tapering dose of oral prednisolone.

Case Reports : SAGE Open Med Case Rep. 2022 Oct 24:10:2050313X221131169. doi: 10.1177/2050313X221131169. eCollection 2022.

Acute pancreatitis as an adverse effect of COVID-19 vaccination

Robert Cacdac, Arsia Jamali, Raika Jamali, Khashayar Nemovi, Kia Vosoughi, Zeynep Bayraktutar

PMID: 36313269 PMCID: PMC9608244 DOI: 10.1177/2050313X221131169

Abstract

While vaccination against COVID-19 has significantly improved the morbidity and mortality of the disease, with the increase in the administration of COVID-19 vaccines, it is more likely to observe their rare side effects in the clinical settings. Herein, we report a case of an 82-year-old man with history of coronary artery disease, prostate cancer in remission, gastroesophageal reflux disease, and hypothyroidism, who presented with acute pancreatitis few hours after receiving the third dose of Pfizer-BioNTech BNT162b2 mRNA COVID-19 vaccine, without other identified etiology. His symptoms were mild and he was discharged in a stable condition after improvement in his condition with supportive care.

Case Reports : SAGE Open Med Case Rep. 2022 Oct 24:10:2050313X221131169. doi: 10.1177/2050313X221131169. eCollection 2022.

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While vaccination against COVID-19 has significantly improved the morbidity and mortality of the disease, with the increase in the administration of COVID-19 vaccines, it is more likely to observe their rare side effects in the clinical settings. Herein, we report a case of an 82-year-old man with history of coronary artery disease, prostate cancer in remission, gastroesophageal reflux disease, and hypothyroidism, who presented with acute pancreatitis few hours after receiving the third dose of Pfizer-BioNTech BNT162b2 mRNA COVID-19 vaccine, without other identified etiology. His symptoms were mild and he was discharged in a stable condition after improvement in his condition with supportive care.

Case Reports : Heliyon. 2023 Jan;9(1):e12914. doi: 10.1016/j.heliyon.2023.e12914. Epub 2023 Jan 14.

Acute pancreatitis following COVID-19 vaccine: A case report and brief literature review

Seyyed Javad Boskabadi, Shahram Ala, Fatemeh Heydari, Mahbobeh Ebrahimi, Alireza Nikzad Jamnani

PMID: 36685416 PMCID: PMC9840226 DOI: 10.1016/j.heliyon.2023.e12914

Abstract

Vaccination is the most effective way to overcome COVID-19 morbidity and mortality. However, Covid-19 vaccines may cause potential adverse effects. We reported a 28-year-old healthy woman who was referred to the emergency department with a chief complaint of severe abdominal pain, nausea and hemoptysis. She has received two doses of COVID-19 vaccine (Sinopharm BIBP). Similar this time, three days after the injection of the second dose of the Sinopharm BIBP COVID-19 vaccine, abdominal and flank pain appeared, for which she has referred to the emergency department. After necessary tests and pancreatitis was confirmed, we started fluid therapy, plasmapheresis, gemfibrozil and insulin for patient management. The COVID-19 vaccines may lead to acute pancreatitis. The mechanism of pancreatitis caused by COVID-19 vaccines is unclear. Acute pancreatitis can develop after COVID-19 vaccination. This process can even happen a few months later. Therefore, to better diagnosis and prevention of long-term complications, it is necessary to measuring the lipase or amylase in patients that received COVID-19 vaccine if abdominal pain was occurred.

Case Reports : J Med Case Rep. 2022 Sep 29;16(1):354.

doi: 10.1186/s13256-022-03607-0.

Acute pancreatitis in pregnancy following COVID-19 vaccine: a case report

Rajib Kumar Dey, Hemamala Ilango, Subash Bhatta, Ahmed Shaheed, Shanaz Dole, Ahmed Zooshan, Mohamed Faisham, Moosa Murad

PMID: 36175940 PMCID: PMC9521872 DOI: 10.1186/s13256-022-03607-0

Abstract

Background: Since the approval of the Pfizer-BioNTech (BNT162b2) mRNA vaccine for COVID-19 infection, a few adverse effects have been reported. Acute pancreatitis has been reported in a few patients. However, there is currently no research showing a direct relationship between the vaccine and acute pancreatitis. Here, we report a case of acute pancreatitis following Pfizer vaccination in a young healthy pregnant woman without any known risk factors. To our knowledge, this is the first case report of possible vaccine-induced pancreatitis in a pregnant woman.

Case presentation: The patient, a 24-year-old South-Asian female, at 31 weeks of gestation, presented with severe epigastric pain radiating to the back and worsening on lying supine, associated with nausea and vomiting. She was diagnosed with acute pancreatitis with a serum lipase level of 4376 U/L and an ultrasound showing features of pancreatitis. The patient received her first dose of the Pfizer vaccine 1 week prior to these symptoms. Detailed evaluation did not show any etiological cause of pancreatitis. The patient had a spontaneous vaginal delivery and the baby was shifted to the neonatal intensive care unit in a stable condition. A computed tomography scan postpartum (day 2)

demonstrated acute interstitial edematous pancreatitis. The patient was managed conservatively in the intensive care unit and discharged home in a stable condition.

Conclusion: This report highlights the importance of a detailed history and evaluation, and the close monitoring of any patient presenting with abdominal pain after vaccination. Acute pancreatitis can be fatal if not picked up early.

Case Reports : J Med Case Rep. 2022 Sep 29;16(1):354.

doi: 10.1186/s13256-022-03607-0.

Acute pancreatitis soon after COVID-19 vaccination: A case report

Sotaro Ozaka, Takamoto Kodera, Shimpei Ariki, Takashi Kobayashi, Kazunari Murakami

PMID: 35029194 PMCID: PMC8757977 DOI: 10.1097/MD.0000000000028471

Abstract

Rationale: In response to the global coronavirus infectious disease 2019 (COVID-19) pandemic, several vaccines against severe acute respiratory syndrome coronavirus 2 have been developed. Although many infrequent side effects of COVID-19 mRNA vaccine have been reported, only a few cases of pancreatitis have been reported.

Patient concerns: A 71-year-old woman was presented to the hospital with upper abdominal pain and vomiting. She had no history of alcohol consumption, pancreatitis, or allergic reactions to vaccines. She had received the first dose of the Pfizer/BioNTech COVID-19 mRNA vaccine 2 days prior to her current presentation. Laboratory tests revealed elevated serum pancreatic enzymes. An abdominal computed tomography scan showed diffuse enlargement of the pancreas with fat stranding extending to below the kidneys bilaterally.

Diagnosis: The patient was diagnosed with acute pancreatitis.

Interventions: The patient was treated with the administration of intravenous antimicrobials, proteolytic enzyme inhibitors, and proton pump inhibitors.

Outcomes: The patient had an uneventful recovery with no complications.

Lessons: Acute pancreatitis can develop shortly after COVID-19 mRNA vaccination. Therefore, of great importance to differentiate acute pancreatitis when abdominal pain occurs after COVID-19 mRNA vaccination.

Case Reports : Cureus. 2021 Apr 28;13(4):e14741. doi: 10.7759/cureus.14741.

Acute Pancreatitis: A Possible Side Effect of COVID-19 Vaccine

Om Parkash, Artem Sharko, Aneeba Farooqi, Grace W Ying, Prashant Sura

PMID: 34084669 PMCID: PMC8163516 DOI: 10.7759/cureus.14741

Abstract

For the first time, the mRNA technology was utilized to produce a vaccine against COVID-19 after the unprecedented pandemic equally affected every part of the world. Pfizer-BioNTech (BNT162b2) mRNA vaccine against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was granted emergency use authorization (EUA) by Food and Drug Administration (FDA) in December 2020. EUA has been widely discussed in the medical literature and the general public. The safety of the BNT162b2 vaccine has been investigated in short-term trials with data available for three months. We present a case of a 96-year-old female with a past surgical history of cholecystectomy who presented with acute onset severe abdominal pain a few days after getting the first dose of Pfizer-BioNTech COVID-19 vaccine. She was diagnosed with acute pancreatitis with a lipase level of 4036 U/L. Extensive history and investigations were unable to find any etiology. The patient was conservatively managed and discharged home without any complications. There has been some data available in medical literature showing an association between acute pancreatitis and

COVID-19 infection. Trial data of Pfizer COVID-19 also shows one case of acute pancreatitis in the treatment group. There have also been individual cases of unexplained acute pancreatitis shared by medical professionals on online forums. Our main goal to write this case is to make medical literature aware of possible emerging side effects of the COVID-19 vaccine, one of such side effects being self-resolving uncomplicated acute pancreatitis.

Case Reports : Am J Ophthalmol Case Rep. 2022 Oct 13:28:101726.
doi: 10.1016/j.ajoc.2022.101726. eCollection 2022 Dec.

Acute panuveitis after COVID-19 mRNA booster vaccination following cataract surgery

Timothy-Paul H Kung, Charles Zhang, Sandra F Sieminski

PMID: 36267387 PMCID: PMC9557133 DOI: 10.1016/j.ajoc.2022.101726

Abstract

Purpose: To report a case of presumed COVID-19 Pfizer third dose (booster) vaccination leading to severe panuveitis mimicking acute endophthalmitis in the early postoperative period following routine cataract extraction and intraocular lens implantation.

Observations: A 68-year-old female with mild refractive error who previously received 2 doses of the BNT162b2 vaccine underwent routine cataract extraction and intraocular lens implantation in the right eye. On postoperative day (POD) 2 the patient received her BNT162b2 booster vaccination. On POD 3 the patient's vision was hand motion at face with photophobia. Anterior segment examination was significant for 2+ conjunctival injection, mild stromal edema, 4+ cell and flare with trace hypopyon, and 4+ anterior vitreous cell without any wound leak. Subsequent Gram staining, culture for aerobic and anaerobic bacteria, KOH preparation, and PCR testing for infectious organisms were also obtained, all of which were found to be negative. ESR and CRP values were also negative. The patient was started on intravitreal injections of vancomycin and ceftazidime, as well as oral moxifloxacin, fortified

vancomycin and tobramycin drops, prednisolone acetate 1%, and atropine 1%. On POD 5 the patient reported significant improvement of her vision and was found to have 20/80 vision. On POD 12 her vision improved to 20/25, and improved further on POD 19 to 20/20 vision with a completely normal examination. Cultures remained negative throughout the entire course.

Conclusions and importance: This is the first report to suggest a possible association between the BNT162b2 booster vaccination and development of acute panuveitis in the postoperative period after routine cataract extraction and intraocular lens implantation. This condition may mimic acute bacterial postoperative endophthalmitis and may portend a more favorable prognosis, but the authors believe such cases should nonetheless be treated aggressively as presumed infection.

Int J Cardiol . 2023 Mar 1:374:129-134. doi: 10.1016/j.ijcard. 2022.12.019. Epub 2022 Dec 10.

Acute pericarditis as a major clinical manifestation of long COVID-19 syndrome

Frank Lloyd Dini, Umberto Baldini, Ibadete Bytyçi, Nicola Riccardo Pugliese, Gani Bajraktari, Michael Y Henein

PMID: 36513284 PMCID: PMC9734068 DOI: 10.1016/j.ijcard.2022.12.019

Abstract

Background: The long COVID-19 syndrome has been recently described and some reports have suggested that acute pericarditis represents important manifestation of long COVID-19 syndrome. The aim of this study was to identify the prevalence and clinical characteristics of patients with long COVID-19, presenting with acute pericarditis.

Methods: We retrospectively included 180 patients (median age 47 years, 62% female) previously diagnosed with COVID-19, exhibiting persistence or new-onset symptoms ≥12 weeks from a negative naso-pharyngeal SARS CoV2 swamp test. The original diagnosis of COVID-19 infection was determined by a positive swab. All patients had undergone a thorough physical examination. Patients with suspected heart involvement were referred to a complete cardiovascular evaluation. Echocardiography was performed based on clinical need and diagnosis of acute pericarditis was achieved according to current guidelines.

Results: Among the study population, shortness of breath/fatigue was reported in 52%, chest pain/discomfort in 34% and heart palpitations/ arrhythmias in 37%. Diagnosis of acute pericarditis was made in 39 patients (22%). Mild-to-moderate pericardial effusion was reported in 12, while thickened and bright pericardial layers with small effusions

(< 5 mm) with or without comet tails arising from the pericardium (pericardial B-lines) in 27. Heart palpitations/arrhythmias (OR:3.748, p = 0.0030), and autoimmune disease and allergic disorders (OR:4.147, p = 0.0073) were independently related to the diagnosis of acute pericarditis, with a borderline contribution of less likelihood of hospitalization during COVID-19 (OR: 0.100, p = 0.0512).

Conclusion: Our findings suggest a high prevalence of acute pericarditis in patients with long COVID-19 syndrome. Autoimmune and allergic disorders, and palpitations/arrhythmias were frequently associated with pericardial disease.

Case Reports : Cureus. 2022 Feb 12;14(2):e22148. doi: 10.7759/cureus.22148. eCollection 2022 Feb.

Acute Pericarditis Post mRNA-1273 COVID Vaccine Booster

Arminder Singh, Lam Nguyen, Stephanie Everest, Safi Afzal, Ahmed Shim

PMID: 35308666 PMCID: PMC8919431 DOI: 10.7759/cureus.22148

Abstract

Cardiovascular complications such as arrhythmias, hypoxemic cardiomyopathy, pericarditis, myocardial infarction, heart failure, and myocarditis are rare but seen in COVID-19 patients. These cardiac injuries could be the result of direct SARS-CoV-2 effects. The most prominent mediator of this hypothesis is angiotensin-converting enzyme-2 (ACE2) receptors, which are highly expressed in heart and lung tissues. These ACE2 receptors are found to be the functional receptors for the Coronavirus. Another hypothesis for cardiac complications in COVID-19 patients is macrophage-induced inflammation. The SARS-CoV-2 infection leads to invasion of epithelial cells by binding with ACE-2 receptors, localized inflammation, endothelial and macrophage activation, tissue damage, and dysregulated cytokine release. Current data have shown that mRNA COVID-19 vaccines are efficacious and safe for indicated patients. However, these vaccines can cause mild adverse reactions similar to those of traditional vaccines, and more severe side effects can also be seen infrequently. The exact pathogenesis of COVID-19 vaccine-induced pericarditis remains unknown, but there are several hypotheses regarding the pathophysiology of pericarditis after COVID-19 vaccine administrations. There has been speculation that mRNA vaccines can produce a large number of antibodies in a

small subgroup of people, especially young individuals, and this elicits an inflammatory response similar to the multisystem inflammatory syndrome associated with SARS-CoV-2 infection. Another proposed mechanism is the cross-reaction between produced antibodies and the pericardium, leading to myocardial and pericardial inflammation induction. This report describes a 69-year-old female who presented with three days of chest pain that started one day after a booster shot of the Moderna COVID-19 vaccine. The patient was diagnosed with pericarditis, and she was effectively treated with colchicine and later steroids.

Case Reports : Tohoku J Exp Med. 2022 Oct 25;258(3):177-182.
doi: 10.1620/tjem.2022.J068. Epub 2022 Aug 25.

Acute Perimyocarditis in an Adolescent Japanese Male after a Booster Dose of the BNT162b2 COVID-19 Vaccine

Yusuke Morita, Daisuke Matsubara, Mitsuru Seki, Daisuke Tamura, Toshihiro Tajima

PMID: 36002252 DOI: 10.1620/tjem.2022.J068

Abstract

Perimyocarditis is a rare and serious cardiac complication following COVID-19 vaccination. Young males are most at risk after the second dose. With the introduction of the booster (third) dose, some reports have focused on the risk of perimyocarditis after a booster dose. However, no currently available report in Japan has comprehensively described this phenomenon. A healthy 14-year-old Japanese male, who had completed a two-dose primary series of the BNT162b2 (Pfizer-BioNTech) vaccine six months prior, developed fever and chest pain within 24 hours after a homologous booster dose. He was transferred to our institute because of worsening chest pain. A multiplex PCR test showed no evidence of active viral infections, including SARS-CoV-2. Electrocardiography revealed ST-segment elevation in almost all leads, suggesting pericarditis. Echocardiography showed normal systolic function. Laboratory data demonstrated C-reactive protein levels of 8.8 mg/dL and elevated cardiac damage markers (troponin T, 1.9 ng/mL; creatine phosphokinase, 1527 U/L; MB isoenzyme, 120 U/L), suggesting myocarditis. He was diagnosed with perimyocarditis associated with

the booster dose, which was confirmed by cardiac magnetic resonance imaging four days after initial symptoms. Chest pain improved spontaneously along with a resolution of electrocardiographic findings and laboratory data within several days. He was discharged eight days after admission. Perimyocarditis is less frequent after a booster dose than after primary doses. In this case, the patient with booster-dose-associated perimyocarditis showed favorable clinical course without severe sequelae. The patient's clinical course was consistent with findings on previous large-scale reports on primary-dose-associated perimyocarditis and case series on booster-dose-associated perimyocarditis.

Case Reports : Vaccines (Basel). 2022 Aug 10;10(8):1286.

doi: 10.3390/vaccines10081286.

Acute Polyserositis with Cardiac Tamponade and Bilateral Refractory Pleural Effusion after ChAdOx1 nCoV-19 Vaccination

Guan-Yi Li, Chang-Ching Lee, Chin-Chou Huang

PMID: 36016174 PMCID: PMC9415510 DOI: 10.3390/vaccines10081286

Abstract

The association of SARS-CoV-2 messenger ribonucleic acid vaccines with pericarditis in young adults has been reported. However, data regarding other types of vaccines are extremely limited. We presented a 94-year-old man with rapidly progressive dyspnea and fatigue six days after his first ChAdOx1 nCoV-19 vaccination. Impending cardiac tamponade and bilateral pleural effusion were found. Hence, massive yellowish pericardial and pleural effusion were drained. However, the pleural effusion persisted and pigtail catheters were inserted bilaterally. After serial studies including surgical pleural biopsy, acute polyserositis (pericarditis and pleurisy) was diagnosed. Anti-inflammatory treatment with colchicine and prednisolone was administered. All effusions resolved accordingly. This rare case sheds light on the presentation of ChAdOx1 nCoV-19 vaccine-related acute polyserositis. In conclusion, awareness of this potential adverse event may facilitate the diagnosis for unexplained pericardial or pleural effusion after vaccination.

Case Reports : Cureus. 2022 Jul 13;14(7):e26825. doi: 10.7759/cureus.26825. eCollection 2022 Jul.

Acute Portal Vein Thrombosis Secondary to COVID-19 Vaccination

Matthew L Repp, Seth Cohen, Caitlin Kibbey

PMID: 35971366 PMCID: PMC9372381 DOI: 10.7759/cureus.26825

Abstract

Portal vein thrombosis (PVT) is a partial or complete occlusion of the hepatic portal vein most frequently seen in patients with cirrhotic liver disease. Various non-cirrhotic conditions including inherited prothrombic blood disorders, neoplasms, and inflammatory diseases create hypercoagulable states that predispose individuals to blood clotting. Rarely does an exhaustive workup leave the etiology of a PVT unknown or unclear, and even more uncommon is a potential new etiology suspected. Our patient is a 34-year-old female, with no significant risk factors for pathologic clotting, who was diagnosed with an acute PVT several days after receiving the Moderna coronavirus disease 2019 (COVID-19) vaccine.

Case Reports : Front Neurol. 2021 Nov 4:12:764197. doi: 10.3389/fneur.2021.764197. eCollection 2021.

Acute Psychosis Due to Anti-N-Methyl D-Aspartate Receptor Encephalitis Following COVID-19 Vaccination: A Case Report

Patrick Flannery, Ingrid Yang, Madjid Keyvani, George Sakoulas

PMID: 34803896 PMCID: PMC8599934 DOI: 10.3389/fneur.2021.764197

Abstract

Anti-N-methyl D-aspartate (NMDA) receptor (anti-NMDAR) encephalitis has been reported after SARS-CoV-2 infection, but not after SARS-CoV-2 vaccination. We report the first known case of anti-NMDAR encephalitis after SARS-CoV-2 immunization in a young female presenting with acute psychosis, highlighting a rare potential immunological complication of vaccination against SARS-CoV-2 that is currently being distributed worldwide. The patient presented initially with anxiety and hypochondriacal delusions which progressed to psychosis and catatonia but returned to baseline with aggressive immunomodulatory therapy consisting of intravenous immunoglobulin, high-dose glucocorticoids, and rituximab. This study highlights that the workup of acute psychosis should include establishing a history of recent vaccination followed by a thorough neurological assessment, including for anti-NMDAR antibodies in blood and cerebrospinal fluid.

Case Reports : Indian J Thorac Cardiovasc Surg . 2023 Mar;39(2):194-197. doi: 10.1007/s12055-022-01458-4. Epub 2023 Jan 10.

Acute pulmonary artery thromboembolism in presence of large mobile right atrial thrombus and severe thrombocytopenia

Patrick Flannery, Ingrid Yang, Madjid Keyvani, George Sakoulas

PMID: 36686039 PMCID: PMC9838476 DOI: 10.1007/s12055-022-01458-4

Abstract

Acute pulmonary embolism in presence of thrombocytopenia poses a challenging situation to manage. Concomitant presence of right atrial thrombus and thrombocytopenia will further complicate the situation. We hereby report a case of large right atrial thrombus with massive saddle bilateral pulmonary artery embolism with severe thrombocytopenia managed surgically with successful outcome..

Case Reports : Inflamm Res. 2021 Sep;70(9):931-933.

doi: 10.1007/s00011-021-01476-9. Epub 2021 Jun 4.

Acute reduction of visual acuity and visual field after Pfizer-BioNTech COVID-19 vaccine 2nd dose: a case report

Luca Spiro Santovito, Graziano Pinna

PMID: 34086060 PMCID: PMC8176659 DOI: 10.1007/s00011-021-01476-9

Abstract

Long-term and rare adverse effects of COVID-19 vaccines are unknown. Hence, it is important to report them to improve the safety profile of the vaccines and enhance their use worldwide. Here, we describe a case of acute visual impairment after Pfizer-BioNTech vaccine second dose.

Case Reports : Hum Vaccin Immunother. 2021 Oct 3;17(10):3481-3483. doi: 10.1080/21645515.2021.1928463. Epub 2021 May 20.

Acute relapse and poor immunization following COVID-19 vaccination in a rituximab-treated multiple sclerosis patient

Masoud Etemadifar, Amirhossein Akhavan Sigari, Nahad Sedaghat, Mehri Salari, Hosein Nouri

PMID: 34015240 PMCID: PMC8437516 DOI: 10.1080/21645515.2021.1928463

Abstract

With the progress of COVID-19 vaccination programs worldwide, some new adverse events associated with the available vaccines may unfold, especially in subpopulations, representatives of whom were not included in phase I, II, and III clinical trials of these vaccines, such as patients with autoimmune diseases, including multiple sclerosis (MS). A 34-year-old woman presented with severe right hemiplegia and ataxia. She was diagnosed with relapsing-remitting MS (RRMS) 13 years ago and treated with rituximab (an anti-CD20 monoclonal antibody) during the last 15 months. She had received her first dose of adenovirus-vectored COVID-19 vaccine Gam-COVID-Vac (Sputnik V) three months after her last infusion of rituximab and three days before experiencing her latest MS relapse episode, preceded by mild symptoms (fatigue, myalgia, generalized weakness, etc.). Magnetic resonance imaging revealed several new periventricular, juxtacortical, brainstem, and cerebellar peduncle lesions. She received corticosteroid therapy for five consecutive days, and her neurological deficits slightly improved. Twenty-one days after receiving the first dose of the vaccine, her anti-SARS-CoV-2 antibodies were below the lower detection limit. However, a decision was made to adhere to the vaccination schedule and not risk

the patient's safety against an unfortunate COVID-19 contraction, and thus, she was advised to receive the second Gam-COVID-Vac dose after discontinuation of oral steroid taper. The safety of adenovirus-based vaccines in patients with autoimmune diseases requires further investigation. Meanwhile, clinicians should raise awareness among their patients regarding the potentially limited efficacy of COVID-19 vaccination in those treated with anti-CD20 treatments. After careful, individualized risk-benefit assessments, planning a delay/pause in such treatments to create a time window for patients to receive the vaccine and develop anti-SARS-CoV-2 immunity may be recommended.

Case Reports : Ocul Immunol Inflamm. 2022 Jul;30(5):1133-1135.
doi: 10.1080/09273948.2021.2001540. Epub 2021 Dec 1.

Acute Retinal Necrosis from Reactivation of Varicella Zoster Virus following BNT162b2 mRNA COVID-19 Vaccination

Franklin Zheng, Alex Willis, Nancy Kunjukunju

PMID: 34851795 DOI: 10.1080/09273948.2021.2001540

Abstract

Purpose: To report a case of acute retinal necrosis (ARN) due to varicella zoster virus (VZV) after COVID-19 vaccine administration.

Design/methods: Observational case report.

Result: A 62-year-old immunocompetent African American male presented with left eye redness, decreased vision, and floaters after receiving a COVID-19 vaccine seven days prior. Slit-lamp examination revealed diffuse fine endothelial keratic precipitates. Funduscopic examination was notable for vitreous cells, occlusive retinal vasculitis, large retinal hemorrhages, and three quadrants of peripheral areas of retinal whitening. Quantitative polymerase chain reaction testing was positive for varicella zoster virus in the vitreous humor. Treatment with intravitreal and intravenous antiviral therapy resulted in symptomatic improvement.

Conclusion: COVID-19 mRNA vaccination may cause an immunomodulatory response that leads to reactivation of dormant VZV. Early recognition and treatment can improve visual outcomes.

However, a decision was made to adhere to the vaccination schedule and not risk

Case Reports : ase Rep Ophthalmol. 2022 Nov 10;13(3):823-828.
doi: 10.1159/000527598. eCollection 2022 Sep-Dec.

Acute Retinal Pigment Epitheliitis following Vaccination

Hirofumi Sasajima, Masahiro Zako, Akari Aoyagi, Yoshiki Ueta, Takafumi Suzuki

PMID: 36601646 PMCID: PMC9807051 DOI: 10.1159/000527598

Abstract

We present a rare case of acute retinal pigment epitheliitis (ARPE) following vaccination. An 18-year-old Japanese man visited our hospital with a 5-day history of a central scotoma in the right eye. He had received the second dose of coronavirus disease 2019 vaccination (BNT162b2 mRNA, Pfizer-BioNTech) 1 month prior, following which he developed a low-grade fever of 37.3-37.5°C for 2 days accompanied by joint pain. Although he had received influenza vaccination 5 days prior to this presentation, no systemic symptoms other than injection site pain were observed. Blood test results were unremarkable. Ophthalmological examination revealed a decimal best-corrected visual acuity (BCVA) of 0.8 and 1.2 in the right and left eyes, respectively. Intraocular pressure was 15 mm Hg in both eyes. Intraocular inflammation was not observed. Fundus examination revealed a localized lesion of pigment stippling associated with yellowish hypopigmentation in the fovea. Fluorescein angiography revealed slight transmission hyperfluorescence without leakage. Optical coherence tomography (OCT) revealed disruption of the external limiting membrane (ELM), ellipsoid zone (EZ), and interdigitation zone (IZ). We diagnosed the patient with ARPE in the right eye. The patient was followed up without treatment. Five weeks after onset, the central scotoma in the right eye disappeared, and patient's

BCVA in the right eye improved to 1.5. OCT showed improvement in ELM and EZ continuity in the right eye, but IZ remained disruptive. Although the exact pathophysiology of the association between ARPE and these vaccinations is unclear, ARPE may develop after the vaccination.

Case Reports : ACG Case Rep J. 2022 Jul 1;9(7):e00806.

doi: 10.14309/crj.0000000000000806. eCollection 2022 Jul.

Acute Severe Ulcerative Colitis After mRNA Coronavirus Disease 2019 Vaccination: Can mRNA Vaccines Unmask Inflammatory Bowel Diseases?

Çağatay Ak, Süleyman Sayar, Gupse Adalı, Kamil Özdil

PMID: 35784512 PMCID: PMC9246067 DOI: 10.14309/crj.0000000000000806

Abstract

BNT162b2 is a messenger RNA vaccine for the prevention of the novel coronavirus disease 2019 caused by severe acute respiratory syndrome coronavirus 2 infection. The widespread use of this vaccination has brought along several adverse events. We present a patient with newly diagnosed ulcerative colitis after BNT162b2 vaccine.

Case Reports : J Peripher Nerv Syst. 2022 Dec;27(4):325-329.
doi: 10.1111/jns.12509. Epub 2022 Aug 29.

Acute small fiber neuropathy after Oxford-AstraZeneca ChAdOx1-S vaccination: A report of three cases and review of the literature

Molly G Abbott, Zahra Allawi, Monika Hofer, Olaf Ansorge, Stefen Brady, Ricardo Fadic, Gustavo Torres, Ravi Knight, Margarita Calvo, David L H Bennett, Andreas C Themistocleous

PMID: 35962630 PMCID: PMC9538519 DOI: 10.1111/jns.12509

Abstract

Small fiber neuropathy usually presents with gradual and progressive chronic length-dependent pain. Acute small fiber neuropathy is rarely reported. Three patients with acute onset neuropathic pain after Oxford-AstraZeneca ChAdOx1-S vaccination are described. Two patients were identified at the Oxford University NHS Foundation Trust, Oxford, UK and one patient in Red de Salud UC Christus, Santiago, Chile. All patients underwent a clinical assessment that included a detailed neurological examination, laboratory investigations, nerve conduction studies, thermal threshold testing, and skin biopsy for intra-epidermal nerve fiber density. Patients seen in Oxford underwent MRI of the brain and spinal cord. Cerebrospinal analysis was not performed. Neuropathic symptoms (burning pain, dysaesthesias) developed in the hands and feet within 2 weeks of vaccination. On clinical examination, there was pinprick and thermal hyposensitivity in the area of neuropathic pain. Laboratory investigation, nerve conduction tests, sympathetic skin responses, and MRI showed no relevant abnormalities. Thermal

thresholds were abnormal and intra-epidermal nerve fiber density in the lower leg was reduced. In two cases symptoms persist after several months. Three cases of definite acute small fiber neuropathy after Oxford-AstraZeneca ChAdOx1-S vaccination are described. At follow up, neuropathic pain was present in two of the patients.

Case Reports : BMJ Case Rep. 2021 Sep 27;14(9):e245218. doi: 10.1136/bcr-2021-245218.

Acute ST-segment elevation myocardial infarction secondary to vaccine-induced immune thrombosis with thrombocytopaenia (VITT)

Luke Flower, Zdenek Bares, Georgina Santiapillai, Stephen Harris

PMID: 34580132 PMCID: PMC8477249 DOI: 10.1136/bcr-2021-245218

Abstract

A 40-year-old man with no cardiac history presented with central chest pain 8 days after receiving the ChAdOx1 nCov-19 vaccine against COVID-19. Initial blood tests demonstrated a thrombocytopaenia (24×109 µg/L) and a raised d-dimer (>110 000 µg/L), and he was urgently transferred to our tertiary referral central for suspected vaccine-induced immune thrombocytopaenia and thrombosis (VITT). He developed dynamic ischaemic electrocardiographic changes with ST elevation, a troponin of 3185 ng/L, and regional wall motion abnormalities. An occlusion of his left anterior descending coronary artery was seen on CT coronary angiography. His platelet factor-4 (PF-4) antibody returned strongly positive. He was urgently treated for presumed VITT with intravenous immunoglobulin, methylprednisolone and plasma exchange, but remained thrombocytopaenic and was initiated on rituximab. Argatroban was used for anticoagulation for his myocardial infarction while he remained thrombocytopaenic. After 6 days, his platelet count improved, and his PF-4 antibody level, troponin and d-dimer fell. He was successfully discharged after 14 days.

Case Reports : BMJ Case Rep. 2021 Sep 27;14(9):e245218. doi: 10.1136/bcr-2021-245218.

Acute T cell-mediated rejection after administration of the BNT162b2 mRNA COVID-19 vaccine in a kidney transplant recipient: a case report

Hye-Won Jang, Seongman Bae, Youngmin Ko, Seong Jun Lim, Hye Eun Kwon, Joo Hee Jung, Hae Yon Cho, Heounjeong Go, Hyunwook Kwon , Young Hoon Kim, Sung-Han Kim, Sung Shin

PMID: 35769849 PMCID: PMC9235455 DOI: 10.4285/kjt.21.0025

Abstract

The impact of the coronavirus disease 2019 (COVID-19) vaccination on humoral and cellular immunity in transplant recipients remains unknown. We report the case of a 78-year-old kidney transplant recipient who experienced acute T cell-mediated rejection after receiving the second dose of the BNT162b2 mRNA COVID-19 vaccine (Pfizer-BioNTech). She had no history of acute rejection throughout the 13 years after deceased donor kidney transplantation. Fifteen days after receiving the second dose of the BNT162b2 vaccine, the recipient visited our center with a mild headache and fever. Her serum creatinine level had increased from 0.61 to 4.95 mg/dL. Kidney allograft biopsy indicated acute T cell-mediated rejection (grade IB) with no pathologic evidence of antibody-mediated rejection. Anti-severe acute respiratory syndrome coronavirus 2 spike-immunoglobulin G and -immunoglobulin M measurements were weak positive and negative, respectively. Careful monitoring of kidney allograft function is vital for transplant recipients undergoing COVID-19 vaccination.

Case Reports: Rinsho Shinkeigaku. 2022 Mar 29;62(3): 184-189.

doi: 10.5692/clinicalneurol.cn-001656. Epub 2022 Mar 25.

A case of cerebral venous sinus thrombosis following the vaccination with Tozinameran

Takayuki Iwakami, So Yamada, Yoshifumi Ogasawara, Jaehyun Son

PMID: 35228459 doi: 10.5692/clinicalneurol.cn-001656

Abstract

A 31-year-old man visited our hospital due to experiencing severe headaches, vomiting, and hypesthesia in the left side of his body. He had no past illnesses and had had no severe headaches before. The symptoms started the day after receiving the coronavirus disease 2019 (COVID-19) vaccination with Tozinameran. An MRI revealed cerebral venous sinus thrombosis and high intensity (DWI & FLAIR) of the right thalamus. Anticoagulant therapy was initiated, and his symptoms improved gradually. The follow-up MRI showed recanalization in a large part of the occluded venous sinuses. Most of the coagulation tests were normal, except for slightly high value of D-dimer, and the polymerase chain reaction (PCR) test for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was negative. Further cases are needed to judge if there is some sort of relationship between the vaccination and the cerebral venous sinus thrombosis.

Case Reports: Brain Nerve. 2022 Aug; 74(8): 1025-1030.

doi: 10.11477/mf.1416202173.

A Patient Developing Guillain-Barré Syndrome After Receiving the BNT162b2 COVID-19 mRNA Vaccine

Namiko Oshibe, Masaya Honda, Michiaki Koga, Ryota Sato, Mariko Oishi, Takashi Kanda

PMID: 35941801 doi: 10.11477/mf.1416202173

Abstract

We report a 71-year-old woman who presented with paresthesia, progressive weakness, difficulty walking, diarrhea, and bladder dysfunction one week after she received the BNT162b2 COVID-19 vaccine. Her neurological signs and symptoms gradually worsened up to 27 days after onset, after which her weakness slowly improved without immunotherapy. Analysis of serial cerebrospinal fluid specimens showed gradually increasing protein levels. Results of a nerve conduction study suggested functional axonal disturbance. The clinical findings together with the monophasic clinical course were consistent with Guillain-Barré syndrome. Her previous history was negative for symptomatic infection. Serological and bacterial tests, including the presence of anti-glycolipid antibodies, were negative for prior infection. Few cases have been reported on the development of Guillain-Barré syndrome after the BNT162b2 vaccine. Our patient's syndrome was characterized by atypical proximal weakness of the dominant lower limb. (Received January 28, 2022; Accepted April 4, 2022; Published August 1, 2022).

Case Reports: Ned Tijdschr Geneeskd. 2021 Nov 4: 165: D6313.

A red and swollen arm after vaccination for covid-19

Dave De Mik, Linda J Schot, Bastiaan Privé

PMID: 34854640

Abstract

In this case report, we present a 41-year old male with a red rash on his arm 7 days post vaccination with the mRNA Moderna vaccine. While the patient received antibiotics for the suspicion of a cellulitis, this was actually a delayed type 4 local allergic reaction to the vaccine or a so called 'Covid arm'. This reaction occurs frequently, is usually self-limiting and a conservative treatment is recommended. Conflict of interest and financial support: none declared.

Laryngorhinootologie. 2021 Jul;100(7): 526-528.

doi: 10.1055/a-1501-0470. Epub 2021 May 11.

Acute facial paresis as a possible complication of vaccination against SARS-CoV-2

Gerd Fabian Volk, Anna-Maria Kuttenreich, Maren Geitner, Orlando Guntinas-Lichius

PMID: 33975372 doi: 10.1055/a-1501-0470

Abstract

Although acute facial nerve palsy (Bell's palsy) is explicitly mentioned in the information sheets for vaccines as a possible complication of vaccination against SARS-CoV-2, from our point of view the benefits of the vaccination clearly outweigh the possible risks. At most, if at all, a slightly increased risk can be derived from the previous Case Reports: . In general, the risk of acute facial palsy is described in association with many vaccinations. The risk, if any, does not appear to be a specific risk of SARS-CoV-2 vaccines. On the other hand, cases of acute facial palsy as symptom of a COVID-19 disease have also been described, so that the theoretical question arises as to the extent to which the vaccination may prevent rather than promote the occurrence of facial palsy. Ultimately, if acted quickly, acute facial paralysis can be treated well and its severity and sequelae cannot be compared with the severity of a COVID-19 disease and its possible long-COVID sequelae.

Review: Radiologe. 2021 Oct;61(10): 923-932.

doi: 10.1007/s00117-021-00887-3. Epub 2021 Jul 29.

Cerebral venous sinus thrombosis after COVID-19 vaccination : Neurological and radiological management

Uwe Walter, Erik Volmer, Matthias Wittstock, Alexander Storch, Marc-André Weber, Annette Großmann

PMID: 34327553 PMCID: PMC8320717 doi: 10.1007/s00117-021-00887-3

Abstract

Background: Vaccine-induced cerebral venous and sinus thrombosis (VI-CVST) is a rare complication in recipients of the adenovirus-vectored coronavirus disease 2019 (COVID-19) vaccine ChAdOx1 nCov-19 (Vaxzevria®; AstraZeneca).

Objectives: Development of a diagnostic and therapeutic standard.

Materials and methods: Analysis of clinical and basic research findings, expert opinions, and experience with our own cases.

Results: VI-CVST usually manifests on day 4-24 after vaccination, mostly in individuals aged < 60 years, and women. In the majority there is an immune pathogenesis caused by antibodies against platelet factor 4/polyanion complexes, leading to thrombotic thrombocytopenia which can result in severe, sometimes fatal, course. The cardinal symptom is headache worsening within days which, however, also can be of variable intensity. Other possible symptoms are seizures, visual disturbance, focal neurological deficits and signs of increased intracranial pressure. If VI-CVST is suspected, the determination of plasma D dimer level, platelet count, and screening for heparin-induced thrombocytopenia (HIT-2) are essential for treatment decision-making. Magnetic resonance imaging (MRI) with venous MR-angiography is the neuroimaging modality of choice to confirm or exclude VI-CVST. On T2* susceptibility-weighted MRI, the clot in the sinuses or veins

produces marked susceptibility artifacts ("blooming"), which also enables the detection of isolated cortical venous thromboses. MRI/MR-angiography or computed tomography (CT)/CT-angiography usually allow-in combination with clinical and laboratory findings-reliable diagnosis of VI-CVST.

Conclusions: The clinical suspicion of VI-CVST calls for urgent laboratory and neuroimaging workup. In the presence of thrombocytopenia and/or pathogenic antibodies, specific medications for anticoagulation and immunomodulation are recommended.

Case Reports: Ned Tijdschr Geneeskd. 2021 May 20: 165: D6055.

Confusion and abdominal pain after COVID-19 vaccination

K Beelen, J Schouten, M C de Boer, M Oostendorp, R T W Tijssen, A J Vlot

PMID: 34346657

Abstract

Background: Vaccine-induced immune thrombotic trombocytopenia (VITT) is a rare phenomenon, that may present with diffuse and atypical symptoms.

Case description: We present a case of 63 years old female patient with abdominal pain, confusion and tromboctytopenia. CT scan shows sinustrombosis and trombosis of the vena renalis. The diagnosis VITT was confirmed by a positive HIT test. After initiating treatment with immunoglobulines and a non-heparinoid anticoagulans, symptoms improved and platelet count increased.

Conclusion: This case illustrates that awareness in case of atypical symptoms and a history of vaccination is important to recognize this phenomenon.

Case Reports: Rev Neurol. 2023 Jun 16;76(12): 399-402.

doi: 10.33588/rn.7612.2022374.

Cryptogenic new-onset super-refractory status epilepticus following SARS-CoV-2 vaccination. A case report

D Villagrán-Sancho, A C Luque-Ambrosiani, C Mayorga-Morón, F J Gómez-Fernández, J Arzalluz-Luque, A Castela-Murillo, F J Hernández-Ramos, M D Jiménez-Hernández, A Palomino-García

PMID: 37303102 PMCID: PMC10478125

Abstract

Introduction: New-onset super-refractory status epilepticus (NOSRSE) is a neurological emergency characterised by the development of status epilepticus in a patient without epilepsy or any known prior neurological disease and with no clear structural, toxic or metabolic cause, which recurs after 24 hours of induced coma. The most common identifiable cause is inflammatory-autoimmune. Consequently, we present a case of NOSRSE related to SARS-CoV-2 vaccination as an opportunity to investigate the dysimmune origin of this pathology.

Case report: We report the case of a 40-year-old male who presented at the emergency department with fever and headache with no clear source of infection. His personal history included bacterial meningitis in childhood without any sequelae and protein S deficiency without treatment at the time, as well as vaccination with ChAdOx1 nCoV-19 21 days earlier. He was initially diagnosed with a urinary tract infection and treated with cefuroxime. Two days later, he was taken back to the emergency department with confusional symptoms and tonic-clonic seizures. He did not respond to midazolam and finally required sedation and orotracheal intubation for refractory status epilepticus. While in hospital, he required a number of lines of antiepileptic drugs, ketamine, a ketogenic diet, immunotherapy and plasmapheresis in order to

successfully limit NOSRSE. The aetiological study offered normal results for serology, antineuronal antibodies in serum and cerebrospinal fluid, transthoracic echocardiography, testicular ultrasound and computed tomographic angiography. Only the control MRI scan showed a diffuse and bilateral alteration of the right hemispheric cortex and thalamic pulvinar as the only finding.

Conclusion: It is crucial to report suspected adverse reactions associated with SARS-CoV-2 vaccination, thereby allowing continued monitoring of the risk/benefit ratio of vaccination.

Case Reports: Hautarzt. 2022 Jun;73(6): 488-490.

doi: 10.1007/s00105-022-04986-7. Epub 2022 Mar 31.

Delayed local reaction with subcutaneous infiltration after vaccination with mRNA-1273-a previously undescribed reaction pattern of COVID arm

Lukas Kofler, Stephan Forchhammer

PMID: 35357514 PMCID: PMC8968112 doi: 10.1007/s00105-022-04986-7

Abstract

The mRNA-1273 vaccine against SARS-CoV 2 was approved in Europe in early 2021. Meanwhile, there are a number of Case Reports: of delayed local reactions after vaccination ("COVID arm"). In these reports, superficial lymphocytic infiltrates were described, but no involvement of the deep dermis or subcutis. We report the case of a healthy 32-year-old man with involvement of the deep dermis and subcutis after vaccination with mRNA-1273. This case is the first to show a delayed T cell mediated reaction with a deep pattern of reaction, with the dermal perivascular and periadnexal infiltrate extending from the papillary dermis into the deep reticular dermis and subcutis. The infiltrate was predominantly lymphocytic with an admixture of histiocytes and neutrophil granulocytes, scattered mast cells and sparse eosinophil granulocytes.

Case Reports: Neurologia. 2021 Jul-Aug;36(6): 451-461.

doi: 10.1016/j.nrl.2021.05.001. Epub 2021 May 6.

Diagnostic and treatment recommendations from the FACME ad-hoc expert working group on the management of cerebral venous sinus thrombosis associated with COVID-19 vaccination

PMID: 34049738 PMCID: PMC8101796 doi: 10.1016/j.nrl.2021.05.001

Abstract

Introduction: Cases of cerebral venous sinus thrombosis have been reported in individuals vaccinated against COVID-19 with non-replicating adenoviral vector vaccines. We issue our recommendations on the diagnosis and management of patients presenting this complication.

Method: The multidisciplinary working group, led by the Spanish Federation of Medical and Scientific Associations and including representatives of several scientific societies, reviewed the available evidence from the literature and reports of the European Medicines Agency. We establish a definition for suspected cases and issue diagnostic and treatment recommendations regarding vaccine-induced immune thrombotic thrombocytopaenia.

Results: We define suspected cases as those cases of cerebral venous sinus thrombosis occurring between 3 and 21 days after the administration of non-replicating adenoviral vector vaccines, in patients with a platelet count below 150,000/μL or presenting a decrease of 50% with respect to the previous value. Findings suggestive of vaccine-induced immune thrombotic thrombocytopaenia include the presence of antibodies to platelet factor 4, D-dimer levels 4 times greater than the upper limit of normal, and unexplained thrombosis. The recommended treatment includes intravenous administration of non-specific human

immunoglobulin or alternatively plasmapheresis, avoiding the use of heparin, instead employing argatroban, bivalirudin, fondaparinux, rivaroxaban, or apixaban for anticoagulation, and avoiding platelet transfusion.

Conclusions: Non-replicating adenoviral vector vaccines may be associated with cerebral venous sinus thrombosis with thrombocytopaenia; it is important to treat the dysimmune phenomenon and the cerebral venous sinus thrombosis.

Case Reports: Rinsho Ketsueki. 2023;64(4): 277-282.

doi: 10.11406/rinketsu.64.277.

Epstein-Barr virus-associated lymphoproliferative disorders after BNT162b2 mRNA COVID-19 vaccination

Akane Tanaka, Takeharu Kawaguchi, Ken-Ichi Imadome, Satoru Hara

PMID: 37121772 doi: 10.11406/rinketsu.64.277

Abstract

Epstein-Barr virus-associated lymphoproliferative disorders (EBV-LPD) is a rare disease characterized by persistent or recurrent inflammation accompanied by EBV infection of T or NK cells that is not self-limiting, and it is fatal, if untreated. After receiving the first dose of the BNT162b2 mRNA COVID-19 vaccine, a 79-year-old male presented to the hospital with a 2-week history of fever. Laboratory results indicated pancytopenia, elevated liver transaminase levels, hyperferritinemia, and hypofibrinogenemia. Computed tomography revealed hepatosplenomegaly, but lymphadenopathy was not observed. A bone marrow biopsy, a random skin biopsy, and a liver biopsy revealed no malignancy, but an infectious evaluation revealed EBV viremia (5.19 Log IU/ml). Flow cytometry and RT-PCR revealed that the EBV genome was localized in NK cells, suggesting the diagnosis of EBV-NK-LPD. We administered prednisolone, intravenous immunoglobulin, and etoposide, but the EBV-DNA load failed to decrease, and he died 2 months later. Recently, Case Reports: of COVID-19 vaccination-related hemophagocytic lymphohistiocytosis have been published. Although the mechanisms and risk factors for EBV-LPD after BNT162b2 mRNA COVID-19 vaccination remain unknown, it is important to note the possibility of reactivation of EBV after COVID-19 vaccination to initiate early and targeted therapy.

Case Reports: Hautarzt. 2022 Jan;73(1): 68-70.

doi: 10.1007/s00105-021-04911-4. Epub 2021 Oct 21.

Erythema multiforme following COVID-19 vaccination (BNT162b2)

K Wunderlich, T Dirschka

PMID: 34676438 PMCID: PMC8530369 doi: 10.1007/s00105-021-04911-4

Abstract

We report a case of a patient with erythema multiforme major following COVID-19 (coronavirus disease 2019) vaccination. Lesions on skin and mucous membranes developed 48 h after the second dose of the mRNA-vaccine BNT162b2 (Tozinameran, Comirnaty®). Under the application of external glucocorticoids complete resolution was achieved within 3 weeks.

Case Reports: Rev Neurol. 2022 Oct 16;75(8): 247-250.

doi: 10.33588/rn.7508.2022138.

Guillain-Barre syndrome and thrombocytopenia after SARS-CoV-2 vaccination with Moderna. A case report

C Lázaro, A Llauradó, D Sánchez-Tejerina, A Cabirta, C Carpio, J Sotoca, M Salvadó, N Raguer, J Restrepo, R Juntas

PMID: 36218255 PMCID: PMC10280725 doi: 10.33588/rn.7508.2022138

Abstract

Introduction: The massive vaccination against the SARS-CoV-2 virus has demonstrated to be one of the major measures for the reduction of the morbidity and mortality that this virus causes. However, during the last months the administration of the vaccine has been also associated with some rare, but life-threatening, adverse effects.

Case report: In this article we describe the case of a patient that developed a Guillain-Barre syndrome and an Idiopathic thrombocytopenic purpura nine days after the vaccination with the third dose for the SARS-CoV-2 virus (Moderna). He had received previously two doses of the AstraZeneca vaccine. Moreover, the patient was positive for auto-antibodies anti-SSA/Ro60 and auto-antibodies IgG anti-GM1 and IgG anti-GM3.

Discussion: Even though it is not possible to stablish a clear relation of causality between the administration of the vaccine booster for SARS-CoV-2 and the diseases developed by the patient, the association of two concomitant autoimmune processes is remarkable. As well as the positivity for the auto-antibodies anti-SSA/Ro60, which have been described in the bibliography in cases of SARS-CoV-2 infection.

Case Reports: Rinsho Ketsueki. 2022;63(11): 1513-1519.

doi: 10.11406/rinketsu.63.1513.

Hemophagocytic lymphohistiocytosis following mRNA-1273 COVID-19 vaccination

Shogo Matsui, Masahiro Tokunaga, Shinichi Yoshikawa, Chihiro Hasegawa, Atsushi Kondo, Nobuko Nishiura, Shinya Inoue, Nobuhiko Tominaga, Tetsuo Maeda

PMID: 36476790 doi: 10.11406/rinketsu.63.1513

Abstract

A 34-year-old man with no medical history presented with fever 4 days after receiving the first dose of mRNA-1273 coronavirus disease 2019 (COVID-19) vaccine. He had no prior clinical evidence of severe acute respiratory syndrome coronavirus 2 infection and was negative for serial polymerase chain reaction testing. Ten days after vaccination, he was referred to our hospital because of no response to antibiotics and the emergence of neutropenia, thrombocytopenia, and liver dysfunction. Blood tests also showed elevated serum ferritin and plasma soluble interleukin-2 receptors. Serological and PCR testing excluded active infections of cytomegalovirus, Epstein-Barr virus, and hepatitis viruses. Blood culture yielded no growth. Computed tomography revealed mild hepatosplenomegaly and porta hepatis lymphadenopathy but no focus on infection. Bone marrow aspiration demonstrated hemophagocytosis but no infiltrating lymphoma cells. Immediately, 2-mg/kg intravenous methylprednisolone was commenced based on the presumptive diagnosis of hemophagocytic lymphohistiocytosis (HLH), leading to the rapid and durable improvement of his symptoms and laboratory data. Later, without other causes triggering hemophagocytosis, and with the close link between vaccination and disease onset, the final diagnosis of vaccination-induced secondary HLH was made. HLH after COVID-19 vaccination, though extremely rare, can occur regardless of the vaccine type. Therefore, clinicians should recognize and deal with this occasionally fatal adverse event.

J Fr Ophtalmol. 2022 Nov;45(9): 1000-1003.

doi: 10.1016/j.jfo.2022.09.004. Epub 2022 Sep 23.

Herpes Zoster Ophthalmicus after Pfizer BNT162b2 and Moderna mRNA-1273 vaccination in two young and immunocompetent patients

M A Amblard, E Costantini, G Hayek, X Ricaud

PMID: 36155145 PMCID: PMC9499740 doi: 10.1016/j.jfo.2022.09.004

Abstract

Coronavirus disease 19 (COVID-19) was first observed in Wuhan, China. The disease is caused by a virus (SARS-CoV-2), which spread around the world within a matter of weeks, leading to a large number of deaths. While the health crisis was managed on the ground, the scientific community focused on finding a means to stop it. Vaccine candidates such as the mRNA vaccines (Pfizer BTN162b2 and Moderna mRNA-1273), started to emerge. As these treatments came on the market recently, there is still concern about potential side effects, among them, Herpes Zoster Ophthalmicus (HZO)

Rinsho Ketsueki. 2021;62(11): 1639-1642.

doi: 10.11406/rinketsu.62.1639.

Immune thrombocytopenia after BNT162b2 mRNA COVID-19 vaccination

Ayako Matsumura, Kengo Katsuki, Masahiro Akimoto, Takayuki Sakuma, Yuki Nakajima, Takuya Miyazaki, Shin Fujisawa, Hideaki Nakajima

PMID: 34866090 doi: 10.11406/rinketsu.62.1639

Abstract

Coronavirus disease 2019 (COVID-19) has emerged as a global pandemic until today, but treatment options remain limited. COVID-19 vaccination is expected to decrease the number of patients with COVID-19 worldwide. In Japan, two types of mRNA COVID-19 vaccine, BNT162b2 (Pfizer/BioNTech) and mRNA-1273 (Moderna), have been approved and administered. However, their side effects remain poorly elucidated. This paper presents two cases of immune thrombocytopenia (ITP) after BNT162b2 mRNA COVID-19 vaccination. Whether or not ITP is triggered by the vaccination or not is difficult to identify. Further investigation with a large number of cases is warranted to clarify the side effects of BNT162b2 mRNA COVID-19 vaccination.

Case Reports: Nephrol Ther. 2022 Jul;18(4): 287-290.

doi: 10.1016/j.nephro.2021.10.006. Epub 2021 Dec 8.

Leukocytoclastic vasculitis and acute renal failure following inactivated SARS-CoV-2 vaccine

Soumia Missoum, Mourad Lahmar, Ghalia Khellaf

PMID: 35074300 PMCID: PMC8651508 doi: 10.1016/j.nephro.2021.10.006

Abstract

SARS-CoV-2 vaccines are being administered worldwide. Most side effects are mild and self-limiting with few reported cases of severe reactions. We report a case of leukocytoclastic vasculitis with acute kidney failure following aninactivated SARS-CoV-2 vaccine, unique for its dramatic visual presentation and its rapid response to treatment. This is the case of a 58years-old man presenting with fever, arthralgias and vascular purpura on his limbs associated with acute kidney failure requiring hemodialysis nine days after anti-COVID-19 vaccination. Skin biopsy revealed a leukocytoclastic vasculitis and a renal biopsy showed an acute tubulointerstitial nephritis. The vascular purpura resolved 7days after initiating treatment with prednisone but the patient remains in chronic renal failure. The analysis and investigation of the complications and adverse events induced by anti-COVID-19 vaccines could increase our understanding of the underlying pathogenesis.

Wien Med Wochenschr. 2023 May;173(7-8): 192-197.

doi: 10.1007/s10354-022-00959-6. Epub 2022 Aug 30.

Myocarditis following mRNA vaccine

Anna Formanek, Thomas Wagner, Stephan Newrkla, Herbert Kurz

PMID: 36040634 PMCID: PMC9425779 doi: 10.1007/s10354-022-00959-6

Abstract

This article presents the case of a 15-year-old adolescent presenting with myocarditis 4 days after receiving the 2nd dose of BNT162b2 mRNA vaccine (Comirnaty®) with no other identifiable cause. The main clinical symptom at presentation was chest pain. We found an elevated level of Troponin I with preserved left ventricular systolic function. The cardiac MRI showed a clear pathologic result. With symptomatic therapy and strict bed rest, the symptoms resolved quickly and revealed a mild course.

Case Reports: Pan Afr Med J. 2021 Dec 21: 40: 244.

doi: 10.11604/pamj.2021.40.244.31498. eCollection 2021.

Peripheral facial palsy following COVID-19 vaccination: a case report

Smail Kharoubi

PMID: 35233264 PMCID: PMC8831221 doi: 10.11604/pamj.2021.40.244.31498

Abstract

We conducted a clinical study of a patient with no particular medical history and without a personal or family history presenting with right facial asymmetry occurred two days after COVID-19 vaccination (recombinant vaccine). Full clinical examination, laboratory assessments and magnetic resonance imaging (MRI) were normal, suggesting the diagnosis of post-vaccine peripheral facial palsy (COVID-19). The diagnosis of peripheral facial palsy following COVID-19 vaccination with complete recovery was retained.

Case Reports: Dermatologie (Heidelb). 2022 Aug;73(8): 634-637.

doi: 10.1007/s00105-022-04972-z. Epub 2022 Mar 16.

Pityriasis rubra pilaris after COVID-19 vaccination: causal relationship or coincidence?

A C Bramhoff, U Wesselmann, S T Bender, A V Berghoff, S C Hofmann, G Balakirski

PMID: 35296923 PMCID: PMC8926091 doi: 10.1007/s00105-022-04972-z

Abstract

Numerous cutaneous side effects associated with COVID-19 vaccines have been described since their clinical approval. These include, among others, injection site reactions, urticarial, maculopapular and pityriasiform rashes or temporary exacerbations of a pre-existing chronic inflammatory skin disease. Herein we report about three cases of pityriasis rubra pilaris that occurred for the first time in close temporal relationship with the administration of a COVID-19 vaccine.

Case Reports: G Ital Nefrol. 2022 Dec 21;39(6): 2022-vol6.

Possible vaccine-induced immune thrombotic thrombocytopenia in a patient with diabetes and chronic kidney disease or random association?

Stefania Comolli, Lucia Del Vecchio, Valeria De Micheli, Benedetta Tucci, Marco D'Amico, Giordano Fumagalli, Beniamina Gallelli, Francesca Gervasi, Nicoletta Mezzina, Mariagiulia Tettamanti, Gianvincenzo Melfa

PMID: 36655834

Abstract

We report the case of a 75-year-old man who developed acute myocardial infarction 12 hours after the first dose of ChAdOx1 nCov-19 vaccine. The event was associated with a transient decrease of platelet count and the detection of anti-PF4 antibodies approximately 45 days after the event. Vaccine-induced thrombotic thrombocytopenia (VITT) is characterized by the onset of venous or arterial thrombosis in temporal relationship to the administration of anti-Sars-Cov-2 viral vector vaccines (ChAdOx1 nCov-19 and Ad26.COV2.S), thrombocytopenia and the production of anti-PF4 antibodies. It occurs mainly at a young age, even if the median age is 54 years; it is often associated with thrombosis in atypical sites, such as the cerebral sinus. Our reported case does not present all the diagnostic criteria of VITT. However, the close temporal relationship between ChAdOx1 nCov-19 vaccine administration, thrombosis, and concomitant anti-PF4 antibodies positivity makes the case suggestive of a possible slight form of VITT.

Dermatologie (Heidelb). 2023 Aug;74(8): 614-617.

doi: 10.1007/s00105-023-05160-3. Epub 2023 May 26.

Recurrent livedo-like skin lesions following a vector-based COVID-19 vaccine

Teresa Kränke, Urban Cerpes, Franz Legat, Emad Arbab, Birger Kränke

PMID: 37237145 PMCID: PMC10215053 doi: 10.1007/s00105-023-05160-3

Abstract

Starting in 2020, the global health system faced unprecedent challenges due to the coronavirus disease 2019 (COVID-19) pandemic and the consequences are still felt. All the more fascinating and of particular importance for health policy was the development of potent vaccines within about one year by several research groups after the first reports of COVID-19 infections. To date, three types of COVID-19 vaccines are available, i.e., messenger RNA-based vaccines, adenoviral vector vaccines, and inactivated whole-virus vaccines. We report a woman who developed reddish, partially urticarial skin lesions on her right arm and flank shortly after the first dose with the corona vaccination from AstraZeneca/Oxford (ChAdOx1). The lesions were transient, however reoccurred in loco and at other locations over several days. The clinical presentation was unusual and was correctly assigned due to the clinical course.

Case Reports: Ned Tijdschr Geneeskd. 2022 May 2: 166: D6665.

Serious shoulder injury after COVID-19 vaccination

Annick M van der Kraats, Simone Munk, Freek Hollman, Heleen M Staal, F O Okke Lambers Heerspink

PMID: 35499697

Abstract

Background: Since January 2021, over 24 million COVID-19 vaccines have been administered. Rarely vaccination in the deltoid muscle may lead to complications in the shoulder, called SIRVA (shoulder injury related to vaccine administration). General knowledge on SIRVA amongst doctors and other healthcare workers is lacking. However, due to the large amount of vaccinations which have been administered over the last year, SIRVA is seen more often.

Case report: In this report, two cases of SIRVA due to septic arthritis and a shoulder abscess after administration of a COVID-19 vaccination, are described.

Conclusion: SIRVA should be considered in case of shoulder complaints which persist longer than 48 hours after vaccination. Timely diagnosis and treatment by either the general practitioner or orthopaedic surgeon should be conducted to prevent long-term damage to the shoulder joint. Use of the correct vaccination technique is important to prevent the occurrence of SIRVA.

Case Reports: Rinsho Shinkeigaku. 2022 Jun 24;62(6): 487-491.

doi: 10.5692/clinicalneurol.cn-001741. Epub 2022 May 28.

Thrombosis with Thrombocytopenia Syndrome after ChAdOx1 nCoV-19 vaccination

Mari Takatsuki, Toshihiko Araki, Akira Kanno, Atsushi Yasumoto, Eriko Morishita, Hiroshi Shiota

PMID: 35644585 doi: 10.5692/clinicalneurol.cn-001741

Abstract

A 48-year-old Japanese man who had no previous medical history received his first dose of the ChAdOx1 nCoV-19 vaccine. Ten days after the vaccine administration, he developed a headache. Laboratory results indicated throm-bocytopenia and DIC. A head CT revealed microbleeding in the left parietal lobe. Contrast-enhanced CT showed thrombus in the left transverse sinus and left sigmoid sinus. A brain MRI demonstrated venous hemorrhagic infarction and subarachnoid hemorrhages in the left parietal lobe, and whole-body enhanced CT also revealed portal vein embolism and renal infarction. He was diagnosed with thrombosis with thrombocytopenia syndrome, and was treated according to the guideline. He has been recovering with the treatments. This is the first reported case of TTS associated with the ChAdOx1 nCoV-19 vaccine in Japan.

Tuberk Toraks. 2023 Jun;71(2): 166-175.

doi: 10.5578/tt.20239920.

Vaccination approach in patients with an allergic reaction to COVID-19 vaccines or at risk of developing allergic reactions

Şeyma Özden, Fatma Merve Tepetam, Özge Atik

PMID: 37345399 PMCID: PMC10795276 doi: 10.5578/tt.20239920

Abstract

Vaccination approach in patients with an allergic reaction to COVID-19 vaccines or at risk of developing allergic reactions

Introduction: There is consensus that patients at risk of developing an allergic reaction to COVID-19 vaccines should be evaluated by an immunologist-allergist to determine whether vaccination should be recommended. We wanted to share our experiences in the management of these high-risk patients, from diagnostic tests in allergological evaluation to the vaccination process.

Materials and Methods: Our retrospective cross-sectional study included patients who had previously developed an allergic reaction to COVID-19 vaccines or drugs and therefore were referred to our allergy and immunology clinic. Prick and intradermal tests were performed on all patients with methylprednisolone acetate (Depo-Medrol®, Pfizer) 40 mg/mL containing polyethylene Glycol (PEG) and triamcinolone acetonide (Kenacort®, Deva) 40 mg/mL containing polysorbate 80. While vaccination with desensitization was recommended for all patients with positive skin tests, split-dose vaccination was recommended for patients with negative skin tests. After explaining the risks and benefits, the choice of the vaccine (Pfizer/BioNTech or Sinovac/ CoronoVac) was left to the patients' discretion.

Results: A total of 41 patients, 10 males, and 31 females, with a mean age of 42.37 ± 14.177 years were included. Eighteen patients with a

history of allergy after COVID-19 vaccines were analyzed according to the type of reaction and type of vaccine administered (Pfizer/BioNTech/Coronovac; Anaphylaxis: 4/1, Urticaria: 11/2). Moreover, there was a history of drug allergy in 23 patients who had not been vaccinated before. Skin tests with PEG were positive in a total of seven patients while skin tests with polysorbate 80 were negative in all patients. No allergic reaction developed in seven patients who underwent desensitization and in 34 patients who received a split dose.

Conclusion: Considering the potentially life-saving benefits of vaccination in a global pandemic environment, it is a safe and effective method to administer vaccines to at-risk patients using desensitization or split dosing techniques, based on their sensitivity status determined through a PEG skin test. This approach allows for the avoidance of preventing access to vaccines, while still ensuring the safety of patients.

Case Reports: Rinsho Ketsueki. 2022;63(10): 1379-1385.

doi: 10.11406/rinketsu.63.1379.

Warm autoimmune hemolytic anemia and IgM-monoclonal gammopathy following BNT162b2 COVID-19 vaccine in a patient with splenic marginal zone lymphoma

Nobuhiro Sogabe, Masatomo Kuno, Yu Nakagama, Yosuke Makuuchi, Naonori Harada, Teruhito Takakuwa, Hiroshi Okamura, Asao Hirose, Mitsutaka Nishimoto, Yasuhiro Nakashima, Hideo Koh, Mika Nakamae, Yasutoshi Kido, Hirohisa Nakamae, Masayuki Hino

PMID: 36351643 doi: 10.11406/rinketsu.63.1379

Abstract

There is currently no evidence that a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) mRNA vaccine might be associated with the development of autoimmune hemolytic anemia or disease progression in patients with mature B-cell neoplasm. Our patient was a 71-year-old man with indolent mature B-cell neoplasm who had been monitored for many years without treatment. After receiving the second dose of the BNT162b2 mRNA COVID-19 vaccine, he developed severe warm autoimmune hemolytic anemia. Although steroid therapy improved his anemia, he continued to develop IgM-monoclonal gammopathy, renal insufficiency, and splenomegaly. He was diagnosed with splenic marginal zone lymphoma after undergoing splenectomy. The splenectomy improved the patient's symptoms. We assessed his SARS-CoV-2 specific antibody response, but the patient's serologic response to the vaccine was impaired. In patients with mature B-cell neoplasm, a non-specific immune response after vaccination might be associated with paraneoplastic syndromes.

Case Reports: J Cardiol Cases. 2022 Aug;26(2): 108-110.

doi: 10.1016/j.jccase.2022.03.012. Epub 2022 Apr 26.

A 17-year-old male with acute myocarditis following mRNA-1273 vaccination in Japan

Ayumi Iwamuro, Tomoki Sasa, Takafumi Kawai, Mamoru Taguchi, Masayasu Izuhara, Takashi Uegaito, Keisuke Shioji

PMID: 35495897 PMCID: PMC9040371 doi: 10.1016/j.jccase.2022.03.012

Abstract

Vaccinations are the main tool being used to control the COVID-19 pandemic. When the Japanese Ministry of Health approved the Moderna mRNA-1273 vaccination in May 2021, it was limited to patients over 18 years old; however, using the additional data of efficacy and safety from clinical trials, vaccination was approved for 12- to 17-year-olds in Japan in July 2021. A previous study reported that myocarditis after the mRNA-1273 vaccination was more prevalent in young men; however, no patients under 18 years old with myocarditis diagnosed by cardiovascular magnetic resonance (CMR) findings after mRNA-1273 vaccination have been reported in Japan. In the present case, a 17-year-old healthy male developed arthralgia and had fever on the day of the second mRNA-1273 vaccination for severe acute respiratory syndrome coronavirus 2. Three days after the vaccination, the patient felt severe chest pain with broad ST elevations on electrocardiography and troponin T elevations. Symptoms and findings rapidly improved; however, on CMR, myocarditis remained. Thus, it is necessary to be vigilant of potential acute myocarditis in young men following mRNA-1273 vaccination.

Learning objective: Although it is very rare, acute myocarditis after mRNA-1273 (Moderna) vaccination developed within 3-5 days following the second dose of the vaccine.Most reported cases were mild or moderate in severity, but there were cases of cardiogenic shock. We need to be vigilant of acute myocarditis in young men following mRNA-1273 vaccination.

Case Reports: Chest. 2021 Sep;160(3): e289-e293

doi: 10.1016/j.chest.2021.04.055.

A 24-Year-Old Man With Hemoptysis Found to Have a Chest Mass and Contralateral Axillary Lymphadenopathy

Austin D Gable, Stephen M Hughes, Russel J Miller

PMID: 34488970 PMCID: PMC8413841 doi: 10.1016/j.chest.2021.04.055

Abstract

A 24-year-old man, never smoker, with no medical or surgical history, not currently on medications, presented to the ED with a second episode of gross hemoptysis, 4 months after an initial episode that had not previously been evaluated. He described the current episode of hemoptysis as "enough to fill the sink"; however, he did not further quantify. He has no history of recurrent epistaxis, hematemesis, or other evidence of clotting disorder. He denied any fevers, chills, night sweats, or recent travel. He denied any sick contacts and has no history of TB exposure or risk factors. The patient denied any shortness of breath, wheezing, or chest pain. He had no lower extremity pain or swelling. He routinely exercises and generally lives a healthy lifestyle. He is a health care worker who has not routinely worked with patients infected with SARS-CoV-2, although he received his second (of two) COVID-19 vaccines 4 days before presentation.

COVID-19 Vaccination

Abdulaziz Alsubaie, Abdulmajeed Alshabanat, Abdulrahman Almizel, Mohammed Omair, Rahaf Alodaini

PMID: 37492803 PMCID: PMC10365908 doi: 10.1155/2023/9505383

Abstract

IgA vasculitis is a common type of vasculitis that is generally triggered by infectious causes. Vaccines have been reported as a trigger as well. Herein, we report a case of a young man who is previously healthy and who developed IgA vasculitis after the first dose of the COVID-19 mRNA vaccine Pfizer-BioNTech. The patient's symptoms were mainly skin and joint without renal or other system involvement. The patient had an excellent outcome with complete resolution after treatment with steroid tapering and azathioprine as a steroid-sparing agent over 6 months.

Case Reports: Chest. 2021 Sep;160(3): e289-e293.

doi: 10.1016/j.chest.2021.04.055.

A 24-Year-Old Man With Hemoptysis Found to Have a Chest Mass and Contralateral Axillary Lymphadenopathy

Austin D Gable, Stephen M Hughes, Russel J Miller

PMID: 34488970 PMCID: PMC8413841 doi: 10.1016/j.chest.2021.04.055

Abstract

A 24-year-old man, never smoker, with no medical or surgical history, not currently on medications, presented to the ED with a second episode of gross hemoptysis, 4 months after an initial episode that had not previously been evaluated. He described the current episode of hemoptysis as "enough to fill the sink"; however, he did not further quantify. He has no history of recurrent epistaxis, hematemesis, or other evidence of clotting disorder. He denied any fevers, chills, night sweats, or recent travel. He denied any sick contacts and has no history of TB exposure or risk factors. The patient denied any shortness of breath, wheezing, or chest pain. He had no lower extremity pain or swelling. He routinely exercises and generally lives a healthy lifestyle. He is a health care worker who has not routinely worked with patients infected with SARS-CoV-2, although he received his second (of two) COVID-19 vaccines 4 days before presentation.

Case Reports: Chest. 2022 Aug;162(2): e85-e88.

doi: 10.1016/j.chest.2022.03.004.

A 54-Year-Old Man With Migratory Pulmonary Consolidation and Progressive Dyspnea

Juei-Yang Ma, Cheng-Hao Chuang

PMID: 35940668 doi: 10.1016/j.chest.2022.03.004

Abstract

A 54-year-old man with chronic hepatitis B was admitted to the hospital with progressive dyspnea on exertion. He reported experiencing intermittent fever, dyspnea on exertion, and relapsing pleuritic chest pain starting 6 months prior, after his first dose of the ChAdOx1 nCoV-19 vaccine. In the past 2 months, he had been admitted to the hospital twice and diagnosed with recurrent pneumonia. Under antibiotic treatment, his dyspnea and low-grade fever demonstrated waxing and waning behaviors. Migratory pulmonary consolidation, which moved from the left lower lobe to the right middle lobe, was identified and diagnosed as relapsing pneumonia. Chest CT scan was performed in a previous admission 2 months earlier that revealed multifocal peripheral consolidation in the left lower lobe and right middle lobe. His occupation required the maintenance of overall fitness, and he denied immunosuppressant use, illicit drug abuse, cigarette smoking, suspicious travel, suspicious contact, or family history. No recent history of trauma, surgery, or air travel was reported.

Case Reports: Am J Case Rep. 2021 Jun 12: 22: e932946.

doi: 10.12659/AJCR.932946.

A 59-Year-Old Woman with Extensive Deep Vein Thrombosis and Pulmonary Thromboembolism 7 Days Following a First Dose of the Pfizer-BioNTech BNT162b2 mRNA COVID-19 Vaccine

Juhaina Salim Al-Maqbali, Sara Al Rasbi, Masoud Salim Kashoub, Asaad Mohammed Al Hinaai, Hatem Farhan, Bader Al Rawahi, Abdullah M Al Alawi

PMID: 34117206 PMCID: PMC8212841 doi: 10.12659/AJCR.932946

Abstract

Background: The COVID-19 pandemic is an ongoing cause of the current global healthcare crisis. Several vaccines were approved for use by emergency vaccination campaigns worldwide. At present, there are very few reports of COVID-19 vaccine-induced immune-thrombotic thrombocytopenia, a variant of heparin-induced thrombocytopenia (HIT), in comparison to the massive number of vaccinated people worldwide.

Case Report: A 59-year-old woman presented to the Emergency Department with a 3-day history of sudden-onset left leg pain 7 days after receiving her first dose of BNT162b2 mRNA COVID-19 (Pfizer-BioNTech). She was diagnosed with deep vein thrombosis (DVT) and pulmonary embolism (PE) and found to have a positive HIT screen with optical density (OD) of 0.6 via ELISA test. She was hospitalized for 4 days and discharged home with an oral anticoagulant (rivaroxaban).

Conclusions: This case report describes a possible link between BNT162b2 mRNA COVID-19 (Pfizer-BioNTech) vaccination and thromboembolism. However, further data are needed to support such an association.

A case of myopericarditis recurrence after third dose of BNT162b2 vaccine against SARS-CoV-2 in a young subject: link or causality?

Massimo Mapelli, Nicola Amelotti, Daniele Andreini, Andrea Baggiano, Jeness Campodonico, Massimo Moltrasio, Benedetta Majocchi, Valentina Mantegazza, Carlo Vignati, Valentina Ribatti, Valentina Catto, Rita Sicuso, Marco Moltrasio, Gianluca Pontone, Piergiuseppe Agostoni

PMID: 35602257 PMCID: PMC9117911 doi: 10.1093/eurheartj/suac018

Abstract

The rate of post-vaccine myocarditis is being studied from the beginning of the massive vaccination campaign against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Although a direct cause-effect relationship has been described, in most cases, the vaccine pathophysiological role is doubtful. Moreover, it is not quite as clear as having had a previous myocarditis could be a risk factor for a post-vaccine disease relapse. A 27-year-old man presented to the emergency department for palpitations and pericardial chest pain radiated to the upper left limb, on the 4th day after the third dose of BNT162b2 vaccine. He experienced a previous myocarditis 3 years before, with full recovery and no other comorbidities. Electrocardiogram showed normal atrioventricular conduction, incomplete right bundle branch block, and diffuse ST-segment elevation. A cardiac echo showed lateral wall hypokinesis with preserved ejection fraction. Troponin-T was elevated (160 ng/L), chest X-ray was normal, and the SARS-CoV-2 molecular buffer was negative. High-dose anti-inflammatory therapy with ibuprofen and colchicine was started; in the 3rd day high-sensitivity Troponin I reached a peak of 23000 ng/L. No heart failure or arrhythmias were observed. A cardiac magnetic resonance was performed showing normal biventricular systolic function and

abnormal tissue characterization suggestive for acute non-ischaemic myocardial injury (increased native T1 and T2 values, increased signal intensity at T2-weighted images and late gadolinium enhancement, all findings with matched subepicardial distribution) at the level of mid to apical septal, anterior, and anterolateral walls. A left ventricular electroanatomic voltage mapping was negative (both unipolar and bipolar), while the endomyocardial biopsy showed a picture consistent with active myocarditis. The patient was discharged in good clinical condition, on bisoprolol 1.25 mg, ramipril 2.5 mg, ibuprofen 600 mg three times a day, colchicine 0.5 mg twice a day. We presented the case of a young man with history of previous myocarditis, admitted with a non-complicated acute myopericarditis relapse occurred 4 days after SARS-CoV-2 vaccination (3rd dose). Despite the observed very low incidence of cardiac complications following BNT162b2 administration, and the lack of a clear proof of a direct cause-effect relationship, we think that in our patient this link can be more than likely. In the probable need for additional SARS-CoV-2 vaccine doses in the next future, studies addressing the risk-benefit balance of this subset of patient are warranted. We described a multidisciplinary management of a case of myocarditis recurrence after the third dose of SARS-CoV-2 BNT162b2 vaccine.

Case Reports: Vaccines (Basel). 2023 Jul 11;11(7): 1228.

doi: 10.3390/vaccines11071228.

A Case of Acquired Aplastic Anemia after Severe Hepatitis- Probably Induced by the Pfizer/BioNTech Vaccine: A Case Report and Review of Literature

Zahra Kmira, Khirallah Sabrine, Guermazi Monia, Akkari Imen, Chiba Dorra, Bannour Rania, Fathallah Neila, Bouteraa Walid, Zaier Monia, Ben Youssef Yosra, Regaieg Haifa, Khelif Abderrahim

PMID: 37515043 PMCID: PMC10384467 doi: 10.3390/vaccines11071228

Abstract

Introduction: An important but rare adverse effect of vaccines is their association with autoimmune events, including hepatitis and aplastic anemia (AA). In this paper, we report a case of hepatitis followed by AA that occurred after the COVID-19 vaccine was administered.

Case Report: This paper focuses on a 30-year-old female who presented with acute hepatitis three weeks after receiving the second dose of the coronavirus Pfizer/BioNTech vaccine. After an extensive diagnostic evaluation was conducted that did not discover a specific cause, the Pfizer/BioNTech vaccine was suspected and the patient was treated with corticosteroids. One week after the onset of a liver disorder, the patient presented with gum bleeding and pancytopenia, and the diagnosis of AA was established via laboratory testing and bone marrow biopsy. After the diagnosis, the patient received immunosuppressive therapy using anti-lymphocyte serum (ATGAM) and CYCLOSPORINE A with progressive improvements in cytopenia. The important issue is whether AA is related to acute hepatitis or the coronavirus vaccine.

Conclusion: Clinicians should be aware of the risk of both the possibility of acute hepatitis, AA, or both after receiving the COVID-19 vaccination. It is very hard to distinguish the cause of AA between

vaccine- and hepatitis-related AA. Predicting who develops hepatic or myelo-complications after vaccination is difficult.

Case Reports: Turk J Phys Med Rehabil. 2022 Jun 1;68(2): 295-299.

doi: 10.5606/tftrd.2022.9984. eCollection 2022 Jun.

A case of Guillain-Barre syndrome after the second dose of AstraZeneca COVID-19 vaccination

Hanieh Bazrafshan, Leila Sadat Mohamadi Jahromi, Reyhaneh Parvin, Alireza Ashraf

PMID: 35989967 PMCID: PMC9366477 doi: 10.5606/tftrd.2022.9984

Abstract

Coronavirus disease 2019 (COVID-19) is a novel virus that primarily involves the respiratory system. Due to the COVID-19 pandemic, an extensive vaccination program is underway worldwide. Herein, we present a 68-year-old woman with paresthesia of both hands associated with gait instability, which started three to four days after receiving the second dose of Oxford/AstraZeneca vaccine against the COVID-19 infection. The acute inflammatory demyelinating polyradiculoneuropathy subtype of the Guillain-Barre syndrome, which is the most common subtype, was diagnosed. Regardless of the beneficial effects of the vaccines, this case report aimed to evaluate their severe complications, such as Guillain-Barre syndrome, to reduce their occurrence in the future.

Case Reports: J Community Hosp Intern Med Perspect. 2021 Sep 20;11(5): 597-600.

doi: 10.1080/20009666.2021.1954284. eCollection 2021.

A case of Guillain-Barre syndrome following Pfizer COVID-19 vaccine

Shiavax J Rao, Sahiba Khurana, Gayathri Murthy, Elliot T Dawson, Noushin Jazebi, Christopher J Haas

PMID: 34567447 PMCID: PMC8462911 doi: 10.1080/20009666.2021.1954284

Abstract

Since the first-reported case of Severe Acute Respiratory Distress Syndrome-Coronavirus 2 in December 2019, COVID-19 has caused a global pandemic associated with significant morbidity and mortality. After a year of advances in vaccine research and development, three vaccines for the prevention of COVID-19 (manufactured by Pfizer, Moderna and Johnson & Johnson's Janssen Biotech) are approved for use in the USA. We report the first case of Guillain-Barre Syndrome after receiving the second dose of the Pfizer COVID-19 vaccine, in a 42-year-old woman presenting with progressive ascending weakness and paresthesias. Diagnostic workup demonstrated cytoalbuminologic dissociation on cerebrospinal fluid analysis with confirmatory evidence of early demyelinating electrodiagnostic features on nerve conduction study and an extensive serological workup being negative for other viral or autoimmune disease triggers. Management included administration of intravenous immunoglobulin (total of 2 gm/kg), with frequent monitoring of forced vital capacity and negative inspiratory force. A longitudinal risk profile of neurologic complications caused from COVID-19 vaccines remains limited, and prompt recognition of potential neurological complications from the COVID-19 vaccine is of interest to public health.

Case Reports: J Korean Med Sci. 2022 Apr 4;37(13): e104.

doi: 10.3346/jkms.2022.37.e104.

A Case of Heart Transplantation for Fulminant Myocarditis After ChAdOx1 nCoV-19 Vaccination

Seok Hyun Kim, Soo Yong Lee, Ga Yun Kim, Ji Soo Oh, Jeongsu Kim, Kook Jin Chun, Min Ho Ju, Chee-Hoon Lee, Yeo-Jeong Song, Joo-Young Na

PMID: 35380028 PMCID: PMC8980363 doi: 10.3346/jkms.2022.37.e104

Abstract

Vaccines have become the mainstay of management against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection (coronavirus disease 2019; COVID-19) in the absence of effective antiviral therapy. Various adverse effects of COVID-19 vaccination have been reported, including cardiovascular complications such as myocarditis or pericarditis. Herein, we describe clinical records of a 63-year woman with fulminant myocarditis following ChAdOx1 nCoV-19 vaccination that was salvaged by heart transplantation. She complained chest pain, nausea, vomiting, and fever after the second vaccination. After the heart transplantation, the patient died due to necrotizing pneumonia on the 54th day of onset. Fulminant myocarditis is very rare after ChAdOx1 nCoV-19 vaccination but can be fatal.

Case Reports Medicine (Baltimore). 2022 Oct 28;101(43): e31304.

doi: 10.1097/MD.0000000000031304.

A case of hemophagocytic lymphohistiocytosis after BNT162b2 COVID-19 (Comirnaty®) vaccination

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PMID: 36316859 PMCID: PMC9622336 doi: 10.1097/MD.0000000000031304

Abstract

Rationale: Coronavirus disease (COVID-19), an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 virus, was reported in Wuhan of China in December 2019. The world is still in a state of pandemic owing to COVID-19. COVID-19 vaccines help our bodies develop immunity against the virus that causes COVID-19 without having to get the illness. Herein, we describe a rare case of a critical disorder, hemophagocytic lymphohistiocytosis (HLH), in a patient with nephritic sclerosis associated with hypertension, following mRNA COVID-19 vaccination. HLH is a life-threatening hyperinflammatory syndrome caused by aberrantly activated macrophages and cytotoxic T cells that may rapidly progress to terminal multiple organ failure.

Patient concerns: An 85-year-old Japanese woman with chronic renal failure and hypertension was included in this study. Routine laboratory investigations provided the following results: white blood cell (WBC) count, 4.6 × 109/L; hemoglobin (Hb), 8.1 g/dL; platelet count, 27 × 109/L; blood urea nitrogen 48.9 mg/dL, and serum creatinine 3.95 mg/dL. The patient developed malaise, vomiting, and persistent high fever (up to 39.7°C) on the 12th day after receiving the second dose of the vaccine. Initial evaluation revealed neutropenia. The total WBC count was 0.40 × 109/L (Neutrophils 0, Lymphocytes 240/μ, blast 0%); Hb 9.0 g/dL, platelet count 27 × 109/L; and, C Reactive Protein 9.64 mg/dL.

Diagnosis: Further tests showed hyperferritinemia (serum ferritin 2284.4 μg/L). Bone marrow examination revealed haemophagocytosis. A provisional diagnosis of HLH associated with the Comirnaty® vaccination was made based on the HLH-2004 diagnostic criteria.

Interventions: The patient was treated with granulocyte colony-stimulating factor and 500 mg methylprednisolone.

Outcomes: A significant improvement was observed in the patient's condition; the abnormal laboratory results resolved gradually, and the patient was discharged.

Lessons: This case serves to create awareness among clinicians that HLH is a rare complication of COVID-19 vaccination and should be considered, especially in patients with a history of chronic renal failure and hypertension.

Case Reports Acta Haematol. 2023;146(1): 65-71.

doi: 10.1159/000526980. Epub 2022 Sep 12.

A Case of Hemophagocytic Lymphohistiocytosis following Second Dose of COVID-19 Vaccination

Hee Won Park, Gi June Min, Tong Yoon Kim, Seok-Goo Cho

PMID: 36096118 PMCID: PMC9747738 doi: 10.1159/000526980

Abstract

Hemophagocytic lymphohistiocytosis (HLH) is a rare, severe hyperinflammatory disease characterized by overproduction of cytokines and hemophagocytosis of hematopoietic cells, resulting in multiorgan failure. Prompt treatment initiation is essential for patient survival. The coronavirus disease 2019 (COVID-19) pandemic has led to the rapid development of several vaccines, including BNT162b2 by Pfizer-BioNTech. Few cases of immune-mediated complications of COVID-19 and its vaccines have been reported, characterized by persistent stimulation of the immune system, resembling HLH. We report the case of a 21-year-old man with secondary HLH following a second dose of the BNT162b2 vaccine. The patient did not have primary HLH or other contributors to secondary HLH and met the HLH-2004 diagnostic criteria. He was safely treated with steroid pulse therapy alone, without etoposide, cyclosporin, or immunoglobulins, which are recommended for pediatric patients. Physicians need to be aware of such severe complications following a second dose of the COVID-19 vaccine.

Case Reports Cureus. 2021 Dec 16;13(12): e20455.

doi: 10.7759/cureus.20455. eCollection 2021 Dec.

A Case of Hepatotoxicity After Receiving a COVID-19 Vaccine

Muath M Alqarni, Ammar Z Faloudah, Amjad S Alsulaihebi, Hassan K Halawani, Abdulmajeed S Khan

PMID: 35070524 PMCID: PMC8760787 doi: 10.7759/cureus.20455

Abstract

The coronavirus disease 2019 (COVID-19) has led to a global health crisis. Its clinical manifestations are well-documented, and severe complications among patients who survived the infection are being continuously reported. Several vaccines with well-established efficacies and excellent safety profiles have also been approved. To date, few side effects of vaccines have been reported. Drug-induced hepatotoxicity is an extremely rare side effect of these vaccines, with few reported instances. In this case report, we describe a patient who experienced hepatotoxicity after receiving the COVID-19 vaccine from Pfizer BioNTech.

Case Reports: AACE Clin Case Rep. 2022 Sep-Oct;8(5): 204-209.

doi: 10.1016/j.aace.2022.06.001. Epub 2022 Jun 15.

A Case of Hypophysitis Associated With SARS-CoV-2 Vaccination

Anvitha R Ankireddypalli, Lisa S Chow, Angela Radulescu, Yasuhiko Kawakami, Takako Araki

PMID: 35754921 PMCID: PMC9212943 doi: 10.1016/j.aace.2022.06.001

Abstract

Background/objective: Although SARS-CoV-2 vaccines have been developed with multiple novel technologies and rapidly disseminated worldwide, the full profile of adverse effects has not been known. Recently, there are sporadic but increasing reports of endocrinopathy in relation to SARS-CoV-2 vaccination. Here we report a rare case of hypophysitis with acute onset of diabetes insipidus, immediately after SARS-CoV-2 vaccination.

Case report: A 48-year-old female patient had been in her usual state of health until she received the first SARS-CoV-2 vaccine. Two days after vaccination, she started to have flu-like symptoms, including severe headache and myalgia as well as persistent headache, polydipsia, and polyuria. She was diagnosed with diabetes insipidus, and magnetic resonance imaging revealed thickening of the pituitary stalk. Three months after vaccination, her symptoms had somewhat improved, but she still had pituitary stalk thickening on magnetic resonance imaging.

Discussion: Given the timing of the occurrence of diabetes insipidus, we believe that the patient's hypophysitis may be associated with SARS-CoV-2 vaccination. We also found 19 cases of endocrinopathy after SARS-CoV-2 vaccination by literature search. The reported endocrine organs were the thyroid, pituitary, and adrenals. Twelve cases of diabetes were also reported. Among 3 pituitary cases, diabetes insipidus was reported only in our case.

Conclusion: We report a rare case of SARS-CoV-2 vaccine-triggered hypophysitis, which led to diabetes insipidus. SARS-CoV-2 vaccine-related endocrinopathy seems, indeed, possible. Endocrinopathy is associated with infrequent complications; however, it may be underestimated in the post-SARS-CoV-2-vaccinated population. Further studies are warranted to better understand SARS-CoV-2 vaccine-related endocrinopathy.

Case Reports J Investig Med High Impact Case Rep. 2021 Jan-Dec: 9: 23247096211043386.

doi: 10.1177/23247096211043386.

A Case of Hypophysitis Following Immunization With the mRNA-1273 SARS-CoV-2 Vaccine

Natia Murvelashvili, Alex Tessnow

PMID: 34553641 PMCID: PMC8474296 doi: 10.1177/23247096211043386

Abstract

The emergence of a novel coronavirus and global pandemic raised the need for the rapid development of new vaccines to reduce the morbidity and mortality associated with Covid-19. Common side effects of these vaccines such as myalgia, arthralgia, nausea, fatigue, and injection site reaction are usually self-resolving. Recognition of other potential adverse effects of these novel vaccines is important due to their rapid and widespread distribution. We report a case of a 51-year-old man admitted to Parkland Memorial Hospital with headache, nausea, vomiting, malaise, and diffuse arthralgias 3 days after he received his second mRNA-1273 SARS-CoV-2 vaccination. He was found to have hyponatremia and a low serum cortisol level. Further workup revealed hypopituitarism with central hypothyroidism, hypogonadism, and a subnormal response to cosyntropin. Magnetic resonance imaging revealed a diffusely enlarged pituitary gland consistent with acute hypophysitis. The patient responded well to glucocorticoid and thyroid hormone supplementation and was discharged after 2 days in the hospital. This is the first reported case of hypopituitarism potentially associated with Covid-19 immunization.

Case Reports: Cureus. 2021 Oct 23;13(10): e18985.

doi: 10.7759/cureus.18985. eCollection 2021 Oct.

A Case of Idiopathic Thrombocytopenic Purpura After Booster Dose of BNT162b2 (Pfizer-Biontech) COVID-19 Vaccine

Srikrishna V Malayala, Bhavani N Papudesi, Rishika Sharma, Urwat T Vusqa, Ambreen Raza

PMID: 34820240 PMCID: PMC8607313 doi: 10.7759/cureus.18985

Abstract

Vaccination is now considered the best measure in minimizing the morbidity and mortality from the Covid-19 pandemic. Almost all the vaccines are considered safe except for minor and occasional side effects. Some of the commonly reported complications from the COVID-19 vaccines are vaccine-induced thrombotic thrombocytopenia (VITT)/ thrombosis with thrombocytopenia syndrome/vaccine-induced pro-thrombotic immune thrombocytopenia syndrome. In this case report, we present a case of a 75-year-old female who had an uncomplicated first and second vaccine dose but developed VITT after the booster dose of the vaccine. The patient was treated with dexamethasone and platelet transfusions. So far no such cases have been reported after the third (booster) dose of the Pfizer-Biontech vaccine. With this case report, we present the case of the patient and discuss the literature related to vaccine-induced thrombocytopenia.

Case Reports: J Family Med Prim Care. 2022 Oct;11(10): 6556-6559.
doi: 10.4103/jfmpc.jfmpc_476_22. Epub 2022 Oct 31.

A case of ischemic stroke and transient thrombocytopenia in a young female following adenoviral vector-based COVID-19 vaccination: Was the association incidental or causal?

Shweta Pandey, Ravindra Kumar Garg, Pooja Tripathi, Hardeep S Malhotra, Neeraj Kumar

PMID: 36618216 PMCID: PMC9810880 doi: 10.4103/jfmpc.jfmpc_476_22

Abstract

Since March 2021, cases with unusual clots, particularly cerebral venous sinus thrombosis and splanchnic vein thrombosis, have been reported worldwide following adenoviral vector-based coronavirus disease 2019 (COVID-19) vaccination. This entity has been termed vaccine-induced thrombotic thrombocytopenia (VITT). We report a 23-year-old healthy female who developed seizures, altered sensorium, and left hemiparesis, 20 days after receiving the first dose of adenoviral vector-based COVID-19 vaccine "Covishield™." The patient had transient thrombocytopenia. The D-dimer level was 2460 ng/mL. Magnetic resonance imaging (MRI) demonstrated occlusion of M2 segment of the middle cerebral artery and cerebral infarction. Platelet factor-4 antibodies level was normal. Treatment with aspirin and antiepileptic drugs resulted in a remarkable recovery. This is the first Indian case report of ischemic stroke and transient thrombocytopenia following SARS-CoV-2 ChAdOx1 nCoV-19 vaccination. Our case had clinical features consistent with the diagnosis of probable VITT. Familiarity with VITT is crucial because timely treatment with non-heparin anticoagulants and intravenous immunoglobulin improves the outcome.

Case Reports: J Emerg Med. 2022 Aug;63(2): e62-e65.

doi: 10.1016/j.jemermed.2021.10.005. Epub 2021 Oct 23.

A Case of Leukocytoclastic Vasculitis Following SARS-COV-2 Vaccination

Maya R Ball-Burack , Joshua M Kosowsky

PMID: 35690533 PMCID: PMC8536729 doi: 10.1016/j.jemermed.2021.10.005

Abstract

Background: Although vaccination against coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has been proven generally safe, rare but potentially serious adverse reactions do occur. Leukocytoclastic vasculitis (LCV) is a small-vessel vasculitis that has been associated with other immunizations, but, to our knowledge, has not been previously reported in association with vaccines directed against SARS-CoV-2.

Case report: We report the case of a 22-year-old man with no known past medical history who presented to the Emergency Department with 2 days of migratory arthritis in his ankles and palpable purpura on his bilateral lower extremities, occurring 10 days after receiving the Johnson & Johnson SARS-CoV-2 vaccine. The patient's clinical presentation was suggestive of leukocytoclastic vasculitis, and this diagnosis was confirmed on skin biopsy. Why Should an Emergency Physician Be Aware of This? Recognition of vasculitides is important for timely treatment and prevention of complications. In a patient presenting with palpable purpura after immunization against SARS-CoV-2, LCV should be promptly considered and worked up by the Emergency Physician, though management is most often entirely outpatient and the clinical course is typically mild and self-resolving.

Case Reports: J Neuroimmunol. 2021 Sep 15: 358: 577606.

doi: 10.1016/j.jneuroim.2021.577606. Epub 2021 Jun 24.

A case of longitudinally extensive transverse myelitis following vaccination against Covid-19

Claudia Pagenkopf, Martin Südmeyer

PMID: 34182207 PMCID: PMC8223023 doi: 10.1016/j.jneuroim.2021.577606

Abstract

Background: Longitudinally extensive transverse myelitis (LETM) is a rare subtype of transverse myelitis (TM) that potentially results in relevant disability. Apart from association to neuromyelitis optica and other chronic demyelinating diseases of the central nervous system, many other aetiologies are known. Particularly systemic infections and vaccination are considered potential triggers for immune mediated inflammation of the spinal cord. In the course of the current Covid-19 pandemic several cases of TM following Covid-19 infection have been described. Here we present a case of LETM following vaccination against Covid-19 with AZD1222, AstraZeneca. An extensive diagnostic work up was performed to rule out alternative causes, including prior and current Covid-19 infection.

Conclusion: To our knowledge this is first case of LETM possibly related to Covid-19 vaccination that is published after marketing authorisation of various vaccine candidates.

Case Reports: Case Rep Obstet Gynecol. 2022 Apr 27: 2022: 1611304.

doi: 10.1155/2022/1611304. eCollection 2022.

A Case of Markedly Elevated Isolated Alkaline Phosphatase in the Third Trimester of Pregnancy

Courtney T Connolly, Olivia Grubman, Zainab Al-Ibraheemi, Tatyana Kushner

PMID: 35531126 PMCID: PMC9068335 doi: 10.1155/2022/1611304

Abstract

Background: Alkaline phosphatase (ALP) is an enzyme produced by the liver, small intestine, bone, and kidneys as well as the placenta during pregnancy. ALP levels may increase up to twice the normal limit during pregnancy secondary to placental release and fetal bone growth. Rare Case Reports: of extremely elevated levels of ALP during pregnancy have demonstrated possible association with adverse pregnancy outcomes.

Case: The patient is a 36-year-old G2P1001 who was found to have extremely elevated ALP levels during pregnancy after presenting with bilateral lower leg swelling and rash after receiving the Pfizer COVID-19 vaccine. She subsequently developed intrahepatic cholestasis of pregnancy and preeclampsia. ALP peaked at 2,601 U/L immediately prior to delivery at 36 weeks 1 day. She was followed postpartum, and her ALP levels had nearly normalized by 15 weeks postpartum.

Conclusion: Our case demonstrates a rare report of an extremely elevated level of ALP in the setting of multiple adverse pregnancy outcomes, including preterm delivery, preeclampsia without severe features, and intrahepatic cholestasis of pregnancy.

Case Reports: Cureus. 2022 Apr 18;14(4): e24245.

doi: 10.7759/cureus.24245. eCollection 2022 Apr.

A Case of Membranous Nephropathy Hypothesized to be Associated With COVID-19 Vaccine

Wahida Rashid, Heba Mousa, Jahanzeb Khan, Fakhar Ijaz, Gerry D Ezell

PMID: 35602849 PMCID: PMC9116517 doi: 10.7759/cureus.24245

Abstract

A 56-year-old male patient with a medical history of essential hypertension was referred to the emergency room after he was found to have a serum creatinine level of 13 mg/dL at his primary care physician's office. The patient reported that he had developed a coronavirus disease 2019 (COVID-19)-like infection six months prior that was not confirmed. Two months later, he started to notice dyspnea on exertion and bilateral lower limb swelling and was started on furosemide. He received the first dose of the Moderna COVID-19 vaccine a month before the presentation but did not receive the second dose. Subsequently, his lower limb swelling and exertional dyspnea started worsening. He denied any new medication, dysuria, oliguria, hematuria, fever, or any other symptoms. Initial evaluation was consistent with kidney failure. Hypocalcemia and hyperphosphatemia were noted, along with medical renal disease on renal ultrasound. Eosinophils and nephrotic-range proteinuria were found in the urine. His serum phospholipase A2 receptor (PLA2R) antibodies were positive. A renal biopsy showed membranous glomerulonephritis with moderate segmental sclerosis, as well as tubulointerstitial fibrosis with neutrophils, consistent with acute interstitial nephritis. Positive staining for PLA2R in the glomerular deposits suggested primary membranous nephropathy (MN). He was treated with prednisone first, and when the kidney biopsy was conclusive for membranous glomerulopathy, he was started on rituximab. On

admission, he received hemodialysis intermittently, but this was stopped a month after discharge as his renal function normalized. Recently, there have been numerous cases reported with new onset of glomerular disease after receiving the COVID-19 vaccine. Further studies of vaccinated patients are needed to determine whether the severe acute respiratory syndrome coronavirus 2 virus vaccination is associated with a higher risk of MN and to identify potential predisposing factors and mechanisms of kidney injury in patients in whom it occurs.

Case Reports: BMC Neurol. 2022 Aug 22;22(1): 309.

doi: 10.1186/s12883-022-02838-4.

A case of Miller Fisher syndrome with delayed onset peripheral facial nerve palsy after COVID-19 vaccination: a case report

Kentaro Nanatsue, Makoto Takahashi, Sakiko Itaya, Keisuke Abe, Akira Inaba

PMID: 35996074 PMCID: PMC9395791 doi: 10.1186/s12883-022-02838-4

Abstract

Background: To prevent the spread of the novel coronavirus disease 2019 (COVID-19) infection, various vaccines have been developed and used in a large number of people worldwide. One of the most commonly used vaccines is the mRNA vaccine developed by Moderna. Although several studies have shown this vaccine to be safe, the full extent of its side effects has not yet been known. Miller-Fisher syndrome (MFS) is a rare condition that manifests ophthalmoplegia, ataxia, and loss of tendon reflexes. It is a subtype of Guillain-Barré syndrome and an immune-mediated disease related to serum IgG anti-GQ1b antibodies. Several vaccines including those for COVID-19 have been reported to induce MFS. However, there have been no reports of MFS following Moderna COVID-19 vaccine administration.

Case presentation: A 70-year-old man was referred to our hospital due to diplopia that manifested 1 week after receiving the second Moderna vaccine dose. The patient presented with restricted abduction of both eyes, mild ataxia, and loss of tendon reflexes. He was diagnosed with MFS based on his neurological findings and detection of serum anti-GQ1b antibodies. The patient was administered intravenous immunoglobulin, and his symptoms gradually improved. Five days after admission, the patient showed peripheral facial paralysis on the right side. This symptom was suggested to be a delayed onset of

peripheral facial nerve palsy following MFS that gradually improved by administration of steroids and antiviral drugs.

Conclusion: There have been no previous reports of MFS after Moderna COVID-19 vaccination. This case may provide new information about the possible neurological side effects of COVID-19 vaccines.

Case Reports: Avicenna J Med. 2022 Mar 10;12(1): 31-33.

doi: 10.1055/s-0042-1743209. eCollection 2022 Jan.

A Case of Minimal Change Disease after SARS-CoV-2 Vaccination under the Age of 18

Mohamad Nour Alhosaini

PMID: 35586388 PMCID: PMC9110102 doi: 10.1055/s-0042-1743209

Abstract

This is a care report of a 16-year-old-male who developed de novo minimal change disease following the second dose of the Pfizer vaccine. The patient developed sudden onset edema and 10 kg weight gain. He had nephrotic range proteinuria with normal renal function. Kidney biopsy with adequate sample confirmed minimal change disease. The patient improved after 1 week of starting prednisone. This is the first case of minimal change disease after the Pfizer vaccine in the teenager population since expanding the age groups to allow younger subjects to receive the vaccine. Reporting cases at different age groups will help in trying to clarify whether the increasing reports of nephrotic syndrome following the vaccination are accidental or cause-effect relationship.

Case Reports: Cureus. 2022 Dec 21;14(12): e32799.

doi: 10.7759/cureus.32799. eCollection 2022 Dec.

A Case of Multiple Sclerosis Uncovered Following Moderna SARS-CoV-2 Vaccination

Ange Ahoussougbemey Mele, Henry Ogbuagu, Sahil Parag, Bradley Pierce

PMID: 36694492 PMCID: PMC9859652 doi: 10.7759/cureus.32799

Abstract

Multiple sclerosis is a demyelinating disorder of the central nervous system characterized by lesions disseminated in time and space. The diagnostic criteria for laboratory-supported definite multiple sclerosis involve two episodes of symptoms, evidence of at least one white matter lesion on MRI, and abnormal oligoclonal bands in cerebrospinal fluid. Patients usually present in their early 20s and on average have up to one flare-up per year. While vaccines play an important role in the prevention of many diseases, they have often been purported as a potential trigger of multiple sclerosis and multiple sclerosis relapses. The medical literature provides reliable information concerning the risk of developing multiple sclerosis and multiple sclerosis relapses following the administration of most vaccines, but not much is known about the novel Moderna severe acute respiratory syndrome coronavirus 2 (SARS CoV 2) vaccine. We report the case of a 24-year-old male who presented with right-sided facial weakness, dizziness, and dysarthria two days after receiving his first dose of the Moderna coronavirus disease 2019 (COVID-19) vaccine. Imaging studies noted both acute and chronic central nervous system lesions. He met the diagnostic criteria for laboratory-supported definite multiple sclerosis. His acute flare was treated with intravenous corticosteroids and the patient was subsequently started on ocrelizumab. This case serves as an important example of the novel Moderna SARS-CoV-2 vaccine as a potential

trigger of multiple sclerosis relapse. In addition, we review the literature for similar occurrences with the other COVID-19 vaccines and provide reliable guidance for COVID-19 vaccination for patients with multiple sclerosis.

Case Report:

doi: 10.7759/cureus.32799

A Case of Multiple Sclerosis Uncovered Following Moderna SARS-CoV-2 Vaccination

Ange Ahoussougbemey Mele, Henry Ogbuagu, Sahil Parag, Bradley Pierce

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Abstract

Multiple sclerosis is a demyelinating disorder of the central nervous system characterized by lesions disseminated in time and space. The diagnostic criteria for laboratory-supported definite multiple sclerosis involve two episodes of symptoms, evidence of at least one white matter lesion on MRI, and abnormal oligoclonal bands in cerebrospinal fluid. Patients usually present in their early 20s and on average have up to one flare-up per year. While vaccines play an important role in the prevention of many diseases, they have often been purported as a potential trigger of multiple sclerosis and multiple sclerosis relapses. The medical literature provides reliable information concerning the risk of developing multiple sclerosis and multiple sclerosis relapses following the administration of most vaccines, but not much is known about the novel Moderna severe acute respiratory syndrome coronavirus 2 (SARS CoV 2) vaccine.

We report the case of a 24-year-old male who presented with right-sided facial weakness, dizziness, and dysarthria two days after receiving his first dose of the Moderna coronavirus disease 2019 (COVID-19)

vaccine. Imaging studies noted both acute and chronic central nervous system lesions. He met the diagnostic criteria for laboratory-supported definite multiple sclerosis. His acute flare was treated with intravenous corticosteroids and the patient was subsequently started on ocrelizumab.

This case serves as an important example of the novel Moderna SARS-CoV-2 vaccine as a potential trigger of multiple sclerosis relapse. In addition, we review the literature for similar occurrences with the other COVID-19 vaccines and provide reliable guidance for COVID-19 vaccination for patients with multiple sclerosis.

Conclusions: Overall, it can be concluded that many cases of multiple sclerosis relapses have been reported following the administration of COVID-19 vaccines with different mechanisms of action. The NMSS and the Multiple Sclerosis Centers of Excellence advocate for the safety of the vaccine in multiple sclerosis patients. Moreover, the AAN has released guidelines for the vaccination of multiple sclerosis patients on different disease-modifying therapies. Further research needs to be done to better comprehend the mechanism of these relapses following the administration of the different COVID-19 vaccines. Meanwhile, following these guidelines, as well as continued patient education and clinical monitoring, will contribute to mitigating these incidental side effects.

Case Reports: Acta Clin Belg. 2022 Aug;77(4): 772-777.

doi: 10.1080/17843286.2021.1977899. Epub 2021 Sep 12.

A case of multisystem inflammatory syndrome (MIS-A) in an adult woman 18 days after COVID-19 vaccination

Sofie Stappers, Britt Ceuleers, Daan Van Brusselen, Philippe Willems, Brecht de Tavernier, Anke Verlinden

PMID: 34511054 doi: 10.1080/17843286.2021.1977899

Abstract

We discuss a case of a young woman, presenting a constellation of clinical and biochemical features meeting the current case definition of multisystem inflammatory syndrome in adults (MIS-A), 18 days after receiving her first dose of the Oxford/AstraZeneca vaccine. Therapy by means of intravenous immunoglobulins was initiated, leading to clinical and biochemical recovery. Although a relationship between MIS-A and the preceding vaccination cannot be confirmed, it can also not be excluded, given the temporal association and the fact that there were no indicators of a preceding SARS-CoV-2 infection.

Case Reports: Int J Infect Dis. 2022 Mar: 116: 34-37.

doi: 10.1016/j.ijid.2021.12.339. Epub 2021 Dec 24.

A case of multisystem inflammatory syndrome in adults following natural infection and subsequent immunization

Anthony Lieu, Jordan Mah, Deirdre Church

PMID: 34954311 PMCID: PMC8702592 doi: 10.1016/j.ijid.2021.12.339

Abstract

Multisystem inflammatory syndrome in adults is a rare and life-threatening complication that follows natural COVID-19 infection and primarily affects young unvaccinated adults. This complication is seldom described following vaccination, which would have important implications for the vaccination timing and platform in this population. COVID-19 vaccines are extremely effective; however, the risk of rare adverse events needs to be balanced with the vaccination benefits.

Case Reports: Heliyon. 2022 May 28;8(6): e09537.

doi: 10.1016/j.heliyon.2022.e09537. eCollection 2022 Jun.

A case of myocarditis after COVID-19 vaccination: incidental or consequential?

Leona S Alizadeh, Vitali Koch, Ibrahim Yel, Leon D Grünewald, Daniel Mathies, Simon Martin, Thomas J Vogl, Dominic Rauschning, Christian Booz

PMID: 35655920 PMCID: PMC9142175 doi: 10.1016/j.heliyon.2022.e09537

Abstract

Vaccination represents one of the fundamentals in the fight against SARS-CoV-2. Myocarditis has been reported as a rare but possible adverse consequence of different vaccines, and its clinical presentation can range from mild symptoms to acute heart failure. We report a case of a 29-year-old man who presented with fever and retrosternal pain after receiving SARS-CoV-2 vaccine. Cardiac magnetic resonance imaging and laboratory data revealed typical findings of acute myocarditis.

Case Reports: Acta Cardiol. 2022 Nov;77(9): 852-854.

doi: 10.1080/00015385.2022.2040825. Epub 2022 Feb 21.

A case of myocarditis following ChAdOx1 nCov-19 vaccination

Olivier Van Kerkhove, Frank Renders, Mathias Leys

PMID: 35189775 doi: 10.1080/00015385.2022.2040825

Abstract

Introduction: Myocarditis is an inflammatory disease of the myocardium, that might lead to reduced cardiac function and in the most severe cases to mortality. Although uncommon, it is a known adverse event after vaccination with coronavirus disease 2019 (COVID-19) mRNA vaccines. Here, we report the case of myocarditis following vaccination with a viral vector vaccine, ChAdOX1 nCoV-19.Case presentation: A 50-year-old male presented at the emergency department with shortness of breath, general malaise and fever, 5 days after receiving a second dose of the ChAdOx1 vaccine. Biochemical analysis revealed elevated serum CRP and troponin levels. Two weeks after initial presentation, a cardiac MRI showed belated contrast capitation in the left ventricle, confirming the diagnosis of myocarditis

Conclusions: To our knowledge, this is the first report of myocarditis following ChAdOx1 vaccination. Except for some case of myocarditis upon the Ad26COVS1 vaccine, no other cases were reported upon vaccination with the ChAdOX1 viral vector vaccines. With this report we would like to raise awareness about myocarditis as an adverse event following ChAdOx1 vaccination.

Case Reports: J Korean Med Sci. 2022 Apr 25;37(16): e131.

doi: 10.3346/jkms.2022.37.e131.

A Case of Myocarditis Presenting With a Hyperechoic Nodule After the First Dose of COVID-19 mRNA Vaccine

Seunghwan Park, Jihye You

PMID: 35470603 PMCID: PMC9039195 doi: 10.3346/jkms.2022.37.e131

Abstract

Myocarditis and/or pericarditis have been reported as adverse events following coronavirus disease 2019 (COVID-19) messenger RNA vaccination, with most cases occurring within 1 week after the second dose. We report a rare case of myocarditis after the first dose of the BNT162b2 (Pfizer-BioNTech) COVID-19 vaccine in a 17-year-old boy. Here, we describe the laboratory, electrocardiographic, and imaging findings of myocarditis.

Case Reports: Clin Med Insights Case Rep. 2022 Nov 21: 15: 11795476221138648.

doi: 10.1177/11795476221138648. eCollection 2022.

A Case of Myopericarditis After the Second Dose of mRNA COVID-19 Vaccine in a Patient With a History of Myopericarditis

Kosuke Fujibayashi, Kouji Kajinami

PMID: 36439701 PMCID: PMC9684059 doi: 10.1177/11795476221138648

Abstract

Vaccination is important for the prevention of coronavirus-induced disease 2019 (COVID-19) caused by SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) and to protect persons with a high risk for complications. There have been reports of myopericarditis following COVID-19 vaccination, especially in adolescent males and young adults. Breakthrough infections, such as the Delta or Omicron variant of SARS-CoV-2, have raised great concern about the necessity for repeated doses of the vaccine. A case of myopericarditis after the second dose of COVID-19 mRNA-1273 (Moderna) vaccine in a 23-year-old man with a prior episode of viral myopericarditis is presented. He received the second dose of the COVID-19 mRNA vaccine, after which he developed persistent midsternal chest pain and he was subsequently transferred to our emergency department. An echocardiogram showed a trivial inferior pericardial effusion with diffuse left ventricular systolic dysfunction. He was treated with colchicine from the first day of hospitalization with a diagnosis of myopericarditis. His chest pain had resolved by the third day, and left ventricular wall motion was dramatically improved by the seventh day of hospitalization. A strong response to the second vaccination in the present case suggests that the prior history of myopericarditis is evidence of strong congenital or acquired immunological features in this individual. Individuals with such a strong immune response may

be more likely to develop myopericarditis after mRNA vaccination. Immunization against COVID-19 is currently recommended from a risk-benefit standpoint. We advised the patient to avoid additional COVID-19 mRNA vaccines because of this episode. The risk of COVID-19 weighed against myopericarditis associated with the mRNA vaccination should be considered on a case-by-case basis. This case may help us better understand the mechanism of myopericarditis following COVID-19 mRNA vaccination.

Case Reports: Arch Clin Cases. 2022 Apr 6;9(1): 1-5.

doi: 10.22551/2022.34.0901.10195. eCollection 2022.

A case of myopericarditis following administration of the Pfizer COVID-19 vaccine

Zoey Morton, Danetta Green, Matt Grisham

PMID: 35529098 PMCID: PMC9066579 doi: 10.22551/2022.34.0901.10195

Abstract

Numerous vaccines have been developed to address the COVID-19 pandemic, the most frequently administered are the Moderna and Pfizer-BioNTech (Pfizer) mRNA COVID-19 vaccines. Of 177 million individuals that have full vaccination status, there have been 1,148 cases of myocarditis or pericarditis reported. At this time, the relationship between myopericarditis and the Pfizer mRNA COVID-19 vaccine has not been well established in current literature due to the novelty of the vaccine. We discuss a 16-year-old male who presented to the emergency department with chest pain 48 hours after receiving his second dose of the Pfizer COVID-19 vaccine. His laboratory and electrocardiogram findings were consistent with acute myopericarditis and work-up did not reveal an obvious etiology. After starting anti-inflammatory therapies, the patient's symptoms and laboratory markers improved and the patient was discharged from the hospital expected to make a full recovery. This case demonstrates the rapid recovery with no sequelae following this adverse effect, highlighting that the benefits of the COVID-19 vaccination most likely outweigh the risks.

Dermatol Ther (Heidelb): 2022 Mar;12(3): 801-805.

doi: 10.1007/s13555-022-00689-y. Epub 2022 Feb 15.

A Case of New-Onset Lichen Planus after COVID-19 Vaccination

Vincenzo Picone, Gabriella Fabbrocini, Lorenzo Martora, Fabrizio Martora

PMID: 35167108 PMCID: PMC8853108 doi: 10.1007/s13555-022-00689-y

Abstract

The COVID 19 vaccination campaign has been underway for about a year now, and there are now many skin reactions associated with the administration of these vaccines in the literature. In view of the forthcoming third dose, we believe it is important to report our experience.

Case Reports: J Dermatol. 2023 Sep;50(9): 1208-1212.

doi: 10.1111/1346-8138.16816. Epub 2023 May 8.

A case of persistent, confluent maculopapular erythema following a COVID-19 mRNA vaccination is possibly associated with the intralesional spike protein expressed by vascular endothelial cells and eccrine glands in the deep dermis

Hozumi Sano, Misaki Kase, Yukiko Aoyama, Shigetoshi Sano

PMID: 37154426 doi: 10.1111/1346-8138.16816

Abstract

Here, we report an 86-year-old Japanese woman presenting with confluent maculopapular erythema, which developed following the second dose of COVID-19 Messenger RNA (mRNA) vaccine (BNT162b2). Her skin lesions spread over time and persisted for more than 3 months. Surprisingly, immunohistochemical staining of the lesion 100 days after the disease onset revealed the COVID-19 spike protein expressed by vascular endothelial cells and eccrine glands in the deep dermis. As she had no episode of COVID-19 infection, it is highly likely that the spike protein was derived from the mRNA vaccine and it might be the cause of the development and persistence of her skin lesions. Her symptoms were prolonged and intractable until oral prednisolone was given.

Case Reports: Cureus. 2021 May 4;13(5): e14837.

doi: 10.7759/cureus.14837.

A Case of Postural Orthostatic Tachycardia Syndrome Secondary to the Messenger RNA COVID-19 Vaccine

Sujana Reddy, Satvik Reddy, Manish Arora

PMID: 33968543 PMCID: PMC8101507 doi: 10.7759/cureus.14837

Abstract

Postural orthostatic tachycardia syndrome (POTS) is an impaction of the autonomic nervous system initiating orthostatic tachycardia. There are numerous triggers for POTS including viruses, vaccines, and an autoimmune basis. This case report is clinically relevant to better understand the pathophysiology behind the messenger RNA (mRNA) coronavirus disease 2019 (COVID-19) vaccine and the mechanism that triggers autonomic nervous system dysfunction. Furthermore, the overall goal of this case study is to report a unique side effect associated with the novel mRNA COVID-19 vaccine. A 42-year-old male, with no prior symptoms of sinus tachycardia and presyncope episodes, is diagnosed with POTS secondary to the first dose of the mRNA COVID-19 vaccine. Symptoms to this date include sinus tachycardia, dizziness, headaches, and fatigue that are often triggered after a large meal or standing for a longer duration. Numerous diagnostic tests and images failed to confirm any other diagnosis other than POTS. There was a sequential connection between the onset of symptoms approximately one week after taking the first dose of the mRNA COVID-19 vaccine. Currently, POTS in this patient is controlled by lifestyle modification. This case report has broader implications as it can help us understand how the mRNA vaccine works on the body relative to the immune system. Our theory is that the development of antibodies activates an autoimmune reaction that triggers POTS disease. The prevalence of the POTS dysautonomia post-vaccination will be clearer as more data

and research are conducted on the side effects from the innovative mRNA vaccines created to combat severe acute respiratory syndrome coronavirus 2.

Case Reports: Vaccines (Basel). 2022 Nov 21;10(11): 1972.

doi: 10.3390/vaccines10111972.

A Case of Purpura Annularis Telangiectodes of Majocchi after Anti-SARS-CoV-2 Pfizer-BioNTech Vaccine: Is There an Association?

Francesca Ambrogio, Carmelo Laface, Giorgia Sbarra, Raffaele Filotico, Girolamo Ranieri, Chiara Barlusconi, Aurora De Marco, Gerardo Cazzato, Domenico Bonamonte, Paolo Romita, Caterina Foti

PMID: 36423067 PMCID: PMC9697082 doi: 10.3390/vaccines10111972

Abstract

The advent of vaccines has drastically reduced the incidence, morbidity, and mortality related to COVID-19, and with the increase in the number of vaccinated subjects, there have been reports of some adverse events, including skin reactions. In this paper, we report a clinical case of Purpura Annularis Telangiectodes of Majocchi following a third-dose administration of the Pfizer-BioNTech COVID-19 vaccine. Almost 30 days after the third dose, the patient presented erythematous annular patches on the lower limbs with purpuric peripheral areas and a central clearing with no other symptoms. A dermoscopic examination showed capillaritis, reddish-brown dot-clods on a coppery-red background caused by leaky capillaries. To date, the causes of Majocchi's disease are not well-defined; in the literature, three vaccination-related cases have been reported: one after a flu vaccination and two after an anti-SARS-CoV-2 one. Dermatologists should be trained to promptly recognize these clinical manifestations after vaccination, which will likely become a common finding in daily clinical practice, especially given the large diffusion of SARS-CoV-2 vaccinations.

Case Reports: Inflamm Res. 2021 Sep;70(9): 935-937.

doi: 10.1007/s00011-021-01491-w. Epub 2021 Aug 14.

A case of reactivation of varicella-zoster virus after BNT162b2 vaccine second dose?

Luca Spiro Santovito, Graziano Pinna

PMID: 34390376 PMCID: PMC8364300 doi: 10.1007/s00011-021-01491-w

Abstract

We report a case of itchy papulovesicular rash consistent with varicella-zoster virus reactivation after Pfizer-BioNTech vaccine second dose administration. While there have been cases of varicella-zoster virus reactivation due to COVID-19 or COVID-19 vaccine inoculation in older individuals with pre-existing conditions, this case report describes the first case of varicella-zoster virus reactivation on a healthy, young male in the absence of pre-existing conditions. The mechanisms underlying varicella-zoster virus reactivation in patients with COVID-19 are unknown and should be further characterized.

Case Reports: Cureus. 2022 Mar 7;14(3): e22911.

doi: 10.7759/cureus.22911. eCollection 2022 Mar.

A Case of Recurrent Acute Anterior Uveitis After the Administration of COVID-19 Vaccine

Manal A Alhamazani, Wejdan S Alruwaili, Bandar Alshammri, Sarah Alrashidi, Jluwi Almasaud

PMID: 35399463 PMCID: PMC8986516 doi: 10.7759/cureus.22911

Abstract

We present a case of a 37-year-old healthy man who developed acute anterior uveitis after receiving the first and second doses of the Pfizer-BioNTech coronavirus disease 2019 (COVID-19) vaccine. To the best of our knowledge, this is the first report of a recurring incidence of ocular side effects associated with COVID-19 immunization. Based on the timing of the start of symptoms with the first and second vaccinations, the absence of prior medical conditions, and unremarkable investigations, we believe that the patient's anterior uveitis may have been induced by the vaccine itself. This case suggests that vaccination could be a risk factor in uveitis development and recurrence following redosing. As a result, we recommend that ophthalmologists investigate the recent immunization status in each case of uveitis with a temporal association with COVID-19 vaccine administration and record these cases to improve the quality of data tracking of potential adverse responses to vaccines.

Case Reports: CJC Open. 2022 Dec;4(12): 1027-1030.

doi: 10.1016/j.cjco.2022.10.001. Epub 2022 Oct 10.

A Case of Recurrent Myocarditis After COVID-19 Vaccination, Due to Acute Myeloid Leukemia

Isabelle Dobronyi, Danielle Porter, Idan Roifman, Ady Orbach, Bradley H Strauss

PMID: 36249914 PMCID: PMC9549748 doi: 10.1016/j.cjco.2022.10.001

Abstract

A 25-year-old man presented with chest pain and an elevated troponin level following COVID-19 vaccination. Despite initial response to nonsteroidal anti-inflammatory drugs, he developed a recurrent and relapsing course requiring multiple readmissions. Cardiac magnetic resonance imaging confirmed myocarditis. Due to progressing macrocytic anemia, he was eventually diagnosed with acute myeloid leukemia, thought to be the underlying driver of his recurrent and persistent myocarditis.

Case Reports: Am J Case Rep. 2022 Sep 7: 23: e937505.

doi: 10.12659/AJCR.937505.

A Case of Segmental Arterial Mediolysis of Multiple Visceral Arteries Following Anti-COVID-19 Vaccination: Late Complication or Rare Coincidence?

Akihiro Takeda, Wataru Koike, Fumihiro Okumura

PMID: 36068721 PMCID: PMC9469033 doi: 10.12659/AJCR.937505

Abstract

BACKGROUND Segmental arterial mediolysis (SAM) is a rare noninflammatory, nonatherosclerotic vascular disorder characterized by arterial media disruption. In conjunction with the SARS-CoV-2 infection or anti-COVID-19 vaccination, vascular disorders have been recognized as organ-specific immune-mediated complications, and the number of reported cases is gradually increasing. CASE REPORT A 68-year-old man presented with severe upper abdominal pain and nausea 58 days after a third injection of Pfizer-BioNTech anti-COVID-19 mRNA vaccination. An abdominal dynamic computed tomography angiography showed stenosis and dilatation of multiple visceral arteries, including the middle and right colic arteries. In the omental arteries, spindle-shaped dilatation and stenosis were identified. The left epiploic artery was not visualized, suggesting the development of occlusion due to arterial dissection. Based on these findings, SAM of multiple visceral arteries was diagnosed. Because the patient's vital condition was stable, treatment by observation, with restriction of daily living, was chosen. Seventy-five days later, the pathological lesions in the affected vessels spontaneously resolved. CONCLUSIONS While coincidence could not be completely excluded in this case, anti-COVID-19 mRNA vaccination should be noted for its potential association with SAM as a possible late complication.

Case Reports: Hum Vaccin Immunother. 2021 Nov 2;17(11): 4099-4101.

doi: 10.1080/21645515.2021.1971920. Epub 2021 Oct 29.

Acute CNS demyelination in a subject with cerebellar ataxia following the first dose of COVID-19 vaccine; a case report

Omid Mirmosayyeb, Sara Baghérieh, Vahid Shaygannejad

PMID: 34714721 PMCID: PMC8567291 doi: 10.1080/21645515.2021.1971920

Abstract

Vaccination-induced demyelination is a rare, unusual side effect of certain vaccines which can cause significant damage to patient's sensory-motor abilities within days. Although COVID-19 vaccines go through rigorous clinical trials before they are injected to the general population, certain unexpected side effects remain inevitable. We herein describe a case of a 42-year-old woman who experienced acute demyelination 10 days after the Oxford-AstraZeneca vaccination. To the best of our knowledge, this is the first case of such nature and severity described regarding COVID-19 vaccines' side effects.

Case Reports: Cornea. 2021 Jan;40(1): 123-124.

doi: 10.1097/ICO.0000000000002556.

Acute Corneal Endothelial Graft Rejection With Coinciding COVID-19 Infection

Sierra X Jin, Viral V Juthani

PMID: 32889957 PMCID: PMC7513958 doi: 10.1097/ICO.0000000000002556

Abstract

Purpose: To report a case of acute corneal endothelial graft rejection with the concurrent onset of coronavirus disease 2019 (COVID-19) symptoms.

Methods: Case report.

Results: A 31-year-old African American woman with a history of asthma, sleep apnea, obesity (body mass index of 40), and bilateral keratoconus was noted to have acute corneal endothelial graft rejection 3 months after uncomplicated penetrating keratoplasty of the left eye. The patient developed dysgeusia and subjective fever on the same day as ocular discomfort, and she was subsequently diagnosed with COVID-19 with only these 2 classic symptoms of the viral infection.

Conclusions: Severe acute respiratory syndrome coronavirus 2 is known to cause conjunctivitis and has demonstrated transmissibility through ocular secretions. Acute immune and inflammatory dysregulations have been seen in cases of COVID-19 through various mechanisms. COVID-19 infection may potentially compromise ocular immune privilege contributing to acute corneal graft rejection.

Case Reports: Cornea. 2022 Feb 1;41(2): 252-253.

doi: 10.1097/ICO.0000000000002914.

Acute Corneal Epithelial Rejection of LR-CLAL After SARS-CoV-2 Vaccination

Martin de la Presa, Amit Govil, Winston D Chamberlain, Edward J Holland

PMID: 34743101 doi: 10.1097/ICO.0000000000002914

Abstract

Purpose: The purpose of this study was to report a case of acute corneal epithelial rejection of living-related conjunctival limbal allograft (LR-CLAL) after severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination.

Observations: A 27-year-old woman developed acute epithelial rejection of LR-CLAL 2 weeks after receiving the SARS-CoV-2 vaccine. She received the LR-CLAL transplant 4 years and 7 months previously and had a stable clinical course with no history of rejection. She had an ABO blood group and human leukocyte antigen compatible donor, no systemic comorbidities, and no rejection risk factors.

Conclusions: The novel SARS-CoV-2 vaccine upregulates the immune system to produce an adaptive immune response. The SARS-CoV-2 vaccine may potentially be associated with increased risk of rejection in those with ocular surface transplants.

Case Reports: Cornea. 2022 Jan 1;41(1): 121-124.

doi: 10.1097/ICO.0000000000002878.

Acute Corneal Transplant Rejection After COVID-19 Vaccination

Amar P Shah, Daliya Dzhaber, Kenneth R Kenyon, Kamran M Riaz, Dean P Ouano, Ellen H Koo

PMID: 34620770 doi: 10.1097/ICO.0000000000002878

Abstract

Purpose: The purpose of this report was to describe 4 cases of acute corneal transplant rejection occurring in association with coronavirus disease 2019 (COVID-19) mRNA vaccination.

Methods: Four patients with prior keratoplasty developed presumed immunologic rejection after the mRNA-1273 vaccination for coronavirus 2 (SARS-CoV-2). Case 1 had received Descemet membrane endothelial keratoplasty 6 months ago and presented with endothelial graft rejection 3 weeks after the first vaccine dose. Case 2 had undergone penetrating keratoplasty 3 years previously and presented with acute endothelial rejection 9 days after the second vaccine dose. Case 3 had prior Descemet stripping automated endothelial keratoplasty (DSAEK) and began experiencing symptoms of endothelial graft rejection 2 weeks after the second vaccine dose. Case 4 presented with endothelial rejection of the penetrating keratoplasty graft 2 weeks after the second vaccine dose.

Results: Frequent topical corticosteroids alone were initiated in all 4 cases. In case 1, the endothelial rejection line appeared fainter with improvement in visual acuity and corneal edema 5 weeks after diagnosis. Case 2 experienced complete resolution of corneal stromal edema and rejection line 6 weeks after diagnosis. Cases 3 and 4 have both experienced initial improvement with steroid treatment as well.

Conclusions: These cases suggest acute corneal endothelial rejection may occur soon after either dose of the COVID-19 mRNA vaccine. Prompt initiation of aggressive topical steroid therapy may result in complete resolution of clinical signs and symptoms. Further studies are needed to elucidate the causal mechanism of corneal graft rejection after COVID-19 vaccination.

Case Reports: Cornea. 2022 Feb 1;41(2): 257-259.

doi: 10.1097/ICO.0000000000002886.

Acute Corneal Transplant Rejection After Severe Acute Respiratory Syndrome Coronavirus 2 mRNA-1273 Vaccination

Suyeon Yu, David C Ritterband, Isha Mehta

PMID: 34690266 doi: 10.1097/ICO.0000000000002886

Abstract

Purpose: The purpose of this article was to report a case of full-thickness corneal transplant rejection 3 days after immunization with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) Moderna mRNA-1273 vaccine.

Methods: Case Report.

Results: A 51-year-old man with a history of keratoconus and penetrating keratoplasty underwent repeat penetrating keratoplasty for graft failure. The patient had an uncomplicated intraoperative and postoperative course with improved vision and a healthy graft. The patient received the SARS-CoV-2 Moderna vaccine on postoperative week 3, and within 3 days, the patient began developing eye pain, photophobia, and blurred vision. The patient was found to have graft rejection with corneal edema and endothelial keratic precipitates. The rejection did not improve despite a trial of increased topical steroids and ultimately evolved into graft failure.

Conclusions: To the best of our knowledge, this case of full-thickness graft rejection after the Moderna SARS-CoV-2 mRNA vaccination is the first to be reported worldwide. The temporal relationship between vaccination and subsequent rejection is highly suggestive of causation due to the short interval (3 days) between vaccination and rejection and the lack of other inciting factors in an otherwise healthy graft. Patients with corneal transplants who plan to take the COVID-19

vaccinations should be counseled on symptoms and closely monitored, and an individualized plan should be made in discussion with the ophthalmologist.

Case Reports: Diseases. 2022 Feb 20;10(1): 13.

doi: 10.3390/diseases10010013.

Acute Demyelinating Encephalomyelitis Post-COVID-19 Vaccination: A Case Report and Literature Review

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PMID: 35225865 PMCID: PMC8884009 doi: 10.3390/diseases10010013

Abstract

New advancements in the medical community have rapidly occurred with the development of medical information across the globe during the COVID-19 pandemic. Several vaccine manufacturers were able to obtain clearance to administer vaccines in selected age groups and for those at high risk for COVID-19 complications. As vaccines became more readily available, there was a significant effort supported by scientific information to get people vaccinated to boost herd immunity. Acute demyelinating encephalomyelitis (ADEM) is a rare autoimmune disease, causing demyelination in the brain and spinal cord, presenting as monophasic, acute-onset, and rapidly progressive multifocal neurological deficits. A wide variety of precipitating factors can trigger ADEM, and it has long been known to be a rare adverse event following some types of vaccinations including rabies, diphtheria-tetanus-polio, smallpox, measles, mumps, rubella, pertussis, influenza, and hepatitis B vaccines. Recently, ADEM has also been associated with COVID-19 infection and (very rarely) with COVID-19 vaccination. We have a 56-year-old female who was not known to have any medical issues. She voluntarily received her first COVID-19 vaccination (AstraZeneca) ten days after immunization; she developed weakness of the lower limbs and slurred speech. She tested negative for COVID-19, and a brain MRI showed T2-weighted white-matter hyperintense lesions suggesting acute demyelinating encephalomyelitis. She was managed

with pulse-dose steroids, which resulted in a marked improvement in her symptoms, and discharged in a stable condition. Physicians should be aware of this neurological disorder and the management options for better patient care and outcomes.

Case Reports: Cureus. 2022 Jun 23;14(6): e26258.

doi: 10.7759/cureus.26258. eCollection 2022 Jun.

Acute Disseminated Encephalomyelitis (ADEM) After Consecutive Exposures to Mycoplasma and COVID Vaccine: A Case Report

Heba Mousa, Tanvi H Patel, Idu Meadows, Burcu Ozdemir

PMID: 35911280 PMCID: PMC9312359 doi: 10.7759/cureus.26258

Abstract

Acute disseminated encephalomyelitis (ADEM) is an autoimmune demyelinating disease of the central nervous system, commonly triggered by viral infections or after immunization. ADEM occurrences in adults are rare. Full spectrum of complications is unknown for novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) mRNA vaccines. A previously healthy 44-year-old female presented to the emergency room (ER) with acute onset of tingling, numbness, and weakness of both lower extremities, urinary retention, blurred vision in right eye, and midline lower back pain. Physical examination revealed bilateral lower extremity weakness 1/5, absent deep tendon reflexes, and decreased sensation. She received the first dose of SARS-CoV-2 vaccine six days prior to presentation to ER. Imaging of her lumbar spine and head were consistent with an active demyelinating plaque consistent with demyelinating disease either multiple sclerosis (MS) or ADEM. The patient was started on SoluMedrol 500 mg IV twice daily for five days. Serological workup and CSF analysis were nonsignificant except for Mycoplasma pneumonia IgM, elevated myelin basic protein, and positive IgG, IgA, and IgM. Patient gradually improved and was transferred to rehabilitation. Repeat MRI brain and spine showed improvement in previous lesions. However, she had worsening left eye symptoms that prompted her transfer to another facility for plasmapheresis. Plasma exchange was done for five treatments for

ADEM. Patient started noticing improvement in vision and was discharged on steroid taper. We report a case of a possible association between ADEM and SARS-CoV-2 mRNA vaccine. It should be considered in the differential diagnosis in any case suggestive of acute demyelination after COVID-19 vaccination.

Forensic Sci Med Pathol. 2022 Mar;18(1): 74-79.

doi: 10.1007/s12024-021-00440-7. Epub 2021 Nov 4.

Acute disseminated encephalomyelitis (ADEM) following recent Oxford/ AstraZeneca COVID-19 vaccination

Fiona Permezel, Branko Borojevic, Stephanie Lau, Hans H de Boer

PMID: 34735684 PMCID: PMC8567127 doi: 10.1007/s12024-021-00440-7

Abstract

This report describes the clinical context and autopsy findings in the first reported fatal case of acute disseminated encephalomyelitis (ADEM), developed after being vaccinated using the Oxford/ AstraZeneca COVID-19 vaccine. ADEM is a rare autoimmune disease, causing demyelination in the brain and spinal cord. A wide variety of precipitating factors can trigger ADEM, and it has long been known to be a rare adverse event following some types of vaccinations. Recently, ADEM has also been associated with COVID-19 infection and (very rarely) with COVID-19 vaccination. The reports of the latter however all pertain to living patients. Our case demonstrates that ADEM should be considered in patients developing neurological symptoms post COVID-19 vaccination, although that this adverse reaction is likely to remain extremely rare. Our report further emphasizes the added value of comprehensive post mortem investigation to confirm ante mortem diagnosis and to determine vaccination safety

Case Reports: BJR Case Rep. 2023 Feb 20;9(2): 20220097.

doi: 10.1259/bjrcr.20220097. eCollection 2023 Mar.

Acute disseminated encephalomyelitis (ADEM)-like illness in a pediatric patient following COVID-19 vaccination

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PMID: 36998331 PMCID: PMC10043599 doi: 10.1259/bjrcr.20220097

Abstract

Since the inception of the COVID-19 pandemic, over 60 cases of acute disseminated encephalomyelitis (ADEM) or ADEM-like clinically isolated syndromes have been linked to COVID-19 infection. However, cases linked to COVID-19 vaccination remain exceptionally rare. To the author's knowledge, eight published cases of ADEM or ADEM-like clinically isolated syndrome have been described after patients received COVID-19 vaccinations, all of which occurred in adults. This report details the first documented case of an ADEM-like illness in a pediatric patient, which developed shortly after receiving the Pfizer (Pfizer-BioNTech, Germany) COVID-19 vaccination. The patient made a near complete clinical recovery over 10 days after receiving a 5-day course of intravenous immunoglobulin therapy.

Case Reports: Clin Neurol Neurosurg. 2021 Sep: 208: 106839.

doi: 10.1016/j.clineuro.2021.106839. Epub 2021 Jul 21.

Acute disseminated encephalomyelitis after SARS-CoV-2 vaccination

Alberto Vogrig, Francesco Janes, Gian Luigi Gigli, Francesco Curcio, Ilaria Del Negro, Serena D'Agostini, Martina Fabris, Mariarosaria Valente

PMID: 34325334 PMCID: PMC8294707 doi: 10.1016/j.clineuro.2021.106839

Abstract

Several central and peripheral nervous system complications associated with the severe acute respiratory syndrome coronavirus (SARS-CoV-2) infection have been recently described. An effective mass vaccination program is necessary to effectively reduce infection spread and, consequently, limit long-term sequelae, including those affecting the nervous system. Nevertheless, as more patients gain access to coronavirus disease 2019 (COVID-19) vaccines, it is important to report potential adverse events. Herein, we report a patient with previous history of post-infectious rhombencephalitis who developed an acute disseminated encephalomyelitis (ADEM) two weeks after being vaccinated for COVID-19.

Case Reports: Am J Case Rep. 2022 Jun 19: 23: e936574.

doi: 10.12659/AJCR.936574.

Acute Disseminated Encephalomyelitis After SARS-CoV-2 Vaccination

Hadia R Ahmad, Victoria M Timmermans, Tarek Dakakni

PMID: 35717556 PMCID: PMC9218399 doi: 10.12659/AJCR.936574

Abstract

Background: Acute disseminated encephalomyelitis (ADEM) is a disorder of the central nervous system which has been associated with preceding infection as well as vaccinations. We present a case of a 61-year-old woman with ADEM after receiving her initial vaccination for the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This case highlights management of this acute condition.

Case Report: A 61-year-old woman with history of hypertension and anxiety presented with progressive generalized weakness and difficulty with communication which began a few weeks ago, shortly after receiving the Pfizer vaccine for the novel coronavirus (COVID-19). On arrival, she was found to be encephalopathic and tachypneic, ultimately requiring emergent intubation. During her hospital course, an MRI of her brain was obtained which showed nonspecific acute versus subacute leukoencephalopathy involving the brainstem and deep white matter. Her cerebrospinal fluid showed elevated protein but was otherwise unremarkable. Further testing to rule out tick-borne illnesses, viral etiology, and multiple sclerosis were negative. Electroencephalography showed nonspecific diffuse cerebral dysfunction but no seizures or epileptiform discharges. She was treated with 5 doses of methylprednisolone 1 g and intravenous immunoglobulin (IVIG) 2 g/kg over 5 days. She had marked improvement in her neurologic status after treatment.

Conclusions: In conclusion, ADEM should be acknowledged as a rare but potential complication related to COVID-19 vaccination. A

proper history and physical exam in addition to a thorough work-up are necessary for prompt recognition of this condition. Initial treatment should consist of steroids followed by IVIG versus plasmapheresis for those not responsive to steroids.

Vaccine Volume 42, Issue 9, 2 April 2024, Pages 2212-2219

Acute disseminated encephalomyelitis and transverse myelitis following COVID-19 vaccination – A self-controlled case series analysis

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Abstract

Acute Disseminated Encephalomyelitis (ADEM) and Transverse Myelitis (TM) are within the group of immune mediated disorders of acquired demyelinating syndromes. Both have been described in temporal association following various vaccinations in Case Reports: and case series and have been evaluated in observational studies. A recent analysis conducted by The Global Vaccine Data Network (GVDN) observed an excess of ADEM and TM cases following the adenoviral vectored ChAdOx1 nCoV-19 (AZD1222) and mRNA-1273 vaccines, compared with historically expected background rates from prior to the pandemic. Further epidemiologic studies were recommended to explore these potential associations.

We utilized an Australian vaccine datalink, Vaccine Safety Health-Link (VSHL), to perform a self-controlled case series analysis for this purpose. VSHL was selected for this analysis as while VSHL data are utilised for GVDN association studies, they were not included in the GVDN observed expected analyses. The VSHL dataset contains vaccination records sourced from the Australian Immunisation Register, and hospital admission records from the Victorian Admitted Episodes Dataset for 6.7 million people. These datasets were used to determine the relative incidence (RI) of G040 (ADEM) and G373 (TM) ICD-10-AM coded admissions in the 42-day risk window following COVID-19 vaccinations as compared to control periods either side of the risk window.

We observed associations between ChAdOx1 adenovirus vector COVID-19 vaccination and ADEM (all dose RI: 3.74 [95 %CI 1.02,13.70]) and TM (dose 1 RI: 2.49 [95 %CI: 1.07,5.79]) incident admissions. No associations were observed between mRNA COVID-19 vaccines and ADEM or TM. These findings translate to an extremely small absolute risk of ADEM (0.78 per million doses) and TM (1.82 per million doses) following vaccination; any potential risk of ADEM or TM should be weighed against the well-established protective benefits of vaccination against COVID-19 disease and its complications.

This study demonstrates the value of the GVDN collaboration leveraging large population sizes to examine important vaccine safety questions regarding rare outcomes, as well as the value of linked population level datasets, such as VSHL, to rapidly explore associations that are identified.

Case Reports: Bull Natl Res Cent. 2023;47(1): 5.

doi: 10.1186/s42269-023-00981-7. Epub 2023 Jan 9.

Acute disseminated encephalomyelitis following the COVID-19 vaccine Ad26.COV2.S, a case report

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PMID: 36643729 PMCID: PMC9828362 doi: 10.1186/s42269-023-00981-7

Abstract

Background: The severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) pandemic has been leading to dramatic health, social and economic problems around the world. It was necessary to introduce worldwide vaccination program against SARS-CoV-2 virus. Vaccination of billions of people around the world leads to many questions about risk of vaccines and possible side effects. It is well known that acute disseminated encephalomyelitis (ADEM) is a rare, but possible complication of vaccines. Previously, cases of ADEM following various COVID-19 vaccines, including the vaccines from AstraZenica, Pfizer, Sputnik V, SinoVac, Moderna, Sinopharm, have been described. In this case report, we present the first documented case of ADEM following the COVID-19 vaccine Ad26.COV2.S from Johnson & Johnson.

Case presentation: We present the case of a 31-year-old female with gradually progression of right-sided weakness and numbness during a three-week period. Four weeks prior to symptom onset, the patient received the single-dose SARS-CoV-2 vaccine Ad26.COV2.S. Neuroimaging revealed five large juxtacortical T2 FLAIR hyperintense lesions with incomplete contrast enhancement on post-contrast T1 images located supratentorial: one in the right cerebral hemisphere and four in left cerebral hemisphere. The patient was followed up for four months. Symptom debut, clinical picture and MRI were typical for ADEM and the patient completely recovered after high dose intravenous methylprednisolone treatment.

Conclusions: This is, to the best of our knowledge, the first case report of ADEM following the COVID-19 vaccine Ad26.COV2.S. This case illustrates, although ADEM is a rare complication following SARS-CoV-2 vaccines, the necessity of maintaining a vaccine safety monitoring system to identify patients at high risk from developing severe complications from the vaccines.

Case Reports: Ann Clin Transl Neurol. 2021 Oct;8(10): 2000-2003.

doi: 10.1002/acn3.51447. Epub 2021 Sep 4.

Acute disseminated encephalomyelitis in a patient vaccinated against SARS-CoV-2

Karolina Kania, Wojciech Ambrosius, Elzbieta Tokarz Kupczyk, Wojciech Kozubski

PMID: 34480527 PMCID: PMC8528462 doi: 10.1002/acn3.51447

Abstract

Acute disseminated encephalomyelitis (ADEM) is a demyelinating disease, and there are some data that link this event with various vaccinations. We report a young female admitted to the hospital with headache, fever, back pain, nausea, vomiting, and urinary retention. Two weeks prior, she received the first dose of SARS-CoV-2 mRNA vaccine. Brain and spinal cord magnetic resonance imaging (MRI) showed distinctive for ADEM widespread demyelinating lesions. The patient was successfully treated with methylprednisolone.

Case Reports: BMC Neurol. 2022 Feb 12;22(1): 54.

doi: 10.1186/s12883-022-02575-8.

Acute disseminated encephalomyelitis with bilateral optic neuritis following ChAdOx1 COVID-19 vaccination

Sai A Nagaratnam, Alex C Ferdi, John Leaney, Raymond Lam Kwong Lee, Yun Tae Hwang, Robert Heard

PMID: 35151258 PMCID: PMC8840677 doi: 10.1186/s12883-022-02575-8

Abstract

Background: Acute disseminated encephalomyelitis (ADEM) is a rare immune-mediated inflammatory demyelinating disease of the central nervous system. We report a case of ADEM presenting with bilateral optic neuritis temporally associated with the ChAdOx1 vaccine against SARS-COVID19 virus.

Case presentation: A 36-year-old female presented with bilateral optic neuritis following her first dose of the ChAdOx1 vaccine. Initial MRI Brain showed evidence of demyelination within the subcortical white matter, with no radiological involvement of the optic nerves. Visual evoked potentials were consistent with bilateral optic neuritis which was confirmed radiologically on follow up MRI. She was treated with intravenous steroids with improvement both in symptoms and radiological appearance. A pseudo-relapse occurred which was treated with a further course of intravenous steroids followed by an oral taper. The clinical, radiological and serological results were most consistent with diagnosis of ADEM.

Conclusions: ADEM is an exceedingly rare complication of ChAdOx1 vaccine despite millions of doses. While it is imperative clinicians remain aware of neurological complications of vaccines, the importance of vaccination to control a pandemic should not be undermined.

Case Reports: BMC Neurol. 2022 Aug 26;22(1): 322.

doi: 10.1186/s12883-022-02834-8.

Acute dizziness and mental alteration associated with Moderna COVID-19 vaccine: a case report

Rizaldy Taslim Pinzon, Fillia Kristyawati Haryono, Nikolaus Erik Darmawan, Mia Amelia Mutiara Salikim, Vanessa Veronica

PMID: 36028809 PMCID: PMC9412800 doi: 10.1186/s12883-022-02834-8

Abstract

Background: Due to a rising number of COVID-19 cases, the Indonesian government implemented public health programs to lower the rate. Since January 2021, one of the government's primary policies has been the COVID-19 immunization program. Recently, the Moderna messenger ribonucleic acid (mRNA) vaccine is one of the COVID-19 vaccines used in Indonesia. Based on some research, Moderna has possible side effects throughout the body, including neurological symptoms.

Case presentation: We describe a 39-year-old female with uncontrolled hypertension who showed behavioral change, communication difficulty, social withdrawal, and a confused state within 7 days from getting her first dose of the Moderna vaccine. The patient had a history of febrile convulsion in childhood. An increase of neutrophil-to-lymphocyte ratio (16.9) and C-reactive protein level (31.75 mg/L) indicates ongoing inflammation. Head CT scan shows no abnormalities. She received ceftriaxone, citicoline, and methylprednisolone. The patient was discharged on the seventh day and completely recovered 1 week later. This study is the first case report of encephalopathy following the administration of the Moderna COVID-19 vaccine reported in Indonesia up to our knowledge.

Conclusion: Encephalopathy related to the Moderna COVID-19 vaccine should be acknowledged as an adverse effect of the Moderna COVID-19 vaccine.

Case Reports: Eur Rev Med Pharmacol Sci. 2022 Jan;26(1): 278-283.

doi: 10.26355/eurrev_202201_27778.

Acute embolisms in multiple arterial districts following Ad26.COV2-S vaccine

V Murru, V Cocco, C Marras, A Sestu, F Marongiu, L Saba, M E Cianchetti, A Scuteri

PMID: 35049005 doi: 10.26355/eurrev_202201_27778

Abstract

A case of multiple arterial thrombosis/embolisms in a 74-year-old Caucasian man with no other cardiovascular risk factors who received Ad26.COV2-S vaccine 16 days before is reported. The unusual presentation required a longer diagnostic workup. The clinical manifestations and the therapy-specific response suggest an unusual presentation of Vaccine-induced immune thrombotic thrombocytopenia (VITT).

Review: Hum Vaccin Immunother. 2022 Nov 30;18(5): 2082206.

doi: 10.1080/21645515.2022.2082206. Epub 2022 Jun 14.

Acute encephalitis after COVID-19 vaccination: A case report and literature review

Jhih-Jian Gao, Hung-Pin Tseng, Chun-Liang Lin, Ruei-Fong Hsu, Ming-Hsun Lee, Ching-Hsiung Liu

PMID: 35700455 PMCID: PMC9621012 doi: 10.1080/21645515.2022.2082206

Abstract

Vaccine-related immune responses are one of the causes of encephalitis. Vaccines against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2, COVID-19) have been administered worldwide due to the ongoing global pandemic; cases of SARS-CoV-2 vaccination-related encephalitis were scarcely reported. An 82-year-old female was diagnosed with acute encephalitis following her first dose of vaccination with mRNA-1273 against SARS-CoV-2. The patient presented with fever and headache five days after vaccination, followed by behavior change 17 days after vaccination. Electroencephalographic recordings revealed focal slow waves in the right frontoparietal regions. Brain MRI revealed the signal change in the right middle and posterior temporal lobe. Cerebrospinal fluid analysis showed mildly elevated protein. She responded well to steroid pulse therapy and made a full recovery. The severity of the immune response following COVID-19 vaccination may be alleviated if adequate treatment is achieved. Physicians must be alert for encephalitis after vaccination to help ensure a favorable outcome.

Case Reports: BMJ Case Rep. 2021 Jul 26;14(7): e243173.

doi: 10.1136/bcr-2021-243173.

Acute encephalitis, myoclonus and Sweet syndrome after mRNA-1273 vaccine

Gabriel Torrealba-Acosta, Jennifer C Martin, Yve Huttenbach, Catherine R Garcia, Muhammad R Sohail, Sandeep Krishna Agarwal, Carina Wasko, Eric M Bershad, Mohammad I Hirzallah

PMID: 34312136 PMCID: PMC8314742 doi: 10.1136/bcr-2021-243173

Abstract

A patient presented with fever, generalised rash, confusion, orofacial movements and myoclonus after receiving the first dose of mRNA-1273 vaccine from Moderna. MRI was unremarkable while cerebrospinal fluid showed leucocytosis with lymphocyte predominance and hyperproteinorrachia. The skin evidenced red, non-scaly, oedematous papules coalescing into plaques with scattered non-follicular pustules. Skin biopsy was consistent with a neutrophilic dermatosis. The patient fulfilled the criteria for Sweet syndrome. A thorough evaluation ruled out alternative infectious, autoimmune or malignant aetiologies, and all manifestations resolved with glucocorticoids. While we cannot prove causality, there was a temporal correlation between the vaccination and the clinical findings.

Case Reports: J Med Case Rep. 2023 May 5;17(1): 202.

doi: 10.1186/s13256-023-03831-2.

Acute encephalomyelitis in a 52-year-old male post messenger ribonucleic acid severe acute respiratory syndrome coronavirus 2 vaccination: a case report

Pamela Lamisi Alebna, Muhammad Ahmad Shahid, Timothy Brannan, Ting Shen, Valentin Marian

PMID: 37143149 PMCID: PMC10159673 doi: 10.1186/s13256-023-03831-2

Abstract

Background: Acute disseminated encephalomyelitis is a well-known, but rare, side effect of some vaccines, or symptom following a febrile illness.

Case: A 69-year-old, otherwise healthy Hispanic male presented with acute fever, confusion, and later progressive weakness after receiving the first dose of the mRNA-1273 (Moderna) severe acute respiratory syndrome coronavirus 2 vaccine. Considering the progressive deterioration of the patient, despite being on multiple immunosuppressive agents, a brain biopsy was obtained, which revealed nonspecific meningoencephalitis.

Conclusion: In this case, we highlight the need for a regulatory framework to assist clinicians and patients with coverage of treatment for acute disseminated encephalomyelitis. The use of intravenous immunoglobulin in conjunction with glucocorticoids seems to be an effective treatment option.

Case Reports: Cureus. 2021 Oct 21;13(10): e18959.

doi: 10.7759/cureus.18959. eCollection 2021 Oct.

Acute Eosinophilic Pneumonia Associated With the Anti-COVID-19 Vaccine AZD1222

Amal Miqdadi, Mohammed Herrag

PMID: 34812326 PMCID: PMC8604432 doi: 10.7759/cureus.18959

Abstract

SARS-CoV-2 is an emerging virus causing the contemporary global pandemic. No cure has yet been discovered. Therefore, vaccination remains the only hope. We report the case of a 66-year-old male patient with a history of allergies. Five hours after his vaccination with the anti-COVID-19 vaccine AZD1222 (ChAdOx1 nCoV-19, AstraZeneca), he developed acute respiratory distress. The biological assessment showed hyperleukocytosis, 20% of which are eosinophils. Diagnosis of severe postvaccination acute eosinophilic pneumonia was retained given the history of allergy, lack of improvement on antibiotics, elimination of all other probable causes of eosinophilia, and improvement on corticosteroids. Such reactions of eosinophilic pneumonia have only been described twice: once following vaccination with the influenza vaccine (Vaxigrip*) and the other after vaccination with the 23-valent pneumococcal polysaccharide vaccine (Pneumovax 23*). Hypereosinophilia must be taken into consideration, feared, and prevented. Although rare and severe, post-COVID-19 vaccination acute eosinophilic pneumonia remains well manageable with corticosteroids with a good outcome. Therefore, in some poorly monitored patients with allergy or asthma, the use of another less allergenic vaccine could be considered to avoid such reactions.

Comment: Eur Respir J. 2022 Mar 10;59(3): 2102806.

doi: 10.1183/13993003.02806-2021. Print 2022 Mar.

Acute exacerbation of idiopathic pulmonary fibrosis after SARS-CoV-2 vaccination

Tomohiro Bando, Reoto Takei, Yoshikazu Mutoh, Hajime Sasano, Yasuhiko Yamano, Toshiki Yokoyama, Toshiaki Matsuda, Kensuke Kataoka, Tomoki Kimura, Yasuhiro Kondoh

PMID: 35144990 PMCID: PMC8832376 doi: 10.1183/13993003.02806-2021

Abstract

Although the association between acute exacerbation of interstitial lung disease and vaccination is not yet clarified, this is the first case report describing the possibility that SARS-CoV-2 vaccination may trigger acute exacerbation https: //bit.ly/3tpu6Cz

Research Article: Clinical Case Report

Acute exacerbation of immunoglobulin A nephropathy complicated by alveolar hemorrhage after coronavirus disease 2019 vaccination: A case report

Uchida, Takahiro MD, PhDa,*; Sakai, Takashi MDa; Hoshino, Takahiko MDa; Kojima, Aki MDa; Konno, Osamu MD, PhDb; Yamada, Muneharu MD, PhDa; Iwamoto, Hitoshi MD, PhDb; Oda, Takashi MD, PhDa

Medicine 102(46): p e36091, November 17, 2023. | doi: 10.1097/MD.0000000000036091

Abstract

Rationale: Reports have suggested a relationship between coronavirus disease 2019 (COVID-19) vaccination and new-onset or recurring renal diseases, of which immunoglobulin A (IgA) nephropathy is a representative disease. Alveolar hemorrhage in patients with IgA nephropathy is rare but reportedly has a high mortality and morbidity. To our knowledge, there have been no reports regarding the development of IgA nephropathy with alveolar hemorrhage following COVID-19 vaccination.

Patient's concern: A 23-year-old Japanese man presented with hemoptysis and peripheral edema a few days after receiving a second dose of a COVID-19 mRNA vaccine. Severe renal failure and alveolar hemorrhage were noted thereafter, and renal biopsy showed crescentic glomerulonephritis with mesangial proliferation accompanied by mesangial electron-dense deposits containing IgA. Renal biopsy tissue also showed chronic histological changes suggestive of acute exacerbation of preexisting IgA nephropathy.

Diagnosis: The diagnosis of IgA nephropathy complicated by alveolar hemorrhage was made.

Interventions and outcomes: Renal function did not recover despite treatment with high-dose steroids; the patient was maintained on hemodialysis and eventually underwent successful renal transplantation.

Lessons: The present case suggested that although extremely rare, severe renal failure requiring renal replacement therapy could occur in patients with IgA nephropathy after COVID-19 vaccination. Future accumulation of similar cases is needed to predict the risk of renal injury following vaccination.

Case Reports: Chest. 2022 Dec;162(6): e311-e316.

doi: 10.1016/j.chest.2022.08.2213.

Acute Exacerbation of Interstitial Lung Disease After SARS-CoV-2 Vaccination: A Case Series

Yoshiko Ishioka, Tomonori Makiguchi, Masamichi Itoga, Hisashi Tanaka, Kageaki Taima, Shintaro Goto, Sadatomo Tasaka

PMID: 36494131 PMCID: PMC9723271 doi: 10.1016/j.chest.2022.08.2213

Abstract

An acute exacerbation of interstitial lung disease (ILD) is an acute deterioration that can occur at any time and is associated with significant morbidity and mortality rates. We herein report three patients with ILD who experienced acute respiratory failure after SARS-CoV-2 messenger RNA vaccination. All the patients were male; the mean age was 77 years. They had a smoking history that ranged from 10 to 30 pack-years. Duration from the vaccination to the onset of respiratory failure was 1 day in two patients and 9 days in one patient. In an autopsied case, lung pathologic evidence indicated diffuse alveolar damage superimposed on usual interstitial pneumonia. In the other two cases, CT scans showed diffuse ground-glass opacities and subpleural reticulation, which suggests acute exacerbation of ILD. Two patients were treated successfully with high-dose methylprednisolone. Although benefits of vaccination outweigh the risks associated with uncommon adverse events, patients with chronic lung diseases should be observed carefully after SARS-CoV-2 vaccination.

Case Report: Proc (Bayl Univ Med Cent). 2021 Nov 15;35(2): 199-201.
doi: 10.1080/08998280.2021.2003681. eCollection 2022.

Acute exacerbation of psoriasis after COVID-19 Pfizer vaccination

Erick Daniel Lopez, Nismat Javed, Shubhra Upadhyay, Rahul Shekhar, Abu Baker Sheikh

PMID: 35256820 PMCID: PMC8607533 doi: 10.1080/08998280.2021.2003681

Abstract

The novel coronavirus (COVID-19) pandemic has caused many deaths worldwide. Managing and diagnosing dermatological conditions has become difficult during this era, especially with the widespread administration of vaccines. We report a 58-year-old man with a history of psoriasis and multiple comorbidities who presented with a worsening pruritic rash 1 week after receiving the COVID-19 Pfizer vaccine. He was treated with triamcinolone-based wet wraps, triamcinolone ointment, and hydroxyzine, which improved his rash significantly after 6 days of hospitalization.

Case Reports: Cureus. 2022 Jun 9;14(6): e25779.

doi: 10.7759/cureus.25779. eCollection 2022 Jun.

Acute Extensive Deep Vein Thrombosis After Heterogeneous Administration of Moderna mRNA Booster Vaccine: A Case Report

Farrah Alarmanazi, Bushra A Bangash, Lokesh Lahoti, Banu Farabi

PMID: 35812633 PMCID: PMC9270722 doi: 10.7759/cureus.25779

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) struck the world in 2019 and led to the development of the multisystem coronavirus disease-2019 (COVID-19) causing a worldwide pandemic. Vaccines with boosters were developed due to novel mutations of SARS-CoV-2. Heterogeneous vaccination emerged with the perception that mixing vaccines can provide better protection. We present the case of a 68-year-old male patient who developed extensive acute deep vein thrombosis (DVT) of the left lower extremity, two weeks following the Moderna mRNA booster vaccine (mRNA-1273). His first two doses were AstraZeneca ChAdOx1-S [recombinant]. He was started on a heparin drip and prescribed rivaroxaban. We discuss the possible etiology of this DVT, the mechanism of action of the Moderna mRNA vaccine, the association of DVT with vaccine-induced inflammation, implications of heterogeneous vaccine combinations, and recommendations to advise people on possible thrombogenic adverse effects prior to mRNA vaccine administration.

Case Reports: Front Cardiovasc Med. 2022 Apr 21: 9: 856991.

doi: 10.3389/fcvm.2022.856991. eCollection 2022.

Acute Fulminant Myocarditis After ChAdOx1 nCoV-19 Vaccine: A Case Report and Literature Review

Chia-Tung Wu, Shy-Chyi Chin, Pao-Hsien Chu

PMID: 35528839 PMCID: PMC9068965 doi: 10.3389/fcvm.2022.856991

Abstract

According to recent literatures, myocarditis is an uncommon side effect of mRNA vaccines against COVID-19. On the other hand, myocarditis after adenovirus based vaccine is rarely reported. Here we report a middle-aged healthy female who had acute fulminant perimyocarditis onset 2 days after the first dose of ChAdOx1 vaccine (AstraZeneca) without any other identified etiology. Detailed clinical presentation, serial ECGs, cardiac MRI, and laboratory data were included in the report. Possible mechanisms of acute myocarditis after adenoviral vaccine was reviewed and discussed. To our knowledge, a few cases of myocarditis after Ad26.COV2.S vaccine were reported, and this is the first case report after ChAdOx1 vaccine.

Case Reports: J Pediatr. 2022 Jul: 246: 271-273.

doi: 10.1016/j.jpeds.2022.04.005. Epub 2022 Apr 9.

Acute Genital Ulceration After Severe Acute Respiratory Syndrome Coronavirus 2 Vaccination and Infection

Tina Hsu, Jacquelyn R Sink, Veronica I Alaniz, Lida Zheng, Anthony J Mancini

PMID: 35413297 PMCID: PMC8994214 doi: 10.1016/j.jpeds.2022.04.005

Abstract

Reactive, nonsexually related acute genital ulceration, also known as Lipschütz ulcer, is a nonsexually related ulceration involving the vulva, most commonly affecting girls and adolescent women in response to infection. Herein, we describe 3 female patients with acute genital ulceration occurring after severe acute respiratory syndrome coronavirus 2 vaccination or natural infection.

Case Reports: Clin Nephrol. 2022 Apr;97(4):242-245.

doi: 10.5414/CN110753.

Acute interstitial nephritis following SARS-CoV-2 virus vaccination

Shaw Kang Liew, Beena Nair, Beng So, Arvind Ponnusamy, Andrew Bow, Alexander Woywodt

PMID: 35113012 DOI: 10.5414/CN110753

Abstract

A number of reports have described new onset or relapse of existing glomerular disease after severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination. More and more of these cases continue to emerge, and the European Medicines Agency (EMA) has recently launched an in-depth investigation to ascertain the true frequency of such renal side effects. In comparison, acute interstitial nephritis after SARS-CoV-2 vaccination has only been described in 1 solitary case. Here, we describe a case of acute kidney injury due to biopsy-proven acute interstitial nephritis soon after SARS-CoV-2 vaccination with the Astra-Zeneca vaccine. The patient responded well to steroids, although he required temporary renal replacement therapy. A thorough medical history failed to elucidate any plausible explanation or trigger other than the preceding vaccination. We acknowledge the possibility that other factors could have triggered acute interstitial nephritis in the case described here. Similar uncertainty exists regarding glomerular disease reported in conjunction with SARS-CoV-2 vaccination. However, we note that acute interstitial nephritis associated with vaccination has been described before the pandemic, and we therefore feel that a link is possible. We suggest that nephrologists should be vigilant when they see cases of unexplained acute interstitial nephritis. A history of preceding SARS-CoV-2 vaccination should be explored, and cases should be reported within national systems of pharmacovigilance.

Case Reports:

doi: https://doi.org/10.2169/internalmedicine.1631-23

Acute Interstitial Nephritis with Glomerular Capillary IgA Deposition Following SARS-CoV-2 mRNA Vaccination

Erika Hishida, Yuko Ono, Kazuho Oe, Toshimi Imai, Hiromichi Yoshizawa, Takeo Nakaya, Hirotoshi Kawata, Tetsu Akimoto, Osamu Saito, Daisuke Nagata

2023 Volume 62 Issue

Abstract

We herein report a case of acute kidney injury (AKI) presenting as acute interstitial nephritis (AIN) after the first dose of the BNT162b2 mRNA vaccine against coronavirus disease 2019 (COVID-19). A 69-year-old man with a history of diabetes and hypertension presented with AKI 4 days after receiving the vaccine. Despite the administration of methylprednisolone pulse treatment, his renal function worsened, which prompted us to initiate temporal hemodialysis. His renal function subsequently improved, and a renal biopsy confirmed AIN and glomerular capillary IgA deposition without apparent crescents. The clinical history and histological findings suggest a relationship between severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination and AIN as a rare side effect.

Case Reports: Curr Neurovasc Res. 2021;18(3):360-363.

doi: 10.2174/1567202618666210927095613.

Acute Ischaemic Stroke Incidence after Coronavirus Vaccine in Indonesia: Case Series

Rakhmad Hidayat, Dinda Diafiri, Ramdinal Aviesena Zairinal, Ghafur Rasyid Arifin, Faiza Azzahroh, Nita Widjaya, Devi Nurfadila Fani, Taufik Mesiano, Mohammad Kurniawan, Al Rasyid, Astuti Giantini, Salim Haris

PMID: 34579636 PMCID: PMC9241071 DOI: 10.2174/1567202618666210927095613

Abstract

Background: Coronavirus disease-19 (COVID-19) is an infectious disease with high morbidity and mortality rates. Indonesia had reported a 2.8% of mortality rate up to June 2021.

Case presentation: A strategy to control the virus spreading is by vaccination. The Indonesian Food and Drug Monitoring Agency had approved the use of CoronaVac, an inactivated virus vaccine developed by Sinovac. Most Adverse Events Following Immunization (AEFI) for Corona- Vac are mild, and the most common symptoms are injection-site pain, headache, and fatigue. Neurovascular adverse events, including thrombosis or ischaemic stroke after receiving CoronaVac have not previously been reported.

Conclusion: Correspondingly, we reported three patients with an Acute Ischaemic Stroke (AIS) after the administration of CoronaVac in our hospital.

Case Reports: J Stroke Cerebrovasc Dis. 2021 Sep;30(9):105942.

doi: 10.1016/j.jstrokecerebrovasdis.2021.105942. Epub 2021 Jun 24.

Acute Ischemic Stroke Revealing ChAdOx1 nCov-19 Vaccine-Induced Immune Thrombotic Thrombocytopenia: Impact on Recanalization Strategy

Guillaume Costentin, Ozlem Ozkul-Wermester, Aude Triquenot, Véronique Le Cam-Duchez, Nathalie Massy, Ygal Benhamou, Evelyne Massardier

PMID: 34175640 DOI: 10.1016/j.jstrokecerebrovasdis.2021.105942

Abstract

Vaccine-induced immune thrombotic thrombocytopenia is a rare syndrome following the ChAdOx1 nCov-19 or Ad26.COV2.S vaccine. Reported patients developed mainly venous thrombosis. We describe a case of a young healthy women suffering from acute ischemic stroke due to large vessel occlusion without cerebral venous thrombosis 8 days after vaccination and its consequences on recanalization strategy. Considering the thrombocytopenia, intravenous thrombolysis was contraindicated. She underwent mechanical thrombectomy with complete recanalization and dramatically improved clinically. Positive detection of anti-PF4-heparin-antibodies confirmed vaccine-induced immune thrombotic thrombocytopenia diagnosis. In case of acute ischemic stroke after recent ChAdOx1 nCov-19 or Ad26.COV2.S vaccine, platelet count should be systematically checked before giving thrombolysis, and direct mechanical thrombectomy should be proposed in patients with large vessel occlusion.

Case Reports: West Afr J Med. 2022 Jul 31;39(7):769-771.

Acute Kidney Injury after First Dose of AstraZeneca COVID-19 Vaccine Managed in a Nigerian Hospital

A E Onukak, E E Akpan, A I A Udo, M K Kalu

PMID: 35929534

Abstract

Introduction: The association of kidney disease and COVID-19 vaccination has been reported with minimal change disease being a common presentation.

Case report: Index patient is a 54-year-old female who presented with a history of reduction in urine output within 3 weeks of receiving the Oxford-AztraZeneca COVID-19 vaccine. Her serum creatinine on admission was 1,057 μmol/L with a premorbid serum creatinine of 78 μmol/L. Her vital signs were stable. She was on antihypertensive and antidiabetic medications for hypertension and diabetes mellitus, respectively. Renal biopsy was precluded by her morbid obesity and she was commenced on oral prednisolone. She had 5 sessions of hemodialysis and her serum creatinine gradually reduced to 106 μmol/L, and she is being followed up on an outpatient basis.

Conclusion: We report a case of a female patient with acute kidney injury following COVID-19 Oxford-AztraZeneca vaccination. Further studies are required to better understand the pathogenesis of the renal affectation post-vaccination.

Case Reports: NPJ Vaccines. 2022 Mar 2;7(1):30.

doi: 10.1038/s41541-022-00445-5.

Acute kidney rejection after anti-SARS-CoV-2 virus-vectored vaccine-case report

Matej Vnučák, Karol Graňák, Monika Beliančinová, Miloš Jeseňák, Katarína Kajová Macháleková, Jakub Benko, Matej Samoš, Ivana Dedinská

PMID: 35236844 PMCID: PMC8891308 DOI: 10.1038/s41541-022-00445-5

Abstract

COVID-19 infection remains a threat to the health systems of many countries. Potential success in the fight against the COVID-19 pandemic is the vaccination of high-risk groups, including patients with end-stage kidney disease (ESKD) and after solid organ transplantation (SOT). Immunosuppression in kidney transplant recipients can also reduce the immunogenicity of SARS-CoV-2 vaccines (varied by vaccine platform), available data suggest that they are efficacious in approximately 50-70%, compared to non-transplant situations. In this paper, we present a newly developed acute humoral and cellular rejection with acute allograft failure and need of hemodialysis 14 days after administration of the adenovirus vectored SARS-CoV-2 vaccine (AstraZeneca; CHADOx1, AZD1222). This occurred in a patient who previously had an asymptomatic COVID-19 infection. Case reports of acute allograft rejection after vaccination against SARS-CoV-2 can help stratify risk groups of patients who develop hyperimmune reactions. However, it is also possible that those with a previous mild primary COVID-19 infection may also develop acute allograft rejections upon COVID-19 re-infection.

Case Reports: Respir Med Case Rep. 2022:35:101568.

doi: 10.1016/j.rmcr.2021.101568. Epub 2021 Dec 14.

Acute liver failure after vaccination against of COVID-19; a case report and review literature

Masoudreza Sohrabi, Elham SobheRakhshankhah, Hosein Ziaei, Manizhe AtaeeKachuee, Farhad Zamani

PMID: 34926142 PMCID: PMC8668601 DOI: 10.1016/j.rmcr.2021.101568

Abstract

Background: Vaccination against COVID-19 remains as a main root of COVID-19 prevention. Few vaccines have been launched for this purpose recently with different side effects. Thrombotic events have been reported as a rare side effect after ChAdox1nCOV-19 vaccination that may cause death of recipient.

Case presentation: We report a case of hepatic artery occlusion after the first dose vaccination by ChAdOx1nCov-19. The patient was a health care worker, aged 34-year old. Past medical history was unremarkable and had not used heparin. Over the next couple of days after the vaccination, he reported headache, nausea, and dizziness as well as abdominal pain. His general status and the laboratories studies deteriorate quickly by increasing liver enzymes and severe coagulopathy. Clinically he had presented acute hepatic failure. He had been received blood products, prednisolone pulse along with broad antibiotics without benefit. He died on the sixth day.

Conclusions: Thrombotic events after vaccination is very rare but can develop in main arteries with lethal outcome. This event may mimic autoimmune thrombosis clinically.

Case Reports: Hepatol Forum. 2022 Sep 23;3(3):97-99.

doi: 10.14744/hf.2022.2022.0019. eCollection 2022 Sep.

Acute liver injury and IgG4-related autoimmune pancreatitis following mRNA-based COVID-19 vaccination

Ankoor H Patel, Rajan Amin, Alexander T Lalos

PMID: 36177105 PMCID: PMC9510734 DOI: 10.14744/hf.2022.2022.0019

Abstract

IgG4-related disease (IgG4-RD) is a fibro-inflammatory disease that can affect multiple organs. Autoimmune pancreatitis type 1 is a manifestation of IgG4-RD and can often mimic tumor-like masses. Autoimmune phenomena following COVID-19 mRNA vaccination are being increasingly reported. Currently, there are no cases in which IgG4-RD involving the hepatobiliary system has been reported following the COVID-19 vaccination. We present the first case of IgG4-RD and AIP type 1 to be associated with the mRNA-based COVID-19 vaccination.

Case Reports: Thromb J. 2022 Jul 4;20(1):38.

doi: 10.1186/s12959-022-00398-8.

Acute lower limb ischemia caused by vaccine-induced immune thrombotic thrombocytopenia: focus on perioperative considerations for 2 cases

Guillaume Roberge, Benoit Côté, Anthony Calabrino, Nathalie Gilbert, Nathalie Gagnon

PMID: 35787808 PMCID: PMC9251912 DOI: 10.1186/s12959-022-00398-8

Abstract

Background: ChAdOx1 nCoV-19 (AstraZeneca) and Ad26COV2.S (Johnson & Johnson/Janssen) adenoviral vector vaccines have been associated with vaccine-induced immune thrombotic thrombocytopenia (VITT). Arterial thrombosis and acute limb ischemia have been described in a minority of patients with VITT. These patients usually need a revascularization, but they potentially are at a higher risk of complications. Optimal perioperative care of patients undergoing vascular surgery in acute VITT is unknown and important considerations in such context need to be described.

Cases presentations: We report 2 cases of VITT presenting with acute limb ischemia who needed vascular surgery and we describe the multidisciplinary team decisions for specific treatment surrounding the interventions. Both patients' platelet counts initially increased after either intravenous immune globulin (IVIG) or therapeutic plasma exchange (TPE). None received platelet transfusion. They both received argatroban as an alternative to heparin for their surgery. Despite persistent positivity of anti-platelet factor 4 (PF4) antibodies and serotonin-release assay with added PF4 (PF4-SRA) in both patients, only one received a repeated dose of IVIG before the intervention. Per- and post-operative courses were both unremarkable.

Conclusion: In spite of persistent anti-PF4 and PF4-SRA positivity in the setting of VITT, after platelet count improvement using either IVIG or TPE, vascular interventions using argatroban can show favorable courses. Use of repeated IVIG or TPE before such interventions still needs to be defined.

Case Reports: Case Rep Cardiol. 2023 Jun 22:2023:7646962.

doi: 10.1155/2023/7646962. eCollection 2023.

Acute Lymphocytic Myocarditis in a Young Male Post-COVID-19

Mintje Bohné, Sebastian Bohnen, Stephan Willems, Karin Klingel, Dietmar Kivelitz, Edda Bahlmann

PMID: 37397607 PMCID: PMC10310455 DOI: 10.1155/2023/7646962

Abstract

Background: Lymphocytic myocarditis is a rare form of myocarditis, associated with a high mortality rate due to a high risk of sudden cardiac death. Lymphocytic myocarditis might present as a relevant extrapulmonary manifestation after coronavirus disease 2019 (COVID-19) infection. Case presentation. We report a case of a 26-year-old male with lymphocytic myocarditis, presenting with a 1-month history of increasing fatigue, palpitations, and shortness of breath. Eight weeks before, he was tested positive for SARS-CoV-2. He had received 2-dose schedule of the COVID-19 mRNA vaccine Comirnaty® (BioNTech/Pfizer) 6 months prior to his admission. Diagnostic work-up by echocardiography and cardiac magnetic resonance (CMR) imaging demonstrated a severely reduced left ventricular function and a strong midmyocardial late gadolinium enhancement (LGE). Histology and immunohistology of the endomyocardial biopsies revealed an acute lymphocytic myocarditis. Immunosuppressive therapy with a steroid taper in combination with azathioprine 300 mg/day was initiated. The patient was equipped with a LifeVest®. On day 17, a non-sustained ventricular tachycardia was documented. Follow-up CMR imaging after 3 months showed a slightly improved systolic left ventricular function, and a strong LGE was still detectable.

Conclusions: The case highlights the significance of recognizing lymphocytic myocarditis correlated to COVID-19. It is important to be vigilant also of a later presentation of cardiomyopathy in patients diagnosed with COVID-19 due to high mortality without immediate support.

Case Reports: Am J Ophthalmol Case Rep. 2021 Dec:24:101207. doi: 10.1016/j.ajoc.2021.101207. Epub 2021 Sep 23.

Acute macular neuroretinopathy (AMN) following COVID-19 vaccination

Daniela Drüke, Uwe Pleyer, Hans Hoerauf, Nicolas Feltgen, Sebastian Bemme

PMID: 34580648 PMCID: PMC8457905 DOI: 10.1016/j.ajoc.2021.101207

Abstract

Purpose: To describe a case of acute macular neuroretinopathy (AMN) in a 23-year-old Caucasian female after a COVID-19 vaccination (Vaxzevira).

Observations: Our patient perceived visual symptoms in both eyes one day after COVID-19 vaccination. Hyporeflective petalloid shaped perifoveal lesions appeared in infrared reflectance (IR) imaging, and Spectral domain-optical coherence tomography (SD-OCT) revealed structural alterations of outer retinal layers that resulted in persistent disruption of the ellipsoid zone (EZ) and the interdigitation zone (IZ).

Conclusions and importance: We report a novel association between AMN and COVID-19 vaccination. In addition to a febrile infection and oral contraception, previous vaccination should also be considered a potential risk factor for AMN.

Case Reports: Acute macular neuroretinopathy (AMN) following COVID-19 vaccination

Daniela Drüke, Uwe Pleyer, Hans Hoerauf, Nicolas Feltgen, Sebastian Bemme

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Conclusions and importance: We report a novel association between AMN and COVID-19 vaccination. In addition to a febrile infection and oral contraception, previous vaccination should also be considered a potential risk factor for AMN.

Case Reports: Retin Cases Brief Rep. 2022 Jan 1;16(1):5-8.

doi: 10.1097/ICB.0000000000001195.

Acute Macular Neuroretinopathy After Sars-Cov-2 Vaccination

Samir N Patel, Yoshihiro Yonekawa

PMID: 34608019 DOI: 10.1097/ICB.0000000000001195

Abstract

Purpose: To present the rare case of a patient who developed acute macular neuroretinopathy (AMN) after administration of a single-dose adenovector coronavirus vaccine.

Methods: Retrospective chart review.

Results: A 26-year-old woman presented with paracentral scotomas in both eyes that acutely developed 2 days after administration of a single-dose adenovector SARS-CoV-2 vaccine (Johnson & Johnson, New Brunswick, NJ). She had previously received the seasonal influenza immunization without any symptoms and denied having any recent history of viral illnesses. On examination, optical coherence tomography showed parafoveal hyperreflective bands in the outer retina of both eyes without retinal thickening and near-infrared reflectance showed wedge-shaped parafoveal lesions pointing to the fovea, both classic findings in acute macular neuroretinopathy.

Discussion: This report highlights the development of acute macular neuroretinopathy after a SARS-CoV-2 vaccination in an otherwise healthy female patient. A single case cannot establish cause and effect, and millions of COVID-19 vaccines have been administered safely at the time of writing. However, this may be a rare association, and clinicians can consider inquiring about recent vaccination history in patients presenting with acute macular neuroretinopathy.

Case Reports: Ocul Immunol Inflamm. 2021 May 19;29(4):730-733.

doi: 10.1080/09273948.2021.1946567. Epub 2021 Jun 30.

Acute Macular Neuroretinopathy following Coronavirus Disease 2019 Vaccination

Manuela Mambretti, Josef Huemer, Giulia Torregrossa, Marlies Ullrich, Oliver Findl, Giuseppe Casalino

PMID: 34187278 DOI: 10.1080/09273948.2021.1946567

Abstract

Purpose: To report acute macular neuroretinopathy (AMN) in two young women two days after receiving Vaxzevria Coronavirus disease (COVID-19) vaccination.Methods: Observational case reports. Observation: The first patient was an Italian 22-year-old female with acute onset of paracentral scotoma two days post vaccination. The second patient was an Austrian 28-year-old female who presented with sudden onset paracentral scotoma two days after vaccination. Multimodal retinal imaging was consistent with AMN in both cases. Both patients were on long-term oral contraceptives, had no history of COVID-19 and experienced one-day duration fever the day after the vaccination.Conclusions: Vaccination may represent a possible risk factor for AMN onset in women on oral contraceptives. We encourage ophthalmologists to investigate recent vaccination status when dealing with new onset AMN. Further studies are needed to assess the link between vaccinations and AMN.

Case Reports: Cureus. 2022 Jul 31;14(7):e27502.

doi: 10.7759/cureus.27502. eCollection 2022 Jul.

Acute Macular Neuroretinopathy Following COVID-19 mRNA Vaccination

Andrew T Rennie, Alexander J DeWeerd, Maria G Martinez, Christine N Kay

PMID: 36060339 PMCID: PMC9426360 DOI: 10.7759/cureus.27502

Abstract

A 21-year-old female developed bilateral acute-onset paracentral scotomas three days after receiving the second dose of her Moderna COVID-19 vaccination. A clinical diagnosis of acute macular neuroretinopathy (AMN) was confirmed after classic findings were demonstrated on near-infrared reflectance imaging, spectral-domain optical coherence tomography, and colored fundus photography. The patient presented with visual acuity of 20/100-1 OD and 20/20 OS. After treatment with brimonidine and difluprednate, at a two-week follow-up, her visual acuity was 20/100-2 OD and 20/25-2 OS. There have been reported cases of AMN following flu-like illnesses as well as after receiving vaccines. However, this is the first report of AMN following vaccination with a Moderna COVID-19 vaccine.

Case Reports: J Ophthalmic Inflamm Infect. 2023 Jun 29;13(1):30.

doi: 10.1186/s12348-023-00354-1.

Acute macular neuroretinopathy following Moderna COVID-19 vaccination

Olena Protsyk, Roberto Gallego-Pinazo, Rosa Dolz-Marco

PMID: 37382778 PMCID: PMC10310672 DOI: 10.1186/s12348-023-00354-1

Abstract

Purpose: To describe the occurrence of an acute macular neuroretinopathy (AMN) after administration of a Moderna COVID-19 Vaccine.

Methods: Case report.

Results: A 23-year-old female presented bilateral visual loss one week after the first dose of COVID-19 vaccine. Fundus examination revealed the classic wedge-shaped lesions with petaloid configuration around both foveas. Hypo-reflective macular lesions are evident in the near-infrared reflectance image. The spectral-domain optical coherence tomography reveled hyperreflectivity of the outer nuclear and plexiform layers, attenuation of the ellipsoid zone and disruption of interdigitation zone corresponding to the lesions.

Conclusions: Despite the large number of doses of COVID-19 vaccines administered worldwide, there are not many reported cases of AMN. Most of them occurred after viral vector vaccines. Described here is one of the few cases that observed a time period of several days after receiving the Moderna messenger RNA vaccine. It is not possible to establish causality although this suggests an inflammatory or autoimmune response to the vaccine.

Case Reports: Am J Ophthalmol Case Rep. 2021 Dec:24:101200.

doi: 10.1016/j.ajoc.2021.101200. Epub 2021 Sep 1.

Acute macular neuroretinopathy following Pfizer-BioNTech COVID-19 vaccination

Daniel A Valenzuela, Sylvia Groth, Kenneth J Taubenslag, Sapna Gangaputra

PMID: 34485760 PMCID: PMC8409052 DOI: 10.1016/j.ajoc.2021.101200

Abstract

Purpose: To describe a case of acute macular neuroretinopathy (AMN) in a patient immediately following administration of the Pfizer-BioNTech COVID-19 vaccine.

Observations: The patient complained of paracentral scotoma supported by paracentral visual field loss on multiple Humphrey visual fields that corresponded to outer retinal pathology on optical coherence tomography. The patient's symptoms resolved without treatment.

Conclusions and importance: We conclude that the clinical testing demonstrated findings consistent with AMN. AMN may be an exceedingly rare adverse ocular effect of a novel vaccine and likely only in the setting of multiple other risk factors. Despite this, we strongly recommend vaccination against COVID-19.

Case Reports:Children (Basel). 2021 Dec 31;9(1):29.

doi: 10.3390/children9010029.

Acute Mild Pancreatitis Following COVID-19 mRNA Vaccine in an Adolescent

Ahmad Kantar, Manuela Seminara, Marta Odoni, Ilaria Dalla Verde

PMID: 35053654 PMCID: PMC8774474 DOI: 10.3390/children9010029

Abstract

A 17-year-old male was referred to the emergency room with sharp abdominal pain, pallor, sweating, and vomiting 12 h after the administration of his first Pfizer-BioNTech vaccine for coronavirus disease 2019 (COVID-19). He had abdominal pain, an increase in serum lipase value of > 3 times the upper limits of normal, and magnetic resonance imaging (MRI) findings consistent with acute mild pancreatitis (AP). He was started on treatment with fluid therapy and non-steroidal anti-inflammatory drugs for pain management, after which he recovered rapidly and was discharged on the fourth day after hospitalization. The available data are difficult to interpret as AP is a relatively frequent disease, but its occurrence after vaccination seems extremely rare. Although it is a rare event, AP should be considered after COVID-19 vaccination, especially in those exhibiting abdominal tenderness and vomiting, which should be promptly treated and adequately investigated.

Case Reports: Ocul Immunol Inflamm. 2023 Jan;31(1):220-223.

doi: 10.1080/09273948.2021.1995763. Epub 2021 Dec 1.

Acute Multifocal Placoid Pigment Epitheliopathy-like Presentation following the First Dose of BNT162B2 COVID-19 Vaccination

Ferdane Atas, Mahmut Kaya, Ali Osman Saatci

PMID: 34851236 DOI: 10.1080/09273948.2021.1995763

Abstract

Purpose: To report a case with acute posterior multifocal placoid pigment epitheliopathy (APMPPE)-like presentation following the first dose of BNT162b2 COVID-19 vaccination.

Case report: An otherwise healthy 45-year-old woman presented with a headache and blurred vision in her right eye 7 days after the administration of first dose of mRNA (BNT162b2) COVID-19 vaccine. Fundus examination of the right eye revealed multiple discrete yellow-white placoid lesions at the level of deep retinal layers throughout the posterior pole, while left fundus was unremarkable at that time. Swept source-optical coherence tomography (SS-OCT) showed subretinal fluid together with an appearance of bacillary layer detachment at the right macula. A detailed systemic evaluation was carried out without any positive finding. Two weeks after the initial eye examination, similar multiple placoid lesions were observed in her left eye. Fundus lesions almost totally resolved without any treatment bilaterally 5 weeks after the onset of initial symptoms.

Conclusion: To the best of our knowledge, this is the first report of APMPPE-like presentation described after the BNT162b2 COVID-19 vaccination. Previous COVID-19 vaccination should be kept in mind in the differential diagnosis of APMPPE disease spectrum.

Case Reports: Cureus. 2022 Apr 10;14(4):e24017.

doi: 10.7759/cureus.24017. eCollection 2022 Apr.

Acute Multiple Sclerosis Exacerbation After Vaccination With the Johnson & Johnson COVID-19 Vaccine: Novel Presentation and First Documented Case Report

Younus Al-Midfai, Winy Kujundzic, Simrun Uppal, Darby Oakes, Sardinas Giezy

PMID: 35547449 PMCID: PMC9090220 DOI: 10.7759/cureus.24017

Abstract

Multiple sclerosis (MS) is a neurologic disease caused by a chronic autoimmune process resulting in the demyelination of axons within the central nervous system. MS occurs through combined genetic susceptibility and environmental triggers. MS relapses (MSR) are characterized by acute inflammatory reactions and symptoms. Here we present a novel case of MSR following the second dose of the Johnson & Johnson coronavirus disease 2019 (COVID-19) vaccine (Johnson & Johnson, New Brunswick, New Jersey, United States), presenting with paresthesias and left foot deficit. Additional research and studies are necessary to explore the relationship of COVID-19 vaccinations with MSR.

Case Reports: J Neuroimmunol. 2021 Oct 15:359:577686.

doi: 10.1016/j.jneuroim.2021.577686. Epub 2021 Jul 31.

Acute myelitis and ChAdOx1 nCoV-19 vaccine: Casual or causal association?

Elisa Vegezzi, Sabrina Ravaglia, Gabriele Buongarzone, Paola Bini, Luca Diamanti, Matteo Gastaldi, Paolo Prunetti, Elisa Rognone, Enrico Marchioni

PMID: 34392078 PMCID: PMC8325554 DOI: 10.1016/j.jneuroim.2021.577686

Abstract

A 44-year-old previously healthy woman developed acute myelitis in close temporal relationship with ChAdOx1 nCoV-19 vaccine first-dose administration. The neurological involvement was mainly sensory with neuroimaging showing two mono-metameric lesions involving the posterior and lateral cord at dorsal level. Significant improvement was promptly recorded with high-dose intravenous steroids, with complete recovery within one month. The strict temporal relationship between vaccination and myelitis, together with the absence of clues pointing to alternative diagnoses, might suggest a conceivable role for anti-SARS-CoV-2 vaccine as immunological trigger, although a causal relationship has yet to be established and our preliminary observation suggests caution.

Case Reports: Cureus. 2022 Jan 24;14(1):e21544.

doi: 10.7759/cureus.21544. eCollection 2022 Jan.

Acute Myocardial Infarction After Coronavirus Vaccine: A Rare Adverse Effect

Sameen Iqbal, Ghufran Adnan, Awais Farhad, Intisar Ahmed, Muhammad Nasir Rahman

PMID: 35223317 PMCID: PMC8865600 DOI: 10.7759/cureus.21544

Abstract

A 61-year-old male presented to the emergency department with left arm and jaw pain for three hours which started 90 minutes after receiving the first dose of Moderna vaccine for coronavirus disease 2019 (COVID-19). He had a prior history of ischemic heart disease. Initial investigations confirmed the diagnosis of acute coronary syndrome. The patient was managed for non-ST-elevation myocardial infarction and percutaneous coronary intervention to the right posterior descending artery was done, and he was discharged after two days of hospital stay. As the patient was doing well for many years and was compliant with medications, this event was likely triggered by the coronavirus vaccine. Healthcare providers should be aware of the side effects of the vaccine and further investigations should be carried out in high-risk patients before vaccination. However, worldwide coronavirus vaccination programs play a significant role to halt this pandemic and these rare adverse side effects of the vaccine should never discourage people from the vaccination but monitoring of evolving data by the concerned authorities is very important so that these events can be prevented in future.

Case Reports: Cureus. 2022 May 31;14(5):e25536.

doi: 10.7759/cureus.25536. eCollection 2022 May.

Acute Myocardial Infarction After COVID-19 Vaccination: A Case Report

Animesh Mishra, Ojing Komut, Arun Kumar, Tony Ete, Rinchin D Megeji

PMID: 35800833 PMCID: PMC9246448 DOI: 10.7759/cureus.25536

Abstract

Following the coronavirus disease 2019 (COVID-19) pandemic, nations all over the world started vaccination programs against the SARS-CoV2 virus. With the widespread administration of the vaccine across the globe, various cases were reported with thrombotic events after vaccination. Here, we are presenting a case of acute anterior wall myocardial infarction (AWMI) after ChAdOx1 nCoV- 19 corona virus (recombinant) vaccination. A 68-year-old male who was a known case of hypertension, non-smoker on antihypertensive took COVISHIELD vaccination and presented with acute anterior wall myocardial infarction within 12 hours and was taken up for primary angioplasty. On coronary angiography, mid-left anterior descending artery (LAD) was 99% stenosed. Following angiography percutaneous transluminal coronary angioplasty (PTCA), deployment of a drug eluting stent was done. Post-procedure time was uneventful. He was started on intravenous fluids and amiodarone infusion. The patient recovered and was discharged in stable condition. The leading approach to handling COVID-19 pandemic is mass vaccination. In this case, the MI after vaccination might be coincidental. We want to highlight this case as that the complication can occur during the mass vaccination programs and hence adequate precautionary measures like basic life support, EKG monitoring, and emergency ambulance services should be present in all primary and community health centers (PHC and CHC). This will help in avoiding the COVID vaccination hesitancy among the general public.

Case Reports: QJM. 2023 Apr 29;116(4):279-283.

doi: 10.1093/qjmed/hcab252.

Acute myocardial infarction and myocarditis following COVID-19 vaccination

Y N Aye, A S Mai, A Zhang, O Z H Lim, N Lin, C H Ng, M Y Chan 1, J Yip 1, P-H Loh 1, N W S Chew

PMID: 34586408 PMCID: PMC8522388 DOI: 10.1093/qjmed/hcab252

Abstract

Emerging reports raise concerns on the potential association between the COVID-19 vaccines and cardiac manifestations. We sought to evaluate cardiac complications associated with COVID-19 vaccination in a pooled analysis from our institution's cohort study and systematic review. Consecutive patients admitted to a tertiary hospital in Singapore between 1 January 2021 and 31 March 2021, with the onset of cardiac manifestations within 14 days following COVID-19 vaccination, were studied. Furthermore, a systematic review was performed, with PubMed, Embase, Research Square, MedRxiv and LitCovid databases accessed from inception up to 29 June 2021. Relevant manuscripts reporting individual patient data on cardiac complications following COVID-19 vaccination were included. Thirty patients were included in the study cohort, with 29 diagnosed with acute myocardial infarction (AMI) and 1 with myocarditis. Five patients developed heart failure, two had cardiogenic shock, three intubated, and one had cardiovascular-related mortality. In the systematic review, 16 studies were included with 41 myocarditis and 6 AMI cases. In the pooled analysis of the study cohort and the systematic review, 35 patients had AMI and 42 had myocarditis. Majority were men, and myocarditis patients were younger than AMI patients. Myocarditis patients tended to present 72 h postvaccination, while AMI patients were older and typically presented 24 h postvaccination. Majority with AMI or myocarditis developed

symptoms after the first and second vaccination dose, respectively. This pooled analysis of patients presenting with cardiac manifestations following COVID-19 vaccination highlights the differences between myocarditis and AMI presentations in temporal association with the vaccination.

Case Reports: Clin Case Rep. 2022 Oct 11;10(10):e6431.

doi: 10.1002/ccr3.6431. eCollection 2022 Oct.

Acute myocardial infarction immediately after second vaccination for coronavirus disease 2019

Atsumasa Kurozumi, Hisao Hara, Ran Nagai, Yukio Hiroi

PMID: 36245459 PMCID: PMC9552979 DOI: 10.1002/ccr3.6431

Abstract

We present a serious and rare case of acute myocardial infarction soon after the administration of second vaccination for coronavirus disease 2019. Patient's culprit lesion in the right coronary artery was identified and appropriately treated using intravascular imaging. Postvaccination monitoring of patients who are at high risk of cardiovascular diseases is critical. Rare but severe cases of acute myocardial infarction following vaccination for coronavirus disease 2019 have been reported. Physicians should consider this rare side effect as a possible differential diagnosis and appropriately manage such patients.

Case Reports : Acta Medica (Hradec Kralove) . 2021;64(3):183-186.
doi: 10.14712/18059694.2021.31.

Guillan-Barré Syndrome after First Vaccination Dose against COVID-19: Case Report

Daniel Čenščák, Leoš Ungermann, Ivana Štětkářová, Edvard Ehler

PMID: 34779385 DOI: 10.14712/18059694.2021.31

Abstract

A number of neurological complications have been reported after the administration of flu vaccine, including Guillain-Barré syndrome (GBS), especially after vaccination against swine flu. Only facial nerve neuropathy has thus far been reported after vaccination against COVID-19. More recently, there was a case of an elderly woman with GBS. In our report, we describe a case of a 42-year-old, previously almost healthy male who developed sensory symptoms 14 days after the first dose of Pfizer vaccine. One week later, the patient developed right facial nerve palsy and lower limb weakness and was no longer able to walk. Albuminocytological dissociation was detected in the cerebrospinal fluid, and there were inflammatory radicular changes in MRI scans of the lumbosacral spine. EMG indicated significant demyelinating polyradiculoneuritis and no antibodies against gangliosides were demonstrated. A 5-day course of immunoglobulins at a dose of 2 g/kg lead to a significant improvement and the patient was soon able to walk. In conclusion, we report a case of Guillan-Barré syndrome after COVID-19 vaccine in a young patient with a rapid diagnosis and prompt administration of immunoglobulins.action for the delayed reaction to

HA fillers is unknown and is likely to be multifactorial in nature. A potential mechanism of DIR to HA fillers in COVID-19 related cases is binding and blockade of angiotensin 2 converting enzyme receptors (ACE2), which are targeted by the SARS-CoV-2 virus spike protein to gain entry into the cell. Spike protein interaction with dermal ACE2 receptors favors a pro-inflammatory, loco-regional TH1 cascade, promoting a CD8+T cell mediated reaction to incipient granulomas, which previously formed around residual HA particles. Management to suppress the inflammatory response in the native COVID-19 case required high-dose corticosteroids (CS) to suppress inflammatory pathways, with concurrent ACE2 upregulation, along with high-dose intralesional hyaluronidase to dissolve the inciting HA filler. With regards to the two vaccine related cases; in the mRNA-1273 case, a low dose angiotensin converting enzyme inhibitor (ACE-I) was utilized for treatment, to reduce pro-inflammatory Angiotensin II. Whereas, in the BNT162b2 case the filler reaction was suppressed with oral corticosteroids. Regarding final disposition of the cases; the vaccine-related cases returned to baseline appearance within 3 days, whereas the native COVID-19 case continued to have migratory, evanescent, periorbital edema for weeks which ultimately subsided.

Case Reports : Rinsho Shinkeigaku. 2022 Jul 29;62(7):558-562.
doi: 10.5692/clinicalneurol.cn-001750. Epub 2022 Jun 24.

[A case of polyneuropathy after COVID-19 vaccine] [Article in Japanese]

Mari Iseki, Hiroki Nakayama, Mutsufusa Watanabe, Ayumi Uchibori, Atsuro Chiba, Saneyuki Mizutani

PMID: 35753790 DOI: 10.5692/clinicalneurol.cn-001750

Abstract

A 43-year-old-woman developed paresthesia, weakness of limbs, dysphagia and deep sensory impairment 12 days after vaccination of Pfizer COVID-19 vaccine. Her deep tendon reflexes were absent and cerebrospinal fluid showed normal cell counts and protein level. Anti-ganglioside antibodies were negative, and F wave frequency was decreased in nerve conduction studies. We diagnosed her as immune mediated polyneuropathy caused by COVID-19 vaccine, and plasma exchange improved her symptoms. Compared with Guillain-Barré syndrome and polyneuropathy following COVID-19 infection and COVID-19 vaccination, deep sensory impairment was the most characteristic of this case. We supposed that non-antigen specific mechanism played an important role in the pathogenesis of this case. COVID-19 vaccine in a young patient with a rapid diagnosis and prompt administration of immunoglobulins.action for the delayed reaction to

Review : Cosmet Dermatol. 2022 Jun;21(6):2311-2314.

doi: 10.1111/jocd.14945. Epub 2022 Apr 9.

Development of severe pemphigus vulgaris following ChAdOx1 nCoV-19 vaccination and review of literature

Ajeet Singh, Sujana J Bharadwaj, Anju G Chirayath, Satyaki Ganguly

PMID: 35348281 PMCID: PMC9115051 DOI: 10.1111/jocd.14945

Abstract

Vaccines are indeed a boon for tackling the present COVID-19 pandemic. In India, ChAdOx1 nCoV-19 (Covishield) is the most commonly used vaccine in the government vaccination program for adults more than 18 years of age. It is a recombinant vaccine developed by Oxford-Astra Zeneca and manufactured in India by Serum Institute of India (SSI). Here, we report a case of severe pemphigus vulgaris following the second dose of ChAdOx1 nCoV-19 vaccination in an adult male. The patient developed septicemia during the course of hospital stay, and he was managed with systemic steroids, parenteral antibiotics, and intravenous immunoglobulins (IVIg) along with proper wound care. Patient started improving within 1 month of therapy. This case is being reported in view of the rarity of pemphigus vulgaris following ChAdOx1 nCoV-19 vaccine.

Case Reports : Clin Case Rep. 2021 Oct 28;9(10):e05032.

doi: 10.1002/ccr3.5032. eCollection 2021 Oct.

Possible HSP reactivation post-COVID-19 vaccination and booster

Makoto Kondo, Keiichi Yamanaka

PMID: 34745629 PMCID: PMC8552090 DOI: 10.1002/ccr3.5032

Abstract

A 45-year-old woman with a history of Henoch-Schönlein (HSP) purpura received COVID-19 vaccination. The patient showed HSP reactivation after COVID-19 vaccination and booster. In HSP, autoimmune memory of vasculitis persists and might be reactivated with COVID-19 vaccination.

Case Reports : Cureus. 2021 Sep 21;13(9):e18153.

doi: 10.7759/cureus.18153. eCollection 2021 Sep.

A Rare Variant of Guillain-Barre Syndrome Following Ad26.COV2.S Vaccination

Zachary P Morehouse , Amanda Paulus, Sri A Jasti, Xue Bing

PMID: 34703690 PMCID: PMC8529941 DOI: 10.7759/cureus.18153

Abstract

Efforts to combat the global pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) range from adequate diagnostic testing and contract tracing to vaccination for the prevention of coronavirus disease 2019 (COVID-19). In the United States alone, three vaccinations have been authorized for emergency use (EUA) or approved to prevent COVID-19. The Ad26.COV2.S vaccine by Johnson and Johnson (New Brunswick, New Jersey) is the only adenovirus-based vaccine and deemed relatively effective and safe by the US Food and Drug Administration (FDA) following its clinical trial. Since its introduction, the US FDA has placed a warning on the vaccine adverse event reporting system (VAERS) after more than 100 cases of Guillain-Barre Syndrome (GBS) were reported. Herein, we outline the hospital course of a generally healthy 49-year-old female who experienced an axonal form of GBS nine days after receiving the Ad26.COV2.S vaccine.

Case Reports : Cureus. 2021 Sep 21;13(9):e18153.

doi: 10.7759/cureus.18153. eCollection 2021 Sep.

ChAdOx1 SARS-CoV-2 vaccination: A putative precipitant of adrenal crises

Deirdre Maguire, David S McLaren, Irum Rasool, Preet M Shah, Julie Lynch, Robert D Murray

PMID: 34358373 PMCID: PMC8444815 DOI: 10.1111/cen.14566

Abstract

Background: Patients with adrenal insufficiency (AI) have excess mortality, in part due to the occurrence of life-threatening adrenal crises. Infective processes, including that of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), are recognised as the major precipitant of adrenal crises. Adverse reactions to the ChAdOx1 SARS-CoV-2 vaccine occur in a significant proportion of individuals, however, are mild-moderate in the majority of cases.

Design: Case series.

Patients & results: We describe five cases where more severe adverse reactions to the ChAdOx1 SARS-CoV-2 vaccine led to actual or incipient adrenal crises requiring parenteral hydrocortisone within 24 h of receiving the first ChAdOx1 SARS-CoV-2 vaccination.

Conclusion: In individuals with adrenal insufficiency, adverse reactions to the initial dose of the ChAdOx1 SARS-CoV-2 vaccination can precipitate adrenal crises. We recommend that patients with AI should immediately increase their maintenance glucocorticoid dosage 2-3 fold on experiencing any symptoms in the initial 24 h following vaccination.

Case Reports : Cutis. 2022 Jan;109(1):E5-E7.

doi: 10.12788/cutis.0423.

Herpes Zoster Following a Nucleoside-Modified Messenger RNA COVID-19 Vaccine

Frédéric Dezoteux, Édouard Massip, Pierre Marcant, Annie Sobaszek, Marie Charlotte Chopin, Fanny Vuotto, Delphine Staumont-Sallé

PMID: 35180059 DOI: 10.12788/cutis.0423

Abstract

Herpes zoster (HZ) was suspected as a predictive cutaneous manifestation of COVID-19, with a debated prognostic significance. We report a series of 5 cases of HZ occurring after vaccination with a nucleoside-modified messenger RNA (mRNA) COVID-19 vaccine (Comirnaty, Pfizer-BioNTech). These new cases do not prove causality between COVID-19 vaccination and HZ. The pathophysiologic mechanism remains elusive, but local vaccine-induced immunomodulation may be involved. The occurrence of HZ does not justify avoiding the second injection of vaccine due to the benefit of vaccination.

Case Reports : Vaccine. 2021 Jun 29;39(29):3790-3793.

doi: 10.1016/j.vaccine.2021.05.087. Epub 2021 May 28.

Myocarditis following COVID-19 mRNA vaccination

Saif Abu Mouch, Ariel Roguin, Elias Hellou, Amorina Ishai, Uri Shoshan, Lamis Mahamid, Marwan Zoabi, Marina Aisman , Nimrod Goldschmid, Noa Berar Yanay

PMID: 34092429 PMCID: PMC8162819 DOI: 10.1016/j.vaccine.2021.05.087

Abstract

Background: Clinical trials of the BNT162b2 vaccine, revealed efficacy and safety. We report six cases of myocarditis, which occurred shortly after BNT162b2 vaccination.

Methods: Patients were identified upon presentation to the emergency department with symptoms of chest pain/discomfort. In all study patients, we excluded past and current COVID-19. Routine clinical and laboratory investigations for common etiologies of myocarditis were performed. Laboratory tests also included troponin and C-reactive protein levels. The diagnosis of myocarditis was established after cardiac MRI.

Findings: Five patients presented after the second and one after the first dose of the vaccine. All patients were males with a median age of 23 years. Myocarditis was diagnosed in all patients, there was no evidence of COVID-19 infection. Laboratory assays excluded concomitant infection; autoimmune disorder was considered unlikely. All patients responded to the BNT162b2 vaccine. The clinical course was mild in all six patients.

Interpretation: Our report of myocarditis after BNT162b2 **vaccination** may be possibly considered as an adverse reaction following immunization. We believe our information should be interpreted with caution and further surveillance is warranted.

Case Reports : J Neuroimmunol. 2022 Jan 15:362:577785.

doi: 10.1016/j.jneuroim.2021.577785. Epub 2021 Dec 9.

New diagnosis of multiple sclerosis in the setting of mRNA COVID-19 vaccine exposure

Saif Abu Mouch, Ariel Roguin, Elias Hellou, Amorina Ishai, Uri Shoshan, Lamis Mahamid, Marwan Zoabi, Marina Aisman , Nimrod Goldschmid, Noa Berar Yanay

PMID: 34922126 PMCID: PMC8656147 DOI: 10.1016/j.jneuroim.2021.577785

Abstract

Background: Multiple sclerosis (MS) with onset in the setting of acute SARS-CoV-2 virus infection has been reported, and reactivation of MS following non-mRNA COVID-19 vaccination has been noted, but there have only been three reports of newly diagnosed MS following exposure to mRNA COVID-19 vaccine. The association cannot be determined to be causal, as latent central nervous system demyelinating disease may unmask itself in the setting of an infection or a systemic inflammatory response. We report a series of 5 cases of newly diagnosed MS following recent exposure to mRNA COVID-19 vaccines. Latency from vaccination to initial presentation varied. Neurological manifestations and clinical course appeared to be typical for MS including response to high dose steroids in 4 cases and additional need for plasmapheresis in one case.

Conclusion: Acute neurological deficits in the setting of recent mRNA COVID-19 vaccine administration may represent new onset multiple sclerosis.

Review : Dermatol Ther. 2021 Nov;34(6):e15129.

doi: 10.1111/dth.15129. Epub 2021 Sep 25.

Pityriasis rosea-like cutaneous eruption as a possible dermatological manifestation after Oxford-AstraZeneca vaccine: Case report and brief literature review

Maria Cristina Pedrazini, Mariliza Henrique da Silva

PMID: 34533265 PMCID: PMC8646511 DOI: 10.1111/dth.15129

Abstract

Pityriasis rosea (PR) has been manifested in patients suffering from COVID-19 as well as after vaccine protocols against SARS-CoV-2. It has a possible association with the HHV-6B virus (roseola infantum) and can be controlled by antivirals such as acyclovir as well as by the amino acid l-Lysine that showed a positive result in reducing the number of lesions and healing time. The aim of this study was to report a case of PR after a second dose of Oxford-AstraZeneca, the adopted therapy and a brief literature review. A 53-year-old woman, phototype II, presented an erythematous lesion in the posterior right thigh 15 days after the second dose of Oxford-AstraZeneca vaccine. Eight days after the initial injury, new injuries appeared in the calf, buttocks and thighs. The diagnosis was PR with a 5-week eruption cycle. The treatment consisted of the use of l-Lysine, 3 grams loading dose and 500 mg for 30 days and moisturizing/healing lotion, starting 14 days after the herald patch. After the 5th week of the disease cycle, there were no new eruptions and the repair cycle continued for up to 8 weeks leaving some residual skin spots. It is concluded that the patient may be a carrier a latent virus, HHV-6, and the vaccine administration with

immune system stimulation, would have activated the possible virus causing PR. l-Lysine helped to control the manifestation by limiting the number of lesions and their location, which were restricted to the legs, thighs and buttocks.

Case Reports : Hum Vaccin Immunother. 2021 Dec 2;17(12):5126-5128.

doi: 10.1080/21645515.2021.2013085. Epub 2021 Dec 13.

Vestibular neuritis after COVID-19 vaccination

Junhui Jeong

PMID: 34898387 PMCID: PMC8903955 DOI: 10.1080/21645515.2021.2013085

Abstract

Coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 and presents with pneumonia as the most frequent and serious manifestation. COVID-19 vaccination is an important and urgent interest globally due to COVID-19's rapid spread and high rates of mortality and morbidity. Vestibular neuritis (VN) is an acute vestibular syndrome that causes acute and spontaneous vertigo due to unilateral vestibular deafferentiation, leading to nausea or vomiting and unsteadiness that can last from days to weeks. Reactivation of latent type 1 herpes simplex virus, autoimmune disorders, and microvascular ischemia are hypothesized to be etiologies. Herein, the case of a 54-year-old man who developed VN within three days after COVID-19 vaccination is presented. There have been no reports of VN after vaccination for COVID-19 or other viral diseases. Although the association between VN and COVID-19 vaccination remains unclear, clinicians should be aware that VN may occur as an adverse event of COVID-19 vaccination.

Case Reports : J Autoimmun. 2022 Jan:126:102782.

doi: 10.1016/j.jaut.2021.102782. Epub 2021 Dec 14.

Severe aplastic anemia after COVID-19 mRNA vaccination: Causality or coincidence?

Shotaro Tabata, Hiroki Hosoi, Shogo Murata, Satomi Takeda , Toshiki Mushino, Takashi Sonoki

PMID: 34920343 PMCID: PMC8668346 vDOI: 10.1016/j.jaut.2021.102782

Abstract

The development of various autoimmune diseases has been reported after COVID-19 infections or vaccinations. However, no method for assessing the relationships between vaccines and the development of autoimmune diseases has been established. Aplastic anemia (AA) is an immune-mediated bone marrow failure syndrome. We report a case of severe AA that arose after the administration of a COVID-19 vaccine (the Pfizer-BioNTech mRNA vaccine), which was treated with allogeneic hematopoietic stem cell transplantation (HSCT). In this patient, antibodies against the SARS-CoV-2 spike protein were detected both before and after the HSCT. After the patient's hematopoietic stem cells were replaced through HSCT, his AA improved despite the presence of anti-SARS-CoV-2 antibodies. In this case, antibodies derived from the COVID-19 vaccine may not have been directly involved in the development of AA. This case suggests that the measurement of vaccine antibody titers before and after allogeneic HSCT may provide clues to the pathogenesis of vaccine-related autoimmune diseases. Although causality was not proven in this case, further evaluations are warranted to assess the associations between vaccines and AA.

Case Reports : Cureus. 2022 May 22;14(5):e25199.

doi: 10.7759/cureus.25199. eCollection 2022 May.

Severe Rhabdomyolysis Complicated With Acute Kidney Injury Required Renal Replacement Therapy After Pfizer COVID-19 Vaccine

Turki A Banamah, Anas A Bogari, Alfaisal Neyazi, Eman Kotbi, Hatim Almaghraby, Firas Atwah

PMID: 35747054 PMCID: PMC9210739 DOI: 10.7759/cureus.25199

Abstract

The adverse effects of coronavirus disease 2019 (COVID-19) vaccines are somewhat common but rarely life-threatening. Diagnosing life-threatening vaccine-related adverse effects is heavily dependent on history taking and ruling out the other possible causes. Vaccine-related complications vary, so awareness of possible complications can lead to efficient management. We present the case of a 58-year-old woman with a history of schizophrenia who received the COVID-19 Pfizer vaccine and developed severe rhabdomyolysis. She required renal replacement therapy and fully recovered with possible transient autoimmune activity. This case highlights the importance of early awareness of adverse effects following vaccine administration and careful history taking and monitoring to avoid life-threatening conditions.to assess the associations between vaccines and AA.

Case Reports : Vaccines (Basel). 2021 Nov 17;9(11):1349.

doi: 10.3390/vaccines9111349.

Retinal Vascular Events after mRNA and Adenoviral-Vectored COVID-19 Vaccines-A Case Series

Christian Girbardt, Catharina Busch, Mayss Al-Sheikh, Jeanne Martine Gunzinger, Alessandro Invernizzi, Alba Xhepa, Jan Darius

Unterlauft, Matus Rehak

PMID: 34835280 PMCID: PMC8625395 DOI: 10.3390/vaccines9111349

Abstract

Background: To describe cases of retinal vascular events shortly after administration of mRNA or adenoviral-vectored COVID-19 vaccines.

Design: Retrospective, multicenter case series.

Methods: Six cases of retinal vascular events shortly after receiving COVID-19 vaccines.

Results: A 38-year-old, otherwise healthy male patient presented with branch retinal arterial occlusion four days after receiving his second dose of SARS-CoV-2 vaccination with Comirnaty® (BioNTech®, Mainz, Germany; Pfizer®, New York City, NY, USA). An 81-year-old female patient developed visual symptoms twelve days after the second dose of SARS-CoV-2 vaccination with Comirnaty® and was diagnosed with a combined arterial and venous occlusion in her right eye. A 40-year-old male patient noticed blurry vision five days after his first dose of SARS-CoV-2 vaccination with Comirnaty® and was diagnosed with venous stasis retinopathy in his left eye. A 67-year-old male was diagnosed with non-arteritic anterior ischemic optic neuropathy in his right eye four days

after receiving the first dose of Vaxzevria® (AstraZeneca®, Cambridge, UK). A 32-year-old man presented with a sudden onset of a scotoma two days after receiving the second dose of SARS-CoV-2 vaccination with Spikevax® (Moderna, Cambridge, UK) and was diagnosed with a circumscribed nerve fiber infarction. A 21-year-old female patient developed an acute bilateral acute macular neuroretinopathy three days after receiving the first dose of SARS-CoV2-vaccine Vaxzevria® (AstraZeneca®, Cambridge, UK).

Conclusion: This case series describes six cases of retinal vascular events shortly after receiving mRNA or adenoviral-vectored COVID-19 vaccines. The short time span between received vaccination and occurrence of the observed retinal vascular events raises the question of a direct correlation. Our case series adds to further reports of possible side effects with potential serious post-immunization complications of COVID-19 vaccinations.

Case Reports : Cureus. 2021 Jul 19;13(7):e16491.

doi: 10.7759/cureus.16491. eCollection 2021 Jul.

Drug-Induced Liver Injury After COVID-19 Vaccine

Rupinder Mann, Sommer Sekhon, Sandeep Sekhon Unterlauft,

Matus Rehak

PMID: 34430106 PMCID: PMC8372667 DOI: 10.7759/cureus.16491

Abstract

The first case of coronavirus disease 2019 (COVID-19) was reported in December 2019 in China. World Health Organization declared it a pandemic on March 11, 2020. It has caused significant morbidity and mortality worldwide. Persistent symptoms and serious complications are being reported in patients who survived COVID-19 infection, but long-term sequelae are still unknown. Several vaccines against COVID-19 have been approved for emergency use around the globe. These vaccines have excellent safety profiles with few reported side effects. Drug-induced hepatotoxicity is mainly seen with different drugs or chemicals. There are only a few reported cases of hepatotoxicity with vaccines. We present a case of liver injury after administration of the vaccine against the COVID-19 infection.

Case Reports : Clin Case Rep. 2021 Oct 28;9(10):e05032.

doi: 10.1002/ccr3.5032. eCollection 2021 Oct.

Possible HSP reactivation post-COVID-19 vaccination and booster

Makoto Kondo, Keiichi Yamanaka

PMID: 34745629 PMCID: PMC8552090 DOI: 10.1002/ccr3.5032

Abstract

A 45-year-old woman with a history of Henoch-Schönlein (HSP) purpura received COVID-19 vaccination. The patient showed HSP reactivation after COVID-19 vaccination and booster. In HSP, autoimmune memory of vasculitis persists and might be reactivated with COVID-19 vaccination.

Case Reports : Neuroimmunol. 2022 Jan 15:362:577785.

doi: 10.1016/j.jneuroim.2021.577785. Epub 2021 Dec 9.

New diagnosis of multiple sclerosis in the setting of mRNA COVID-19 vaccine exposure

Karlo Toljan, Moein Amin, Amy Kunchok, Daniel Ontaneda

PMID: 34922126 PMCID: PMC8656147 DOI: 10.1016/j.jneuroim.2021.577785

Abstract

Background: Multiple sclerosis (MS) with onset in the setting of acute SARS-CoV-2 virus infection has been reported, and reactivation of MS following non-mRNA COVID-19 vaccination has been noted, but there have only been three reports of newly diagnosed MS following exposure to mRNA COVID-19 vaccine. The association cannot be determined to be causal, as latent central nervous system demyelinating disease may unmask itself in the setting of an infection or a systemic inflammatory response. We report a series of 5 cases of newly diagnosed MS following recent exposure to mRNA COVID-19 vaccines. Latency from vaccination to initial presentation varied. Neurological manifestations and clinical course appeared to be typical for MS including response to high dose steroids in 4 cases and additional need for plasmapheresis in one case.

Conclusion: Acute neurological deficits in the setting of recent mRNA COVID-19 vaccine administration may represent new onset multiple sclerosis.

Review : J Autoimmun. 2021 Sep:123:102706.

doi: 10.1016/j.jaut.2021.102706. Epub 2021 Jul 15.

Acute autoimmune-like hepatitis with atypical anti-mitochondrial antibody after mRNA COVID-19 vaccination: A novel clinical entity?

Michele Ghielmetti, Helen Dorothea Schaufelberger, Giorgina Mieli-Vergani, Andreas Cerny, Eric Dayer, Diego Vergani, Benedetta Terziroli Beretta-Piccoli

PMID: 34293683 PMCID: PMC8279947 DOI: 10.1016/j.jaut.2021.102706

Abstract

Autoimmune phenomena and clinically apparent autoimmune diseases, including autoimmune hepatitis, are increasingly been reported not only after natural infection with the SARS-CoV-2 virus, but also after vaccination against it. We report the case of a 63-year old man without a history of autoimmunity or SARS-CoV-2 natural infection who experienced acute severe autoimmune-like hepatitis seven days after the first dose of the mRNA-1273 SARS-CoV-2 vaccine. Liver histology showed inflammatory portal infiltrate with interface hepatitis, lobular and centrilobular inflammation with centrilobular necrosis, in absence of fibrosis and steatosis. Serum immunoglobulin G was slightly elevated. Autoimmune liver serology showed an indirect immunofluorescence pattern on triple rodent tissue compatible with anti-mitochondrial antibody (AMA), but, unexpectedly, this pattern was not mirrored by positivity for primary biliary cholangitis (PBC)-specific molecular tests, indicating that this antibody is different from classical AMA.

Anti-nuclear antibody (ANA) was also positive with a rim-like indirect immunofluorescence pattern on liver and HEp2 cell substrates, similar to PBC-specific ANA; however, anti-gp210 and a large panel of molecular-based assays for nuclear antigens were negative, suggesting a unique ANA in our patient. He carries the HLA DRB1*11:01 allele, which is protective against PBC. Response to prednisone treatment was satisfactory. The clinical significance of these novel specificities needs to be further evaluated in this emerging condition.

Case Reports : Cureus. 2021 Jul 25;13(7):e16612.

Facial Diplegia: A Rare, Atypical Variant of Guillain-Barré Syndrome and Ad26.COV2.S Vaccine

Esha Jain, Krunal Pandav, Pratima Regmi, George Michel, Ida Altshuler

PMID: 34447646 PMCID: PMC8381448 DOI: 10.7759/cureus.16612

Abstract

This potentially life-threatening disease poses an interesting perspective on adverse events that can occur or can be exacerbated following the Ad26.COV2.S (Johnson & Johnson) vaccine. The authors report findings in a 65-year-old female patient who experienced facial diplegia, an atypical variant of Guillain-Barré syndrome, two weeks after receiving the Ad26.COV2.S vaccine against coronavirus disease 2019. Post-approval pharmacovigilance of each vaccine helps better understand the long-term outcomes, and reporting adverse events is crucial for advancements in medical knowledge.

Case Reports : Clin Nucl Med. 2022 May 1;47(5):e397-e398.
doi: 10.1097/RLU.0000000000004094.

COVID-19 Vaccine-Induced Multisystem Inflammatory Syndrome With Polyserositis Detected by FDG PET/CT

Soo Jin Lee, Dong Won Park, Jang Won Sohn, Ho Joo Yoon , Sang-Heon Kim

PMID: 35175945 PMCID: PMC8983611 DOI: 10.1097/RLU.0000000000004094

Abstract

Of the various adverse reactions to COVID-19 vaccines, fever is a common systemic symptom that often resolves spontaneously without treatment. However, rare vaccine-induced conditions that present with fever and systemic inflammation have been reported. In this case, a 65-year-old man with BNT162b2 mRNA COVID-19 vaccination underwent 18F-FDG PET/CT to evaluate prolonged fever and elevated serum C-reactive protein. PET/CT showed hypermetabolic infiltration in the pericardium and peritoneum suggesting immune-mediated pericarditis and peritonitis. After administration of high-dose corticosteroids, the patient's symptom resolved. This case suggests that multisystem inflammatory syndrome and polyserositis can be induced by the COVID-19 vaccine.

Case Reports : Hum Vaccin Immunother. 2021 Nov 2;17(11):4097-4098. doi: 10.1080/21645515.2021.1963173. Epub 2021 Aug 26.

Pityriasis rosea after administration of Pfizer-BioNTech COVID-19 vaccine

Olivia G Cohen, Ashley K Clark, Heather Milbar, Mordechai Tarlow

PMID: 34435935 PMCID: PMC8828149 DOI: 10.1080/21645515.2021.1963173

Abstract

Pityriasis rosea (PR) is an acute papulosquamous cutaneous disorder that classically presents with a herald patch rapidly followed by a widespread rash along skin cleavage lines. Although the exact pathogenesis of PR is unknown, current evidence suggests that an inflammatory reaction due to a viral trigger may lead to the cutaneous manifestations. COVID-19 has been reported as one such viral trigger for PR. Previously, PR has been reported in temporal association with various viral inoculations. This article presents a case of PR in a 66-year-old black male 1 week after administration of the Pfizer-BioNTech COVID-19 vaccine.

Review : J Neurol. 2022 Mar;269(3):1121-1132.

doi: 10.1007/s00415-021-10785-2. Epub 2021 Sep 5.

Acute transverse myelitis following SARS-CoV-2 vaccination: a case report and review of literature

Erum Khan, Ashish K Shrestha, Mark A Colantonio, Richard N Liberio, Shitiz Sriwastava

PMID: 34482455 PMCID: PMC8418691 DOI: 10.1007/s00415-021-10785-2

Abstract

Objective: To report a unique case and literature review of post COVID-19 vaccination associated transverse myelitis and with abnormal MRI findings.

Background: Coronavirus disease have been reported to be associated with several neurological manifestations such as stroke, Guillain-Barré syndrome, meningoencephalitis amongst others. There are only a few reported cases of transverse myelitis with the novel coronavirus (n-CoV-2). Here, we identify a post COVID-19 vaccination patient diagnosed with acute transverse myelitis.

Method: A retrospective chart review of a patient diagnosed with post SARS-CoV-2 vaccination acute transverse myelitis, and a review of literature of all the reported cases of other post vaccination and transverse myelitis, from December 1st, 2010 till July 15th, 2021, was performed.

Conclusion: To our knowledge, this is the one of early reported case of transverse myelitis and with post SARS-CoV-2 vaccination, who responded well to plasmapheresis. Further studies would be recommended to identify the underlying correlation between COVID-19 vaccination and transverse myelitis.

Case Reports : Cureus. 2021 Aug 4;13(8):e16871.

doi: 10.7759/cureus.16871. eCollection 2021 Aug.

Immune Thrombocytopenic Purpura Following Pfizer-BioNTech COVID-19 Vaccine in an Elderly Female

Ranjit B Jasaraj, Dhan B Shrestha, Suman Gaire, Mohammed Kassem

PMID: 34513446 PMCID: PMC8414938 DOI: 10.7759/cureus.16871

Abstract

Mass vaccination campaigns are being run all over the globe to combat the ongoing COVID-19 pandemic. There have been several reports of immune thrombocytopenic purpura (ITP) occurrence following COVID-19 vaccination. However, ITP due to the Pfizer-BioNTech vaccine has been rarely reported, and a causal link has not been identified. The pathophysiology behind immune thrombocytopenia is similar to heparin-induced thrombocytopenia. The management is also similar to other secondary immune thrombocytopenia. We present a case of a 67-year old female diagnosed with immune thrombocytopenia following Pfizer-BioNTech vaccination. The treatment was resistant to high-dose steroids, intravenous immunoglobulin (IVIG), and rituximab and eventually responded to a thrombopoietin-stimulating agent.

Case Reports : Clin Case Rep. 2021 Aug 24;9(8):e04689.

doi: 10.1002/ccr3.4689. eCollection 2021 Aug.

Immune thrombocytopenia in a 68-year-old woman after COVID-19 vaccination

Ashley Kenney, Anju Adhikari

PMID: 34466248 PMCID: PMC8385179 DOI: 10.1002/ccr3.4689

Abstract

This case discusses a patient who presented with immune thrombocytopenia purpura (ITP) one week after COVID-19 vaccination, introducing ITP as a consideration for a potential, but rare, adverse reaction to COVID-19 vaccination.

Case Reports : Ann Neurol. 2021 Aug;90(2):312-314.

doi: 10.1002/ana.26143. Epub 2021 Jun 22.

Guillain-Barré Syndrome following ChAdOx1-S/nCoV-19 Vaccine

Boby V Maramattom, Parameswaran Krishnan, Reji Paul, Sandeep Padmanabhan, Soumya Cherukudal Vishnu Nampoothiri,

Akheel A Syed, Halinder S Mangat

PMID: 34114256 DOI: 10.1002/ana.26143

Abstract

As of April 22, 2021, around 1.5 million individuals in three districts of Kerala, India had been vaccinated with COVID-19 vaccines. Over 80% of these individuals (1.2 million) received the ChAdOx1-S/nCoV-19 vaccine. In this population, during this period of 4 weeks (mid-March to mid-April 2021), we observed seven cases of Guillain-Barre syndrome (GBS) that occurred within 2 weeks of the first dose of vaccination. All seven patients developed severe GBS. The frequency of GBS was 1.4- to 10-fold higher than that expected in this period for a population of this magnitude. In addition, the frequency of bilateral facial weakness, which typically occurs in <20% of GBS cases, suggests a pattern associated with the vaccination. While the benefits of vaccination substantially outweigh the risk of this relatively rare outcome (5.8 per million), clinicians should be alert to this possible adverse event, as six out of seven patients progressed to areflexic quadriplegia and required mechanical ventilatory support. ANN NEUROL 2021;90:312-314.

Case Reports : Medicine (Baltimore). 2021 Dec 23;100(51):e28423.

doi: 10.1097/MD.0000000000028423.

Acute autoimmune transverse myelitis following COVID-19 vaccination: A case report

Satoshi Hirose, Makoto Hara, Kento Koda, Naotoshi Natori, Yuki Yokota, Satoko Ninomiya, Hideto Nakajima

PMID: 34941191 PMCID: PMC8701778 DOI: 10.1097/MD.0000000000028423

Abstract

Rationale: Transverse myelitis is an infectious or noninfectious inflammatory spinal cord syndrome. We report a rare case of transverse myelitis following vaccination against COVID-19.

Patient concerns: A 70-year-old male presented with progressive sensorimotor dysfunction of the bilateral lower limbs 7 days after receiving the mRNA-1273 vaccine against COVID-19. Spinal magnetic resonance imaging revealed intramedullary lesions with gadolinium enhancement on the Th1/2 and Th5/6 vertebral levels. Cerebrospinal fluid (CSF) testing showed a mildly increased level of total protein and positive oligoclonal bands (OCB).

Diagnosis: The patient was diagnosed with acute transverse myelitis.

Intervention: The patient received 5 days of intravenous methylprednisolone pulse (1000 mg/day) followed by oral prednisolone (30 mg/day with gradual tapering).

Outcomes: The patient fully recovered from muscle weakness of the lower limbs. He was discharged from our hospital and able to independently walk without unsteadiness.

Lesson: This is a rare case of transverse myelitis following COVID-19 vaccination. Positive OCB in CSF in the present case highlights the possibility of autoimmune processes, including polyclonal activation of B lymphocytes, following vaccination.

Case Reports : Intern Med. 2022 May 15;61(10):1609-1612.
doi: 10.2169/internalmedicine.8815-21. Epub 2022 Mar 12.

Acute Meningoencephalitis after COVID-19 Vaccination in an Adult Patient with Rheumatoid Vasculitis

Joe Senda, Ryosei Ashida, Kyoko Sugawara, Katsuhiro Kawaguchi

PMID:35283382 PMCID:PMC9177362 DOI:10.2169/internalmedicine.8815-21

Abstract

We herein report a 72-year-old woman with rheumatoid vasculitis who exhibited a depressed level of consciousness after receiving the first dose of the Pfizer-BioNTech mRNA BNT162b COVID-19 vaccine and was diagnosed with meningoencephalitis. Although there was no confirmatory examination, the diagnosis was based on magnetic resonance imaging (MRI) findings and etiological assessments, including microbiological and autoimmune investigations. Both intravenous steroid pulse and gammaglobulin therapies alleviated the patient's symptoms, and the MRI findings improved. Although the efficacy of COVID-19 vaccination has been widely accepted, such neurologic complications might occur in patients with rheumatoid diseases or vasculitis syndromes.

Case Reports : J Autoimmun. 2021 Sep:123:102710.

doi: 10.1016/j.jaut.2021.102710. Epub 2021 Jul 28.

Autoimmune hepatitis triggered by SARS-CoV-2 vaccination

Élise Vuille-Lessard, Matteo Montani, Jaume Bosch, Nasser Semmo

PMID: 34332438 PMCID: PMC8316013 DOI: 10.1016/j.jaut.2021.102710

Abstract

The development of autoimmune diseases has been reported after SARS-CoV-2 infection. Vaccination against SARS-CoV-2 could also trigger auto-immunity, as it has been described with other vaccines. An aberrant immune response induced by molecular mimicry and bystander activation, especially in predisposed individuals, is a potential mechanism. We report the case of a 76-year-old woman with Hashimoto thyroiditis and prior COVID-19 infection who developed severe autoimmune hepatitis (with typical features including strongly positive anti-smooth muscle antibody and markedly elevated immunoglobulins G, as well as typical histological findings) following SARS-CoV-2 vaccination (mRNA-1273 SARS-CoV-2 vaccine, Moderna®). The link between SARS-CoV-2 vaccination and the development of autoimmune diseases needs to be further investigated. Although a causality relationship cannot be proven, caution may be warranted when vaccinating individuals with known autoimmune diseases

Case Reports : Clin Exp Vaccine Res. 2021 Sep;10(3):293-297.

doi: 10.7774/cevr.2021.10.3.293. Epub 2021 Sep 30.

A case of acute encephalopathy and non-ST segment elevation myocardial infarction following mRNA-1273 vaccination: possible adverse effect?

Sabrina Yesmin Barsha, Miah Md Akiful Haque, Md Utba Rashid , Mohammad Lutfor Rahman, Mohammad Ali Hossain, Sanjana Zaman , Elias Bhuiyan, Rahima Sultana, Mosharop Hossian, Mohammad Hayatun Nabi, Mohammad Delwer Hossain Hawlader

PMID: 34703815 PMCID: PMC8511584 DOI: 10.7774/cevr.2021.10.3.293

Abstract

A 77-year-old man with a past medical history of type 2 diabetes mellitus, peripheral neuropathy, and chronic obstructive pulmonary disease was admitted to the intensive care unit of Bangladesh Medical College Hospital with acute encephalopathy and non-ST segment elevation myocardial infarction (NSTEMI). The patient was on antidiabetic medicine along with H2 blocker and multivitamins for his existing diseases. The patient's attendant reported that the patient had received his first dose of the Moderna coronavirus disease 2019 (COVID-19) vaccine just 2 days ago. Physical examination revealed that he had a Glasgow Coma Scale of 8/15; a pulse of 106 beats/min; a respiratory rate of 30 breaths/min; oxygen saturation of 80% on room air, which became with 10 L of oxygen and blood pressure of 90/60 mm Hg at the time of admission. During the hospital stay, the patient was treated conservatively with intravenous antibiotics and other necessary medication. Although we have observed the onset of encephalopathy and NSTEMI following COVID vaccination for this patient, we, as

healthcare professionals, cannot directly attribute the cause of the complications to the Moderna vaccine without further epidemiological studies with large samples.knowledge, this is the first report of the possible association between COVID-19 ChAdOx1 nCoV-19 AZD1222 and the onset of HSP in a previously healthy woman. No similar cases were reported amongst 23.848 participants in the ChAdOx1 nCoV-19 AZD1222 trial.

Case Reports : Vaccines (Basel). 2021 Sep 25;9(10):1078.

doi: 10.3390/vaccines9101078.

Henoch-Schönlein Purpura Following the First Dose of COVID-19 Viral Vector Vaccine: A Case Report

Maria Maddalena Sirufo, Martina Raggiunti , Lina Maria Magnanimi, Lia Ginaldi, Massimo De Martinis

PMID: 34332438 PMCID: PMC8316013 DOI: 10.1016/j.jaut.2021.102710

Abstract

The development of autoimmune diseases has been reported after SARS-CoV-2 infection. Vaccination against SARS-CoV-2 could also trigger auto-immunity, as it has been described with other vaccines. An aberrant immune response induced by molecular mimicry and bystander activation, especially in predisposed individuals, is a potential mechanism. We report the case of a 76-year-old woman with Hashimoto thyroiditis and prior COVID-19 infection who developed severe autoimmune hepatitis (with typical features including strongly positive anti-smooth muscle antibody and markedly elevated immunoglobulins G, as well as typical histological findings) following SARS-CoV-2 vaccination (mRNA-1273 SARS-CoV-2 vaccine, Moderna®). The link between SARS-CoV-2 vaccination and the development of autoimmune diseases needs to be further investigated. Although a causality relationship cannot be proven, caution may be warranted when vaccinating individuals with known autoimmune diseases

Case Reports : J Transl Autoimmun. 2022:5:100140.

doi: 10.1016/j.jtauto.2022.100140. Epub 2022 Jan 4.

COVID-19 vaccine and autoimmunity. A new case of autoimmune hepatitis and review of the literature

Laura Camacho-Domínguez, Yhojan Rodríguez, Fernando Polo , Juan Carlos Restrepo Gutierrez, Elizabeth Zapata, Manuel Rojas , Juan-Manuel Anaya

PMID: 35013724 PMCID: PMC8730708 DOI: 10.1016/j.jtauto.2022.100140

Abstract

Autoimmunity following COVID-19 vaccination has been reported. Herein, a 79-year-old man with clinical and immunological features of autoimmune hepatitis type 1 after ChAdOx1 nCoV-19 vaccination is presented. Clinical manifestations rapidly remitted after the instauration of immunomodulatory management. This case, together with a comprehensive review of the literature, illustrates the association between COVID-19 vaccines and the development of autoimmune conditions.

Case Reports : Clin Nucl Med. 2022 May 1;47(5):e403-e405.

doi: 10.1097/RLU.0000000000004115.

Systemic Vasculitis Following SARS-CoV-2 mRNA Vaccination Demonstrated on FDG PET/CT

Koya Nakatani, Etsuro Sakata, Masakazu Fujihara, Kaoru Mizukawa, Takashi Koyama

PMID: 35175942 PMCID: PMC8983613 DOI: 10.1097/RLU.0000000000004115

Abstract

Causality regarding adverse events following SARS-CoV-2 mRNA vaccine is undetermined for vasculitis. Herein, we report the case of an 80-year-old man who presented with a persistent high fever of 7 days' duration that began shortly after receiving a COVID-19 vaccination. There was also a complaint of persistent lower limb pain and walking difficulty on emergency transportation. FDG PET/CT demonstrated extensive linear hypermetabolic foci along the vessels of both legs, including the hips, and the arms, supraclavicular area, chest wall, and temporal regions, suggesting systemic vasculitis. Subsequent temporal artery biopsy revealed arteritis, which is not typical of giant cell arteritis.

Case Reports : J Prim Care Community Health. 2021 Jan-Dec:12:21501327211051933.

doi: 10.1177/21501327211051933.

A Case of COVID-19 Vaccine Associated New Diagnosis Myasthenia Gravis

Augustine Chavez, Charlotte Pougnier

PMID: 34709075 PMCID: PMC8559213 DOI: 10.1177/21501327211051933

Abstract

An 82-year-old man presented with intermittent episodes of slurred speech during his evening meals after receiving the BNT162b2 COVID-19 vaccine. Thorough evaluation was conducted including lab work and EMG confirming a new diagnosis of late-onset myasthenia gravis. Despite treatment, the patient progressed rapidly to severe exacerbation requiring intubation and placement of a PEG tube. Infections provoking new diagnosis and exacerbations of myasthenia gravis have been reported. New diagnosis of myasthenia gravis associated with the COVID-19 vaccine is rarely reported. This case highlights the need for clinicians to be aware of the uncommon presenting symptoms in late-onset myasthenia gravis and the possibility of vaccine provoked diagnoses of immune mediated diseases.

Case Reports : Ann Nucl Med. 2022 Apr;36(4):340-350.

doi: 10.1007/s12149-021-01711-7. Epub 2022 Jan 31.

FDG uptake in axillary lymph nodes and deltoid muscle after COVID-19 mRNA vaccination: a cohort study to determine incidence and contributing factors using a multivariate analysis

Kazuo Kubota, Toshiyuki Saginoya, Kiichi Ishiwata, Tatsuhiko Nakasato, Hirotsugu Munechika

PMID: 35098436 PMCID: PMC8801267 DOI: 10.1007/s12149-021-01711-7

Abstract

Purpose: Reactive FDG uptake in the axillary lymph nodes (ALN) and deltoid muscle (DM) after COVID-19 mRNA vaccination has been recognized, although the actual situation in the Japanese population remains unknown. To determine the incidence of reactive FDG uptake and its contributing factors, we retrospectively studied a cohort of subjects who were vaccinated at our hospital.

Methods: Whole-body FDG-PET/CT examinations performed in 237 subjects out of 240 subjects with a definite history of COVID-19 vaccination (BNT162b2; BioNTech-Pfizer) were analyzed. Positivity and SUVmax of FDG uptake in the ALN and DM ipsilateral to vaccination, various subject characteristics, and the grade of the pathological FDG-PET/CT findings were evaluated using a multivariate analysis.

Results: FDG uptake in the ALN and DM ipsilateral to vaccination was seen in about 60% of the subjects even soon (0-4 days) after the first vaccination, with percentages reaching 87.5% and 75.0%, respectively, after the second vaccination. DM uptake had almost disappeared at around 2 weeks, while ALN uptake persisted for 3 weeks or longer. A multivariate analysis showed that a short duration since vaccination, a younger age, a female sex, and a low FDG-PET/CT grade (minimal pathological FDG uptake) contributed significantly to positive ALN uptake, while a short duration since vaccination and a female sex were the only significant contributors to positive DM uptake. This study is the first to identify factors contributing to positive FDG uptake in ALN and DM after COVID-19 vaccination.

Conclusion: A high incidence of FDG uptake in ALN and DM was observed after vaccination. ALN uptake seemed to be associated with a younger age, a female sex, and minimal pathological FDG uptake. After vaccination, an acute inflammatory reaction in DM followed by immune reaction in ALN linked to humoral immunity may be speculated.

Case Reports : Eur Radiol. 2022 Jan;32(1):508-516.

doi: 10.1007/s00330-021-08122-2. Epub 2021 Jun 22.

FDG uptake of axillary lymph nodes after COVID-19 vaccination in oncological PET/CT: frequency, intensity, and potential clinical impact

Stephan Skawran, Antonio G Gennari, Manuel Dittli, Valerie Treyer, Urs J Muehlematter, Alexander Maurer, Irene A Burger, Cäcilia Mader, Olivia Messerli, Hannes Grünig, Catherine Gebhard, Martin W Huellner, Alessandra Curioni-Fontecedro, Christoph Berger, Michael Messerli

PMID: 34156552 PMCID: PMC8217971 DOI: 10.1007/s00330-021-08122-2

Abstract

Purpose: Reactive FDG uptake in the axillary lymph nodes (ALN) and deltoid muscle (DM) after COVID-19 mRNA vaccination has been recognized, although the actual situation in the Japanese population remains unknown. To determine the incidence of reactive FDG uptake and its contributing factors, we retrospectively studied a cohort of subjects who were vaccinated at our hospital.

Methods: Whole-body FDG-PET/CT examinations performed in 237 subjects out of 240 subjects with a definite history of COVID-19 vaccination (BNT162b2; BioNTech-Pfizer) were analyzed. Positivity and SUVmax of FDG uptake in the ALN and DM ipsilateral to vaccination, various subject characteristics, and the grade of the pathological FDG-PET/CT findings were evaluated using a multivariate analysis.

Case Reports : Eur Heart J Case Rep. 2021 Sep 24;5(10):ytab375.

doi: 10.1093/ehjcr/ytab375. eCollection 2021 Oct.

A case report: symptomatic pericarditis post-COVID-19 vaccination

Sarah Ashaari, Hafiz Ahmed Sohaib, Kenneth Bolger

PMID: 34693198 PMCID: PMC8522432 DOI: 10.1093/ehjcr/ytab375

Abstract

Background: The Coronavirus disease 2019 (COVID-19) pandemic has led to the rapid development of COVID-19 vaccine. The Centers for Disease Control and Prevention (CDC) has recently reported increase in myopericarditis incidence post-COVID-19 vaccination. Post-vaccination myopericarditis as side effect has been reported, however, is infrequent. We described a case of pericarditis post-first dose of Pfizer-BioNTech vaccine.

Case summary: A patient presented with typical symptoms of pericarditis and related electrocardiogram and echocardiogram changes, 7 days post receiving the first dose of COVID-19 vaccine. No other causes were identified from series of investigations. Patient had good symptomatic relief with non-steroidal anti-inflammatory medication.

Discussion: The incidence of pericarditis post-vaccination is rare, with limited reporting in previous literatures. No causal relationship has yet to be established due to small number of cases. The benefits of COVID-19 vaccination currently outweigh the side effect profile and are recommended as the first-line approach to control the current pandemic.

Case Reports : Vaccine. 2021 Oct 29;39(45):6585-6590

doi: 10.1016/j.vaccine.2021.09.078. Epub 2021 Oct 5.

A case series of acute pericarditis following COVID-19 vaccination in the context of recent reports from Europe and the United States

George Lazaros, Cleo Anastassopoulou, Sophia Hatziantoniou, Theodoros Kalos, Stergios Soulaidopoulos, Emilia Lazarou, Charalambos Vlachopoulos, Dimitrios Vassilopoulos, Athanasios Tsakris, Costas Tsioufis

PMID: 34635376 PMCID: PMC8491922 DOI: 10.1016/j.vaccine.2021.09.078

Abstract

Background: COVID-19 vaccines were efficacious and safe in clinical trials. We report nine events of acute pericarditis (AP) in eight patients following COVID-19 vaccination with BNT162b2 (6/9), AZD1222 (2/9) and mRNA-1273 (1/9).

Methods: All patients were referred for AP temporally linked with COVID-19 vaccination. Chest pain was the most common clinical manifestation. Alternative etiologies were excluded upon thorough diagnostic work up. AP diagnosis was established according to ESC guidelines.

Findings: Five events occurred after the first vaccine dose and four after the second. The mean age in this cohort was 65.8 ± 10.2 years and the men/women ratio 3/5. All events resolved without sequelae; two events were complicated by cardiac tamponade requiring emergent pericardial decompression. Hospitalization was required in four cases.

Interpretation: Although causality cannot be firmly established, AP has emerged as a possible complication following COVID-19 vaccination. Further investigation is indispensable to fully characterize this new entity.

has yet to be established due to small number of cases. The benefits of COVID-19 vaccination currently outweigh the side effect profile and are recommended as the first-line approach to control the current pandemic.

Case Reports : Br J Clin Pharmacol. 2023 Jul;89(7):2113-2121.

doi: 10.1111/bcp.15678. Epub 2023 Feb 10.

A case series of bacillus Calmette-Guérin scar reactivation after administration of both mRNA and viral vector COVID-19 vaccines

Leontine van Balveren, Eugène P van Puijenbroek, Linda Davidson, Florence van Hunsel

PMID: 36717367 DOI: 10.1111/bcp.15678

Abstract

Aim: Reactivation of the scar resulting from intradermal injection of bacillus Calmette-Guérin (BCG) is a common specific reaction in Kawasaki's disease. It has also sporadically been associated with viral infections, multisystem inflammatory syndrome in children, influenza vaccination and mRNA COVID-19 vaccination. In this case series, characteristics of BCG scar reactivation after different COVID-19 vaccinations are presented and possible mechanisms are discussed.

Methods: Data were collected from the spontaneous reporting system of the Netherlands Pharmacovigilance Centre Lareb. Descriptives were made for the case reports in which a BCG scar reactivation was detected.

Results: Since the start of the COVID-19 vaccination campaign in January 2021, the Netherlands Pharmacovigilance Centre Lareb has received 22 case reports of BCG reactivation after vaccination with a COVID-19 vaccine. In 20 case reports, it concerned mRNA COVID-19 vaccines Moderna (14) and Pfizer (6). In two case reports, the viral vector COVID-19 vaccine AstraZeneca was administered. Erythema and pain were the most frequently reported symptoms and the size

of the inflammation was between 1.5 and 5 cm. BCG scar reactivation occurred with a median time to onset of 2 days after the second or booster COVID-19 vaccination, whereas the median time to onset was 7 days after the first COVID-19 vaccination. None of the BCG scar reactivations were treated.

Conclusions: The exact mechanism of the occurrence of BCG scar reactivation remains unknown, but involvement of heat shock protein 65 is suggested. BCG scar reactivation is a nonserious, self-limiting reaction that can occur after vaccination with both mRNA and viral vector COVID-19 vaccines.

Case Reports : Front Endocrinol (Lausanne). 2022 Mar 18:13:840580. doi: 10.3389/fendo.2022.840580. eCollection 2022.

A Case Series of Ketoacidosis After Coronavirus Disease 2019 Vaccination in Patients With Type 1 Diabetes

Fumiyoshi Yakou, Masuo Saburi, Ai Hirose, Hiroaki Akaoka, Yusuke Hirota, Takaaki Kobayashi, Naoko Awane, Nobuteru Asahi, Toshihiro Amagawa, Sachihiko Ozawa, Atsushi Ohno, Takaya Matsushita

PMID: 35370952 PMCID: PMC8971718 DOI: 10.3389/fendo.2022.840580

Abstract

Introduction: We report a case series of severe ketoacidosis after COVID-19 vaccination in a type 1 diabetes patients treated with insulin and an SGLT-2 inhibitor.

Case report: We present two cases of type 1 diabetes mellitus. One patient was treated with insulin therapy and an SGLT-2 inhibitor, and the other patient was treated with insulin therapy alone. Both patients became ill after coronavirus disease-2019 vaccination, making it difficult to continue their diet or insulin injections. On admission, they developed severe diabetic ketoacidosis. This is the first report of ketoacidosis after coronavirus disease-2019 vaccination.

Conclusion: The vaccine should be carefully administered to type 1 diabetes patients receiving intensive insulin therapy and a sodium-glucose transporter due to the high risk ketoacidosis. It is important to instruct patients to drink sufficient fluids and to continue insulin injections when they become sick.

Case Reports : Cureus. 2022 Oct 4;14(10):e29892.

doi: 10.7759/cureus.29892. eCollection 2022 Oct.

A Case Series of Myocarditis Related to the COVID-19 Vaccine

Hayfa O Ahmed, Mawada M Ahmed, Omer Elrasheid

PMID: 36348838 PMCID: PMC9631103 DOI: 10.7759/cureus.29892

Abstract

Perimyocarditis related to the coronavirus disease 2019 (COVID-19) vaccine is one of the rare adverse events that emerged in April 2021 and then the number of cases commensurably increased as the number of vaccinated people rose. This is a case series of myocarditis/pericarditis related to the messenger RNA (mRNA) COVID-19 vaccine in which we identified four cases with different presentations and outcomes. A short-term follow-up period of five months revealed a full recovery of three cases within one to 12 weeks and persistent left ventricular systolic dysfunction in the fourth case which will require further follow-up to assess long-term outcomes.

Case Reports : Br J Clin Pharmacol. 2022 Feb;88(4):1935-1941.

doi: 10.1111/bcp.15116. Epub 2021 Nov 9.

A case series of vaccine-induced thrombotic thrombocytopenia in a London teaching hospital

Isabella Watts, David Smith, Sarah Mounter, Emma H Baker,

Andrew W Hitchings, Dipender Gill

PMID: 34694650 PMCID: PMC8652623 DOI: 10.1111/bcp.15116

Abstract

The ChAdOx1 nCoV-19 vaccine has been associated with increased risk of thrombosis. Understanding of the management of these rare events is evolving, and currently recommended treatments include human normal immunoglobulin and nonheparin anticoagulation such as direct oral anticoagulants. Our report describes three consecutive patients presenting to a London teaching hospital with vaccine-induced thrombotic thrombocytopenia (VITT), also referred to as vaccine-induced prothrombotic immune thrombocytopenia. The patients ranged in age from 40 to 54 years and two had no known previous medical comorbidities. Two patients had cerebral venous sinus thrombosis and one had a deep vein thrombosis. Two were treated with anticoagulation, one with oral rivaroxaban and the other with an intravenous argotraban infusion that was later converted to oral apixaban. One patient received three doses of human normal immunoglobulin and 5 days of therapeutic plasma exchange. This case series may be used to improve understanding of the clinical course and management of VITT.

Case Reports : Cureus. 2022 Sep 27;14(9):e29660.

doi: 10.7759/cureus.29660. eCollection 2022 Sep.

A Case Series on the COVID-19 Vaccines and Possible Immune-Related Adverse Events: A New Challenge for the Rheumatologists

Vicky Nahra, Mahesha Makandura, Donald D Anthony, Maya Mattar

PMID: 36321010 PMCID: PMC9612893 DOI: 10.7759/cureus.29660

Abstract

The COVID-19 pandemic has been a prime health issue since December 2019. Consequently, there has been an urgent need to prevent severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) infection and its associated morbidity and mortality. The currently available vaccines are designed to prevent infection. Their efficacy and safety have been demonstrated in clinical trials. Yet, given the short duration of the trials and the urgency to start vaccination, adverse events have been reported worldwide in real-life data format. Immune-mediated disease flares or new-onset inflammatory diseases following vaccine administration have recently been reported worldwide. Here, we present three cases of inflammatory arthritis (IA) caused by the BNT162b2 COVID vaccination, including two new-onset cases and one case of a flare of existing disease. The first case is new-onset IA, the second case is new-onset rheumatoid arthritis, and the third case is a flare of existing rheumatoid arthritis. Given the timeline of when our patients developed either a flare of their existing rheumatoid arthritis or new-onset IA or polymyalgia rheumatica (PMR) (a few days after receiving the COVID-19 vaccine), in addition to the currently available evidence of documented similar cases post administration of mRNA vaccines, as

well as the link between their mechanism of action and the pathogenesis of those diseases, we can speculate a causal relationship between the vaccine and the triggering of these disease entities. In the future, it is important to consider that autoimmune diseases might be triggered or flared by the administration of vaccines, which appears to be associated with the COVID vaccine as well. Further evaluation of its incidence will provide additional clarity, though the rarity of this occurrence in the setting of more than half of the US population becoming vaccinated indicates that the benefit of the vaccine in terms of protection from COVID morbidity and mortality far outweighs this risk.

Case Reports : Acta Neurol Taiwan. 2023 Jun 30:32(2):65-68.

A case with prolonged headache after COVID-19 vaccination and later developed Bell's palsy

Yi-Yang Hsiao, Ling-Jun Liu, Yo-Lin Lin

PMID: 37198509

Abstract

Purpose: During COVID-19 pandemic, the authorization of emergent usage of new vaccine has raised suspicions and doubts about potential adverse events related to vaccination. Among the reported adverse events related to ChAdOx1/nCoV-19 vaccine, facial paralysis did not have an incident rate higher than natural occurrence like mRNA vaccines. However, temporal association between vaccination and facial palsy have been documented in several studies. Here, we report a case of an otherwise healthy 23-year-old Taiwanese female who experienced prolonged headache since the second day postvaccination and developed facial palsy on the tenth day.

Case report: A 23-year-old Taiwanese female who was previously healthy experienced intermittent right side throbbing headache, general malaise, myalgia and fever. Headache, transient ear pain and right scalp numbness developed in the next few days but quickly resolved. On day ten after vaccination, signs of facial palsy on the right side of her face was noticed. The results of brain Magnetic Resonance Imaging (MRI) with contrast displayed no abnormality. Facial stimulation and blink reflex tests were compatible with right facial neuropathy.

Conclusion: Reactivation of latent herpes virus has been suggested as one of the possible mechanisms underlying the phenomenon, but the causal pathophysiology related to the symptom needs further

validation. Moreover, in the event of facial palsy post-vaccination, alternative diagnoses such as Guillain-Barre syndrome (GBS), Ramsey-Hunt syndrome, Lyme disease, trauma, central nervous system infection (CNS) infection, or stroke should also be considered.

the COVID-19 vaccine), in addition to the currently available evidence of documented similar cases post administration of mRNA vaccines, as

Case Reports : Blood Coagul Fibrinolysis. 2022 Mar 1;33(2):134-137. doi: 10.1097/MBC.0000000000001112.

A challenging case of heparin-induced skin necrosis without thrombocytopenia

Anusha Chidharla, Eliot A Rapoport, Noor Naffakh, Jonathan C Roberts

PMID: 35140192 DOI: 10.1097/MBC.0000000000001112

Abstract

Heparin-induced skin necrosis (HISN) is a rare complication of heparin anticoagulation. The condition occurs in various situations, including in heparin-naive and exposed individuals, in areas local or distant from the heparin injection site, and with or without frank thrombocytopenia. We present a case in which a patient treated for a pulmonary embolism with therapeutic unfractionated heparin (UFH) develops this adverse event. Symptoms were reversed with cessation of UFH and transition to bivalirudin without surgical debridement. The patient initially had anti-PF4 antibodies present but subsequent testing showed borderline antibodies and a negative serotonin release assay. After starting bivalirudin, the patient was later switched to fondaparinux without further consequences. This case illustrates the pathogenesis of HISN and provides an example of inconsistently abnormal laboratory values. Additionally, it provides two novel exposures the mRNA-1273 vaccine and the immune checkpoint inhibitor pembrolizumab that, to our knowledge, have not been previously reported.

Case Reports : Pediatr Nephrol. 2023 Jan;38(1):299-302.

doi: 10.1007/s00467-022-05681-4. Epub 2022 Jul 19.

A child with crescentic glomerulonephritis following SARS-CoV-2 mRNA (Pfizer-BioNTech) vaccination

Sujeong Kim, Jiwon Jung, Haeyon Cho, Jina Lee, Heounjeong Go, Joo Hoon Lee

PMID: 35854121 PMCID: PMC9296111 DOI: 10.1007/s00467-022-05681-4

Abstract

Background: There are few reports on kidney complications after severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) messenger RNA (mRNA) vaccination, especially in the pediatric population. We report a pediatric case diagnosed with crescentic glomerulonephritis (CrGN) after the second dose of the SARS-CoV-2 mRNA vaccine.

Case-diagnosis/treatment: A 16-year-old girl was admitted due to dyspnea and headache approximately 6 weeks after receiving the second SARS-CoV-2 mRNA vaccine (Pfizer-BioNTech). She had previously experienced fever, nausea, vomiting, and dyspnea after the first vaccination, which persisted for a week. On admission, her blood pressure was 155/89 mmHg with a 7 kg weight gain in a month. She had microhematuria and proteinuria. Laboratory findings were as follows: blood urea nitrogen/creatinine, 66/9.57 mg/dL; and brain natriuretic peptide, 1,167 pg/mL. Anti-neutrophil cytoplasmic antibody (ANCA), anti-glomerular basement membrane (GBM) antibody, and antinuclear antibody findings were negative. Kidney doppler sonography revealed

swelling and increased echogenicity of both kidneys with increased resistive index. Cardiac magnetic resonance imaging results showed early minimal fibrosis of myocarditis. We then started hemodialysis. Kidney biopsy showed diffuse extra capillary proliferative glomerulonephritis with diffuse crescent formation. We treated the patient with methylprednisolone pulse therapy with subsequent oral steroids and mycophenolate mofetil. Although dialysis was terminated, the patient remained in the chronic kidney disease stage.

Conclusions: This is the first case of ANCA-negative CrGN after SARS-CoV-2 mRNA vaccination in the pediatric population. As children are increasingly vaccinated with SARS-CoV-2 mRNA vaccines, monitoring for kidney complications is warranted

Case Reports : J Community Hosp Intern Med Perspect. 2022 Sep 9;12(5):110-113.

doi: 10.55729/2000-9666.1107. eCollection 2022.

A Chronic Obstructive Pulmonary Disease Exacerbation Following the Administration of a COVID 19-Booster Vaccine: A Case Report

William Gatenby, Gifty Dominah, Amrit Paudel, Nahar Saleh

PMID: 36262495 PMCID: PMC9529658 DOI: 10.55729/2000-9666.1107

Abstract

We present a case of a patient who presented to the emergency department with symptoms suggestive of a chronic obstructive pulmonary disease (COPD) exacerbation one day after receiving the BNT162b2 COVID-19 booster vaccine. Laboratory studies indicated she was in a state of inflammation, but not infection. Other potential triggers, including cardiac and viral etiologies, were ruled out. To our knowledge, this is the first documented case of a COPD exacerbation following the administration of the BNT162b2 COVID-19 vaccine.

Case Reports : Am J Case Rep. 2022 Aug 10:23:e936896.

doi: 10.12659/AJCR.936896.

A Clinical Case of COVID-19 Vaccine-Associated Guillain-Barré Syndrome

Alexis Hilts, Ariyon Schreiber, Aditi Singh

PMID: 35945825 PMCID: PMC9377719 DOI: 10.12659/AJCR.936896

Abstract

BACKGROUND Guillain-Barre syndrome (GBS) is an autoimmune condition that presents as weakness, numbness, paresthesia, and areflexia. GBS may occur following infection or vaccination. The pathogenesis of GBS is characterized by inflammatory infiltrates and segmental demyelination. The mechanism of GBS following COVID-19 vaccination is hypothesized to arise from an autoimmune-mediated mechanism leading to an increase in inflammatory cytokines. While there were no reported cases of GBS during the mRNA COVID-19 vaccination clinical trials, there have been a few case reports of GBS following COVID-19 vaccination. CASE REPORT We report a case of symmetric weakness and paresthesia that began 3 days after the patient received his first dose of the Moderna COVID-19 vaccine. Cerebrospinal fluid (CSF) studies demonstrated albuminocytologic dissociation. The combination of the patient's CSF findings and clinical symptoms was concerning for Guillain-Barre syndrome. Given the clinical findings 3 days following COVID-19 vaccination, there was a high concern for COVID-19 vaccine-induced GBS. The patient was treated with IVIG followed by plasmapheresis but failed to show significant improvement from either treatment. CONCLUSIONS Our case report demonstrates occurrence of GBS soon after the patient received the COVID-19 Moderna vaccine. Although rare, there is some evidence to support an association between COVID-19 vaccination and GBS, but this is

generally limited to case reports and case series. Clinicians, however, should remain vigilant to mitigate potential risks, such as autonomic dysfunction, respiratory failure, permanent disability, and death in patients who develop GBS after vaccination.

Case Reports : Am J Case Rep. 2022 Aug 10:23:e936896.

doi: 10.12659/AJCR.936896.

A Clinical Case of COVID-19 Vaccine-Associated Guillain-Barré Syndrome

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Abstract

BACKGROUND Guillain-Barre syndrome (GBS) is an autoimmune condition that presents as weakness, numbness, paresthesia, and areflexia. GBS may occur following infection or vaccination. The pathogenesis of GBS is characterized by inflammatory infiltrates and segmental demyelination. The mechanism of GBS following COVID-19 vaccination is hypothesized to arise from an autoimmune-mediated mechanism leading to an increase in inflammatory cytokines. While there were no reported cases of GBS during the mRNA COVID-19 vaccination clinical trials, there have been a few case reports of GBS following COVID-19 vaccination. CASE REPORT We report a case of symmetric weakness and paresthesia that began 3 days after the patient received his first dose of the Moderna COVID-19 vaccine. Cerebrospinal fluid (CSF) studies demonstrated albuminocytologic dissociation. The combination of the patient's CSF findings and clinical symptoms was concerning for Guillain-Barre syndrome. Given the clinical findings 3 days following COVID-19 vaccination, there was a high concern for COVID-19 vaccine-induced GBS. The patient was treated with IVIG followed by plasmapheresis but failed to show significant improvement from either treatment. CONCLUSIONS Our case report demonstrates occurrence of GBS soon after the patient received the COVID-19 Moderna vaccine. Although rare, there is some evidence to support

an association between COVID-19 vaccination and GBS, but this is generally limited to case reports and case series. Clinicians, however, should remain vigilant to mitigate potential risks, such as autonomic dysfunction, respiratory failure, permanent disability, and death in patients who develop GBS after vaccination.

Case Reports : Ann Med Surg (Lond). 2022 Feb:74:103347.

doi: 10.1016/j.amsu.2022.103347. Epub 2022 Feb 5.

A COVID-19 vaccination precipitating symptomatic calcific tendinitis: A case report

Prapakorn Klabklay , Pattira Boonsri, Pathawin Kanyakool,

Chaiwat Chuaychoosakoon

PMID: 35154699 PMCID: PMC8817452 DOI: 10.1016/j.amsu.2022.103347

Abstract

Introduction: Shoulder pathology may be symptomatic or asymptomatic depending on the patient. We report the first case of a COVID-19 vaccination administration precipitating symptomatic calcific tendinitis from pre-existing, asymptomatic calcific tendinitis.

Case presentation: A 50-year-old Thai male began experiencing left shoulder pain about 3 hours following a COVID-19 vaccination. He waited at home for the pain to improve, and when it did not improve in about 3 days he decided to see a doctor at the orthopedics clinic. He was sent for ultrasonography of his shoulder, which revealed calcific tendinitis of the subscapularis tendon.

Discussion: A SIRVA is normally considered if post-vaccination shoulder pain has not improved within a few days following a vaccination in a patient without shoulder pain prior to the vaccination. In our patient, a COVID-19 vaccination precipitated asymptomatic calcific tendinitis to symptomatic calcific tendinitis.

Conclusion: Previously asymptomatic shoulder pathologies can be precipitated to symptomatic by a COVID-19 vaccination.

occurrence of GBS soon after the patient received the COVID-19 Moderna vaccine. Although rare, there is some evidence to support an association between COVID-19 vaccination and GBS, but this is

Case Reports : Cureus. 2021 Jul 14;13(7):e16383.

doi: 10.7759/cureus.16383. eCollection 2021 Jul.

A COVID-Positive 52-Year-Old Man Presented With Venous Thromboembolism and Disseminated Intravascular Coagulation Following Johnson & Johnson Vaccination: A Case-Study

Omar Shazley, Moudar Alshazley

PMID: 34408937 PMCID: PMC8362796 DOI: 10.7759/cureus.16383

Abstract

The coronavirus disease 2019 (COVID-19) is caused by the severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2). Infection by the SARS-CoV-2 increases the risk for systematic multi-organ complications and venous, arterial thromboembolism. The need for an effective vaccine to combat the pandemic prompted the Centers for Disease Control and Prevention (CDC) and Food and Drug Administration (FDA) to approve a nationwide distribution of the Ad26.COV2.S vaccine manufactured by Johnson & Johnson (J&J). The use of the vaccine was halted after reported cases of cerebral venous sinus thrombosis (CVST) and thrombocytopenia among recipients. Researchers have postulated these rare occurrences as potentially immune-triggered responses associated with complement-mediated thrombotic microangiopathy (TMA). Thrombotic complications and thrombocytopenia increase the risk for blood clot growth due to the inflammation of immune complexes by pro-thrombotic activation of anti-platelet antibodies. A 52-year-old man presented to the intensive care unit (ICU) with severe dyspnea.

He required bilevel positive airway pressure (BiPAP) for supplemental oxygen therapy. Endotracheal intubation was performed due to his worsened respiratory deterioration. Lab results suggested respiratory failure due to decreased partial pressure of oxygen (pO2) and increased partial pressure of carbon dioxide (pCO2). Findings of elevated D-dimer levels with decreased fibrinogen and thrombocytopenia with prolonged prothrombin clotting time were consistent for disseminated intravascular coagulation (DIC). Chest radiography displayed moderate to heavy bilateral airspace consolidations, consistent with multifocal pneumonia suspicious for COVID-19. A computed tomography angiogram (CTA) revealed a mildly enlarged right ventricle and interventricular septum consistent for right heart strain due to a saddle pulmonary embolism (PE) that extended into the main pulmonary lobar segmental arteries bilaterally. The patient was transferred to a higher-level (tertiary) care for radiology intervention to remove the pulmonary embolism found on his lungs. This patient presented with severe dyspnea secondary to massive PE and deep venous thrombosis (DVT) due to SARS-CoV2 infection following the administration of the J&J vaccine. Bilateral thrombus opacities and pulmonary emboli are consistent among COVID-19 patients by intravascular coagulation with increased prothrombin time and D-dimer concentration with a low platelet count. Adverse emboli growths with increased D-dimer and thrombocytopenia strikes a similarity in recipients of the AstraZeneca vaccine due to vaccine-induced immune thrombotic thrombocytopenia (VITT). Administrative use of the J&J vaccine resumed in May 2021. The FDA's reassurance stemmed from their conclusive findings that the vaccine's benefits far outweigh these rare developments, which account for less than 0.01% of the total recipient population. Nevertheless, a further detailed analysis must be conducted on the adverse thrombotic manifestations following adenoviral-based COVID-19 vaccines (J&J, AstraZeneca) compared to mRNA-based vaccines (Moderna, Pfizer) to assess causality with higher specificity.

Case Reports : CEN Case Rep. 2022 Nov;11(4):477-481.

doi: 10.1007/s13730-022-00702-5. Epub 2022 Apr 18.

A de novo case of minimal change disease following the first dose of the Moderna mRNA-1273 SARS-CoV-2 vaccine without relapse after the second dose

Reika Ikegami Mochizuki, Naohiro Takahashi, Ken Ikenouchi, Wakana Shoda, Tamaki Kuyama, Daiei Takahashi

PMID: 35435622 PMCID: PMC9014404 DOI: 10.1007/s13730-022-00702-5

Abstract

In recent times, new onset or relapse of nephrotic syndrome following the first dose of SARS-CoV-2 vaccines has been reported. Although the vaccination could trigger nephrotic syndrome, the question of whether the same vaccine should be administered as the second dose remains unanswered. A 25-year-old woman had taken the Moderna mRNA-1273 SARS-CoV-2 vaccine (mRNA-1273) and 26 days later, she noticed facial and peripheral edema. One week later she was referred and admitted to our hospital, wherein laboratory tests revealed that her serum creatinine level, serum albumin level, and urine protein-creatinine ratio were respectively 0.79 mg/dL, 2.5 g/dL, and 7.0 g/gCr. After a thorough inpatient examination including renal biopsy, she was diagnosed with minimal change disease (MCD) and treatment with steroids was initiated. She achieved complete remission the next day and did not experience a relapse upon receiving the second mRNA-1273 dose 56 days after the first, under treatment with 35 mg/day of oral prednisolone. This case report yields insight into determining whether patients who develop de novo MCD after the first mRNA-1273 dose should receive the second dose.

Home : Journal of Medical Humanities .

A Dialogue about Vaccine Side Effects: Understanding Difficult Pandemic Experiences

ORIGINAL PAPER | Open access | Published: 01 July 2024

Volume 46, pages 91–114, (2025) Cite this article

Abstract

This paper investigates the relationship between the experiences of mass vaccinations against two pandemic viruses: the swine flu in 2009–2010 and COVID-19 in the early 2020s. We show how distressing memories from the swine flu vaccination, which led to the rare but severe adverse effect of narcolepsy in approximately 500 children in Sweden, were triggered by the COVID-19 pandemic. The narcolepsy illness story has rarely been told in academic contexts; therefore, we will provide space for this story. It is presented through a dialogue with the aim of shedding light on the interrelationship between pandemics—and between mass vaccinations—to investigate what could be termed cultural wounds that influence societies because they are characterized by the difficulty of talking about them. The paper explores the multiple shocks of illness in life and what can be learned from them by sharing them.

Home : Indian J Crit Care Med. 2022 Summer;26(4):518-520.

doi: 10.5005/jp-journals-10071-24185.

A Fatal Case of Acute Disseminated Encephalomyelitis: A Diagnosis to Ponder in Pandemic

Amber Kumar, Pranshuta Sabharwal, Prasoon Gupta, Vinod K Singh, Brijendra K Rao

PMID: 35656055 PMCID: PMC9067481 DOI: 10.5005/jp-journals-10071-24185

Abstract

A 40-year-old woman known hypertensive presented with progressive ascending paralysis. MRI T2W and FLAIR screening of the brain demonstrated swelling with altered signal in the visual cervical cord, medulla, and another juxtacortical lesion in the right temporal lobe with possibility of a demyelinating etiology. CSF testing did not identify a direct cerebral infection. High-dose steroids followed by a course of IVIG was administered but with no significant response. In these pandemic times, the patients who present with altered mentation and polyfocal neurological deficits and background history of recent COVID-19 infection or recipient of SARS-CoV-2 vaccine the diagnosis of acute disseminated encephalomyelitis (ADEM) should be considered likely.

How to cite this article: Kumar A, Sabharwal P, Gupta P, Singh VK, Rao BK. A Fatal Case of Acute Disseminated Encephalomyelitis: A Diagnosis to Ponder in Pandemic. Indian J Crit Care Med 2022;26(4):518-520.

Home : Skinmed. 2022 Oct 31;20(5):387-389. eCollection 2022.

A Histologic Timeline of a Delayed Hypersensitivity Reaction after the COVID-19 Pfizer Booster

Jennifer A Strong, Karl M Hoegler, Anna Reznikova, Marcia S Driscoll

PMID: 36314709

Abstract

A 54-year-old man presented with worsening bilateral rashes on legs and arms 7 days after receiving his BNT162b2 mRNA COVID-19 (Pfizer) vaccine booster. He developed burning on his palms about 5 days after receiving the booster. On day 6, he observed significant edema on his fingers and palms in addition to thin erythematous papules on his forearms. On day 7, he developed edema on his bilateral dorsal feet, and thin erythematous plaques on his shins. He stated that the rashes were pruritic. He had no rashes following the first two doses of the Pfizer vaccine. He denied having any history of skin disease, autoimmune disease, or allergies. Physical examination revealed multiple thin erythematous papules coalescing into thin plaques on his flexor forearms, and thin erythematous plaques on his dorsal feet (Figure 1). Three 4-mm punch biopsies were performed on his left flexor forearm. The biopsies were carried out at papules present for different lengths of time. Papules at biopsy sites "A," "B," and "C" were present for approximately 24-36 hours, 12-18 hours, and 3-6 hours, respectively (Figure 1).

Case Reports : Vaccines (Basel). 2022 Jul 26;10(8):1184.

doi: 10.3390/vaccines10081184.

A Large Cluster of New Onset Autoimmune Myositis in the Yorkshire Region Following SARS-CoV-2 Vaccination

Gabriele De Marco, Sami Giryes, Katie Williams, Nicola Alcorn, Maria Slade, John Fitton, Sharmin Nizam, Gayle Smithson, Khizer Iqbal, Gui Tran, Katrina Pekarska, Mansoor Ul Haq Keen, Mohammad Solaiman , Edward Middleton, Samuel Wood, Rihards Buss, Kirsty Devine, Helena Marzo-Ortega, Mike Green, Dennis Gerald McGonagle

PMID: 35893834 PMCID: PMC9331977 DOI: 10.3390/vaccines10081184

Abstract

Background: The novel SARS-CoV-2 vaccines partially exploit intrinsic DNA or RNA adjuvanticity, with dysregulation in the metabolism of both these nucleic acids independently linked to triggering experimental autoimmune diseases, including lupus and myositis.

Methods: Herein, we present 15 new onset autoimmune myositis temporally associated with SARS-CoV-2 RNA or DNA-based vaccines that occurred between February 2021 and April 2022. Musculoskeletal, pulmonary, cutaneous and cardiac manifestations, laboratory and imaging data were collected.

Results: In total, 15 cases of new onset myositis (11 polymyositis/necrotizing/overlap myositis; 4 dermatomyositis) were identified in the Yorkshire region of approximately 5.6 million people, between February 2021 and April 2022 (10 females/5 men; mean age was 66.1 years; range 37-83). New onset disease occurred after first vaccination (5 cases),

second vaccination (7 cases) or after the third dose (3 cases), which was often a different vaccine. Of the cases, 6 had systemic complications including skin (3 cases), lung (3 cases), heart (2 cases) and 10/15 had myositis associated autoantibodies. All but 1 case had good therapy responses. Adverse event following immunization (AEFI) could not be explained based on the underlying disease/co-morbidities.

Conclusion: Compared with our usual regional Rheumatology clinical experience, a surprisingly large number of new onset myositis cases presented during the period of observation. Given that antigen release inevitably follows muscle injury and given the role of nucleic acid adjuvanticity in autoimmunity and muscle disease, further longitudinal studies are required to explore potential links between novel coronavirus vaccines and myositis in comparison with more traditional vaccine methods.

Case Reports : Cureus. 2021 Sep 11;13(9):e17890.

doi: 10.7759/cureus.17890. eCollection 2021 Sep.

A Late Presentation of COVID-19 Vaccine-Induced Myocarditis

Nitesh Gautam, Prachi Saluja, Marat Fudim, Kedar Jambhekar, Tarun Pandey, Subhi Al'Aref

PMID: 34660088 PMCID: PMC8504680 DOI: 10.7759/cureus.17890

Abstract

With the introduction of the coronavirus disease 2019 (COVID-19) mRNA vaccines, the incidence of severe infection has significantly decreased. While the vaccines have been shown to be effective and safe, there have been few case reports of acute myocarditis within 3-5 days following the second dose of the vaccine. We report a case of an elderly man who presented with acute-onset chest pain after three months of receiving the second dose of the mRNA vaccine. He was found to have acute myocarditis on cardiac magnetic resonance imaging (CMRI), which was attributed to exposure to the COVID-19 vaccine in the absence of any other risk factors. Our patient demonstrated quick resolution of symptoms and was discharged within 72 hours. We review the literature and summarize published case reports on COVID-19 vaccine-associated myocarditis. The present case report provides new evidence regarding the possible subacute presentation of myocarditis post-COVID-19 vaccine, and further highlights the favorable outcome in this newly described clinical entity.

Case Reports : Neurol Res Pract. 2021 Nov 8;3(1):56.

doi: 10.1186/s42466-021-00156-7.

A neurologist's rhombencephalitis after comirnaty vaccination. A change of perspective

Alexander Walter, Markus Kraemer

PMID: 34743758 PMCID: PMC8572650 DOI: 10.1186/s42466-021-00156-7

Abstract

Rhombencephalitis is an orphan disease of multiple causes that may manifest with facial palsy, limb ataxia and reduced consciousness. Up to now it is described after COVID-19 infection and in this (personal) case was found up to 8 weeks after Comirnaty vaccination. So far, we do not fully understand the pathophysiological characteristics of encephalitis associated with SARS-CoV-2. In rare cases, vaccination may cause an immunological reaction and delayed inflammation, the consequences of which we have not yet deciphered. Rhombencephalitis should be considered as a rare potential mRNA-associated vaccination side effect.

Case Reports : Dermatol Online J. 2022 Aug 15;28(4).
doi: 10.5070/D328458525.

A new eruption of bullous pemphigoid following mRNA COVID-19 vaccination

Bryan Daines, Lauren M Madigan, Patricia A Vitale, Mazdak Khalighi, Matthew Innes

PMID: 36259862 DOI: 10.5070/D328458525

Abstract

The rapid development and implementation of COVID-19 vaccines throughout the global population has given rise to unique, rare, adverse skin reactions. This case report describes an elderly man with new-onset bullous pemphigoid following the second dose of the Pfizer-BioNTech (mRNA) COVID-19 vaccine.

Case Reports : Cureus. 2023 Mar 16;15(3):e36257.

doi: 10.7759/cureus.36257. eCollection 2023 Mar.

A New Onset of Ulcerative Colitis Post-COVID-19: A Case Report

Chenfan Xia, Jayanthi Dissanayake, David Badov

PMID: 37069864 PMCID: PMC10105639 DOI: 10.7759/cureus.36257

Abstract

Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) can cause not only respiratory symptoms but also gastrointestinal symptoms. In addition, there is increased concern about the autoimmune complications of coronavirus disease 2019 (COVID-19). This report describes a 21-year-old non-smoking Caucasian male with a history of acute pancreatitis but no other medical issues or family history who developed a new onset of ulcerative colitis after the second episode of COVID-19. He had three doses of the BNT162b2 mRNA COVID-19 vaccine. Two months after the first episode of COVID-19, he had the third dose of the vaccine. Nine months after the third dose, he had the second episode of COVID-19, during which he was mildly unwell for three days, recovered, and did not require any anti-viral medication or antibiotics. One week post the second episode of COVID-19, he developed diarrhoea and abdominal pain. It then progressed to bloody diarrhea. We diagnosed ulcerative colitis based on his clinical symptoms, biopsy changes, and the exclusion of other causes. This case raises awareness of developing ulcerative colitis concurrently with or following COVID-19. It is essential to thoroughly investigate COVID-19 patients who have diarrhea or bloody diarrhea and not consider it a common gastroenteritis or a simple gastrointestinal manifestation of COVID-19. Although we cannot confirm the association with a case study, further research is needed to confirm the causal or incidental relationship and observe any increased incidence of ulcerative colitis in the future as secondary to COVID-19.

Case Reports : Med Int (Lond). 2022 Jun 7;2(3):20.

doi: 10.3892/mi.2022.45. eCollection 2022 May-Jun.

A nitrous oxide abuser presenting with cerebral venous thrombosis: A case report

Shum-Shin Lin, I-Wei Fan, Chun-Yu Chen, Yu-Jang Su

PMID: 36698503 PMCID: PMC9829206 DOI: 10.3892/mi.2022.45

Abstract

The present study describes the case of a 25-year-old male patient who presented to the emergency department with severe headache and vertigo lasting for 3 days. The patient did not have a recent history of trauma. He was vaccinated with a second dose of the AstraZeneca COVID-19 vaccine ~1 month prior, and he suffered from a vitamin B12 deficiency due to nitrous oxide abuse. Upon an examination of his vital signs, he was found to have a body temperature of 36.4˚C, a pulse rate of 64 beats per minute, a respiratory rate of 18 breaths per minute and a blood pressure of 119/68 mmHg. A neurological examination only revealed left homonymous upper quadrantanopia. The serum platelet count of the patient was 361x1,000/µl and he had elevated D-dimer levels (0.98 µg/ml). A provisional clinical diagnosis of acute cerebrovascular accident was made. A computed tomography scan of the head revealed an abnormal hyperattenuation in the straight sinus and bilateral transverse sinuses. A diagnosis of cerebral sinovenous thrombosis (CSVT) was made following a consultation with a neurologist. The patient was treated with enoxaparin at 6,000 IU, levetiracetam at 1,000 mg and mannitol at 100 ml via an intravenous drip. After admission, magnetic resonance venography revealed the absence of flow in the straight sinus and bilateral transverse sinuses. A thrombophilic investigation revealed a plasma homocysteine level of 59.03 µmol/l (upper normal limit, 15.39 µmol/l), a vitamin B12 level of <148 (lower normal limit, 187 pg/ml). CSVT secondary to homocystinemia was diagnosed. The treatment included anticoagulation and vitamin B12 supplementation.

The patient was administered vitamin B12 at 500 mcg twice per day, pyridoxine at 50 mg per day, folic acid at 5 mg two times per day and edoxaban at 60 mg per day. After 7 days of treatment, his headache and quadrantanopia were improved, and the patient was discharged.

Case Reports : Neurol Int. 2021 Aug 13;13(3):404-409.

doi: 10.3390/neurolint13030040

A Novel Case of Bifacial Diplegia Variant of Guillain-Barré Syndrome Following Janssen COVID-19 Vaccination

Apoorv Prasad, Gage Hurlburt, Sanjiti Podury, Medha Tandon, Seth Kingree, Shitiz Sriwastava

PMID: 34449715 PMCID: PMC8395825 DOI: 10.3390/neurolint13030040

Abstract

Guillain-Barré syndrome (GBS) is an immune-mediated demyelinating disorder which attacks the peripheral nervous system. Antecedent infection or vaccine administration are known to precipitate the onset of this disorder. Its typical presentation leads to a symmetric, rapidly progressive, ascending paresis with associated sensory deficits and impaired reflexes. We present a rare case of a bi-facial diplegia variant of GBS, within four weeks of the COVID-19 vaccination. Due to its chronology, clinical manifestations, and cerebrospinal fluid (CSF) findings, we propose this case to be a rare complication of the COVID-19 vaccinationa plasma homocysteine level of 59.03 μmol/l (upper normal limit, 15.39 μmol/l), a vitamin B12 level of <148 (lower normal limit, 187 pg/ml). CSVT secondary to homocystinemia was diagnosed. The treatment included anticoagulation and vitamin B12 supplementation.

Review : Intern Med. 2022 Oct 15;61(20):3101-3106.

doi: 10.2169/internalmedicine.0104-22. Epub 2022 Aug 10.

A Novel Development of Sarcoidosis Following COVID-19 Vaccination and a Literature Review

Tadahisa Numakura, Koji Murakami, Tsutomu Tamada, Chiaki Yamaguchi, Chihiro Inoue, Shinya Ohkouchi, Naoki Tode, Hirohito Sano, Hiroyuki Aizawa, Kei Sato, Ayumi Mitsune, Hajime Kurosawa, Toru Nakazawa, Hisatoshi Sugiura

PMID:35945009 PMCID:PMC9646347 DOI:10.2169/internalmedicine.0104-22

Abstract

BNT162b2 (Pfizer/BioNTech) is a coronavirus disease 2019 (COVID-19) vaccine containing nucleoside-modified messenger RNA encoding the severe acute respiratory syndrome coronavirus 2 spike glycoprotein. Recently, ocular complications of mRNA vaccines have been reported increasingly frequently. However, immunological adverse events due to mRNA vaccines in real-world settings are not fully known. We herein report the novel development of sarcoidosis manifested as uveitis, bilateral hilar lymphadenopathy, angiotensin-converting enzyme elevation, and epithelioid and giant cell granuloma formation in the lung soon after the first BNT162b2 injection and review the current literature, including three reported cases of sarcoid-like reaction following COVID-19 vaccination.

Review : Cardiol Young. 2022 Oct;32(10):1688-1691.

doi:10.1017/S1047951122000312. Epub 2022 Jan 27.

A paediatric case of myopericarditis post-COVID-19 mRNA vaccine

Mehmet Türe , Alper Akın, Muhammed Demir, Cihan Akay

PMID: 35082004 PMCID: PMC8861555 DOI: 10.1017/S1047951122000312

Abstract

Myopericarditis is a condition, which primarily involves the pericardium, with minimal myocardial involvement. In myopericarditis, chest pain, elevated cardiac enzymes, and electrocardiographic changes occur. Although COVID-19 mRNA vaccines significantly contribute to preventing the COVID-19 disease, rarely myocarditis and/or pericarditis may develop due to these vaccines. We present a previously healthy 14-year-old male patient who developed myopericarditis after receiving the second dose of the COVID-19 mRNA vaccine.

Review : Cureus. 2022 Sep 30;14(9):e29786.

doi: 10.7759/cureus.29786. eCollection 2022 Sep.

A Patient Develops Bullous Rash After Receiving the Second Dose of COVID-19 Vaccine

Syeda S Nida, Gabriel J Tobon, Morgan Wilson, Krati Chauhan

PMID: 36340561 PMCID: PMC9621734 DOI: 10.7759/cureus.29786

Abstract

Our knowledge about the clinical spectrum of COVID-19 has continued to evolve. The clinical features of the infection and vaccine are continuously updated. We present a case of bullous pemphigoid after receiving a second dose of the COVID-19 vaccine. This case highlights autoimmune skin findings seen in a patient after COVID-19 vaccination. A 70-year-old male presented with the chief complaint of blistering skin rash. He received his second dose of Pfizer COVID-19 vaccine two days before developing a painful pruritic maculopapular rash that started on his hands and extended proximally to his trunk. Physical exam was remarkable for tense bullae with negative Nikolsky sign. Biopsy and direct immunofluorescence lead to the diagnosis of bullous pemphigoid. The lesions improved significantly with steroids. Various cutaneous eruptions have been reported with Moderna and Pfizer COVID-19 vaccines, including the new onset of bullous pemphigoid. Based on our case, we suggest that bullous pemphigoid after COVID-19 vaccination is responsive to steroids and the prognosis is excellent. Understanding the clinical course and prognosis of bullous pemphigoid from the COVID-19 vaccine is of significant importance as we strive to keep our patients and communities safe. More data is needed to better guide recommendations, but so far looking at the example from our case, the benefits of COVID-19 vaccination seem to outweigh the risks. Therefore, patients should be advised to continue with future vaccinations.

Review : Child Neurol Open. 2022 Jan 25:9:2329048X221074549.

doi: 10.1177/2329048X221074549. eCollection 2022 Jan-Dec.

A Pediatric Case of Sensory Predominant Guillain-Barré Syndrome Following COVID-19 Vaccination

Yunsung Kim, Zahra Zhu, Puneet Kochar, Patrick Gavigan, Divpreet Kaur, Ashutosh Kumar

PMID: 35097156 PMCID: PMC8793378 DOI: 10.1177/2329048X221074549

Abstract

Over six billion doses of Coronavirus Disease 2019 (COVID-19) vaccines have been administered worldwide. Amidst the global COVID-19 vaccination campaign, vaccine-related side effects are of ongoing concern and investigation. According to the Centers for Disease Control and Prevention (CDC) and the United States Department of Health and Human Services, three main conditions in adults have surfaced in association with receiving the COVID-19 vaccines. These include thrombosis with thrombocytopenia syndrome (TTS), a rare syndrome involving venous or arterial thrombosis and thrombocytopenia, Guillain-Barre syndrome (GBS), and myocarditis. While a number of GBS cases in adults have been published, to our knowledge, only one pediatric case of COVID-19 vaccine-related GBS has been reported. Herein we describe a case of sensory predominant GBS following the Pfizer-BioNTech COVID-19 vaccine in a 16-year-old female presenting with bilaterally ascending upper and lower extremity numbness and paresthesia.

Review : Child Neurol Open. 2022 Jan 25:9:2329048X221074549.

doi: 10.1177/2329048X221074549. eCollection 2022 Jan-Dec.

A Pediatric Case of Sensory Predominant Guillain-Barré Syndrome Following COVID-19 Vaccination

Yunsung Kim, Zahra Zhu, Puneet Kochar, Patrick Gavigan, Divpreet Kaur, Ashutosh Kumar

PMID: 35097156 PMCID: PMC8793378 DOI: 10.1177/2329048X221074549

Abstract

Over six billion doses of Coronavirus Disease 2019 (COVID-19) vaccines have been administered worldwide. Amidst the global COVID-19 vaccination campaign, vaccine-related side effects are of ongoing concern and investigation. According to the Centers for Disease Control and Prevention (CDC) and the United States Department of Health and Human Services, three main conditions in adults have surfaced in association with receiving the COVID-19 vaccines. These include thrombosis with thrombocytopenia syndrome (TTS), a rare syndrome involving venous or arterial thrombosis and thrombocytopenia, Guillain-Barre syndrome (GBS), and myocarditis. While a number of GBS cases in adults have been published, to our knowledge, only one pediatric case of COVID-19 vaccine-related GBS has been reported. Herein we describe a case of sensory predominant GBS following the Pfizer-BioNTech COVID-19 vaccine in a 16-year-old female presenting with bilaterally ascending upper and lower extremity numbness and paresthesia.

Case Reports : Cureus. 2022 Nov 5;14(11):e31118. doi: 10.7759/cureus.31118. eCollection 2022 Nov.

A Possible Case of Autoimmune Encephalitis After mRNA COVID-19 Booster Vaccine: A Case Report

Mohammad Abu-Abaa, Ghassan Dawood, Hassaan Arshad, Omar Jumaah, Daniel Landau

PMID: 36479395 PMCID: PMC9720496 DOI: 10.7759/cureus.31118

Abstract

Over six billion doses of Coronavirus Disease 2019 (COVID-19) As the use of COVID-19 vaccines gains more prevalence, rare and uncommon side effects are reported in the medical literature. This is a case report of a 75-year-old male patient who presented on the second day after receiving the Moderna Bivalent mRNA COVID-19 booster vaccine with abrupt onset behavioral changes and global aphasia with no focal deficits. Stroke and infectious meningitis/encephalitis were ruled out. Signs of aseptic inflammation were seen on cerebrospinal fluid (CSF) analysis. Workup for autoimmune and paraneoplastic encephalitis was unyielding. The observation of rapid clinical improvement prompted watchful waiting that concluded in the resolution of clinical manifestations within less than a week of onset. This case is reported to support the currently limited knowledge of rare neurological sequelae of mRNA vaccine and is in line with recently published few cases that suggest vaccine-related encephalitis.

A potential association between COVID-19 vaccination and development of Alzheimer's disease

Jee Hoon Roh, Inha Jung, Yunsun Suh, Min-Ho Kim

QJM: An International Journal of Medicine, Volume 117, Issue 10, October 2024

Published: 28 May 2024,

Abstract

Background

The challenges of the COVID-19 pandemic extend to concerns about vaccine side effects, particularly potential links to neurodegenerative diseases such as Alzheimer's disease (AD).

Aim: This study investigates the association between COVID-19 vaccination and the onset of AD and its prodromal state, mild cognitive impairment (MCI).

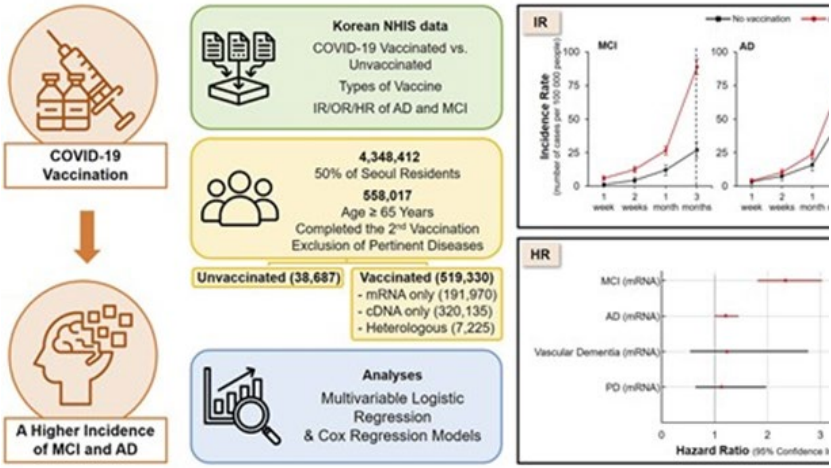
Design: A nationwide, retrospective cohort study leveraging data from the Korean National Health Insurance Service was conducted.

Methods: The study, conducted in Seoul, South Korea, analyzed data from a random 50% sample of city residents aged 65 and above, totaling 558 017 individuals. Participants were divided into vaccinated and unvaccinated groups, with vaccinations including mRNA and cDNA vaccines. The study focused on AD and MCI incidences post-vaccination, identified via ICD-10 codes, using multivariable logistic and Cox regression analyses. Patients with vascular dementia or Parkinson's disease served as controls.

Results: Findings showed an increased incidence of MCI and AD in vaccinated individuals, particularly those receiving mRNA vaccines, within three months post-vaccination. The mRNA vaccine group

exhibited a significantly higher incidence of AD (odds ratio [OR]: 1.225; 95% confidence interval [CI]: 1.025–1.464; P = 0.026) and MCI (OR: 2.377; CI: 1.845–3.064; P < 0.001) compared to the unvaccinated group. No significant relationship was found with vascular dementia or Parkinson's disease.

Conclusions: Preliminary evidence suggests a potential link between COVID-19 vaccination, particularly mRNA vaccines, and increased incidences of AD and MCI. This warrants the need for further research to elucidate the relationship between vaccine-induced immune responses and neurodegenerative processes, advocating for continuous monitoring and investigation into the vaccines' long-term neurological impacts. accurately reported via VAERS or other surveillance systems to support the ongoing effort to ensure vaccine safety.



COVID-19, Coronavirus Disease 2019; NHIS, Natuonal Health Insurance Service; AD, Alzheimer's Disease; MCI, Mild Cognitive Impairment; PD, Parkinson's Disease; IR, Incidence Rrate; OR, Odds Ratio; HR, Hazard ratio

Case Reports : J Pharm Technol. 2022 Aug;38(4):247-250.

doi: 10.1177/87551225221093944. Epub 2022 May 3.

A Possible Case of COVID-19 Booster Vaccine-Associated Rhabdomyolysis and Acute Kidney Injury

Kendra Unger, Charles D Ponte, Dylan Anderson

PMID: 35832563 PMCID: PMC9272487 DOI: 10.1177/87551225221093944

Abstract

Background: Nearly 10 billion doses of the various messenger ribonucleic acid (mRNA) and viral vector vaccines against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) have been administered worldwide. Adverse drug reactions (ADRs) have been overwhelmingly mild to moderate in nature. Rare side effects have included myocarditis/pericarditis, thrombosis with thrombocytopenia syndrome (TTS), Guillain-Barré Syndrome (GBS), and death. However, vaccine-related ADR data are still being collected using a variety of reporting systems. Purpose: We will describe a case of suspected mRNA coronavirus disease 2019 (COVID-19) booster-related rhabdomyolysis in a woman who developed signs and symptoms 10 days after administration of the vaccine dose. With a Naranjo ADR probability score of 4, the vaccine was deemed to be a possible cause of our patient's rhabdomyolysis.

Methods: A search of the VAERS (Vaccine Adverse Event Reporting System) mined in November 2021 revealed 386 reported cases of COVID-19 vaccine-related rhabdomyolysis. However, system limitations make the utility of the information problematic.

Conclusions: It is vitally important that clinicians, scientists, and patients are aware of rhabdomyolysis as a potential side effect of vaccination. Suspected vaccine-related ADRs should be promptly and accurately reported via VAERS or other surveillance systems to support the ongoing effort to ensure vaccine safety.

Case Reports : Cureus. 2023 Jun 28;15(6):e41106.

doi: 10.7759/cureus.41106. eCollection 2023 Jun.

A Probable Association of Aseptic Meningoencephalitis, Complicated With Cerebral Salt Wasting Syndrome Following COVID-19 Vaccination: A Case Report

Ramanathan Ramesh, Arulmoly Kanagasingam, Sithy Sabrina, Uthayakumar Anushanth

PMID: 37519588 PMCID: PMC10382251 DOI: 10.7759/cureus.41106

Abstract

Coronavirus disease-19 (COVID-19) pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) occurred worldwide, and it affected millions of people around the world and killed millions of lives without a definitive treatment. During this challenging time, vaccine production has been hugely carried out leading to the invention of many vaccines against COVID-19. As any vaccine can have some side effects, COVID-19 vaccines also need surveillance and reporting side effects worldwide. Currently, more than 10 vaccines are available against SARS-CoV-2 infection globally. There are many neurological complications reported by SARS-CoV-2 vaccines. There are some reported neurological complications, such as ischemic stroke, Guillain-Barré syndrome, transverse myelitis, Bell's palsy, cerebral venous sinus thrombosis, optic neuritis, meningoencephalitis, small fiber neuropathy, and Tolosa-Hunt syndrome. We present a case of an elderly man who presented with fever, fits, hyponatremia, and polyuria following COVID-19 vaccination and was found to have cerebral salt wasting (CSW) with the exclusion of other causes.accurately reported via VAERS or other surveillance systems to support the ongoing effort to ensure vaccine safety.

Case Reports : J R Coll Physicians Edinb. 2022 Jun;52(2):113-116.
doi: 10.1177/14782715221103660. Epub 2022 Jun 17.

A Probable Association of Aseptic Meningoencephalitis, Complicated With Cerebral Salt Wasting Syndrome Following COVID-19 Vaccination: A Case Report

A probable case of vaccine-induced immune thrombotic thrombocytopenia secondary to Pfizer Comirnaty COVID-19 vaccine

PMID: 36146992 DOI: 10.1177/14782715221103660

Abstract

The accelerated development of various vaccines against COVID-19 was a global effort to curb the COVID-19 pandemic. As a result, several unique vaccine-related adverse events were observed. Vaccine-induced immune thrombotic thrombocytopenia (VITT) has been recognised as a clinically distinct entity with a predisposition for thrombosis at unusual sites with laboratory features of consumptive coagulopathy in addition to anti-PF4 assay seropositivity. The majority of cases reported were associated with adenoviral-based vectors such as ChAdOx1 nCoV-19 (Oxford-AstraZeneca) and Janssen Ad26.COV2.S (Johnson & Johnson). In our online search, we have not found any reports to date of VITT associated with Pfizer-BioNTech Comirnaty mRNA vaccine. We report a case of a previously healthy 76-year-old man who received his first-dose Pfizer Comirnaty vaccine on 11 October 2021 who developed left upper limb swelling on day 2 post-vaccination, which progressively worsened on day 4 post-vaccination. He was confirmed to have left axillary vein thrombosis on computer tomography arteriography/computed tomography venography of left upper limb

on day 5 post-vaccination with new onset aphasia with unilateral limb weakness on day 8 post-vaccination. Magnetic resonance imaging/ magnetic resonance angiography of the brain confirmed acute left middle cerebral artery thrombosis with infarction. Blood investigations showed thrombocytopenia, elevated D-dimer, hypofibrinogenemia in addition to his unusual sites of thrombosis involving both arterial and venous circulation. His IgG ELISA assay for anti-PF4 antibody was positive

Case Reports : Cureus. 2022 Jun 11;14(6):e25860.

doi: 10.7759/cureus.25860. eCollection 2022 Jun.

A Puzzling Diagnosis of Cerebral Vein Thrombosis in a COVID-19-Vaccinated Patient

Isaac Alsallamin, Francisco J Somoza-Cano, Lara Zakarna, Pearl Aggarwal, Rusina Karia, Ameed Bawwab, Deema Chakhachiro,

Afnan Alsallamin

PMID: 35836469 PMCID: PMC9273173 DOI: 10.7759/cureus.25860

Abstract

Cerebral vein thrombosis (CVT) is a rare condition equivalent to deep vein thrombosis of the intracranial veins. Delayed diagnosis will result in severe and disabling complications. We report a case of a 59-year-old man with CVT with no significant past medical or surgical history. On admission, he reported right-sided numbness and weakness concerns, preceded by the sudden onset of bilateral vision loss and dysarthria. Magnetic resonance imaging and computed tomography scans confirmed the diagnosis of CVT. The most interesting relative risk factor was flying overseas twice a month for the last 10 years; each flight was longer than eight hours. Another possible contributing factor to our patient's condition was polycythemia, with a hemoglobin level of 19, but the most questionable and puzzling is the recent coronavirus disease 2019 (COVID-19) vaccination two months, eight months, and one year prior to admission. Our case highlights a rare COVID-19 vaccine-related CVT diagnosis and that close monitoring for new symptoms and signs is vital to prevent life-threatening complications, herniation, and hemorrhagic transformation.

Case Reports : J Arrhythm. 2022 Sep 5;38(5):827-830.

doi: 10.1002/joa3.12773. eCollection 2022 Oct.

A racing heart post-Pfizer/BioNTech BNT162b2

Hooi Khee Teo, Kah Leng Ho, Boon Yew Tan, Chi Keong Ching, Daniel Thuan Tee Chong

PMID: 36226093 PMCID: PMC9535921 DOI: 10.1002/joa3.12773

Abstract

Palpitations is one of the most common side effects experienced post-messenger-RNA COVID-19 vaccines. However, some patients experience significant symptoms and further workup needs to be considered. We present an interesting case of inappropriate sinus tachycardia in a fit gentleman who presented with worsening palpitations and elevated heart rate post-first and -second dose of the Pfizer/BioNTech vaccine.

Case Reports : J Pers Med. 2021 Apr 8;11(4):285. doi: 10.3390/jpm11040285

A Rare Case of Cerebral Venous Thrombosis and Disseminated Intravascular Coagulation Temporally Associated to the COVID-19 Vaccine Administration

Vincenzo D'Agostino, Ferdinando Caranci, Alberto Negro, Valeria Piscitelli, Bernardino Tuccillo, Fabrizio Fasano, Giovanni Sirabella, Ines Marano, Vincenza Granata 5, Roberta Grassi, Davide Pupo, Roberto Grassi

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Chest. 2021 Oct 11;160(4):A680–A681. doi: 10.1016/j.chest.2021.07.646

A Rapidly Progressive And Rare Illness: Autoantibodies Against Melanoma Differentiation-Associated Protein 5 (Anti-Mda5): Amyopathic Dermatomyositis With Progressive Interstitial Lung Disease That Developed After Covid-19 Vaccine

Leonel Carrasco, Ashlie Arthur, Juan Gaitan Rueda, Chad Case

PMCID: PMC8503139

Abstract

Topic: Critical Care

Type: Global Case Reports

Introduction: Anti-MDA5 dermatomyositis is a subtype of dermatomyositischaracterized by a high risk of rapidly progressive interstitial lung disease. It is characterized by fever, progressive shortness of breath, joint swelling and skin ulcerations. (1) There is invariable hyper-ferritinemia and radiographically there is a pattern of diffuse bilateral ground glass opacities. Complications with spontaneous pneumothorax and pneumomediastinum are not uncommon. Diagnosis is confirmed by biopsy as well as serum antibodies against MDA5. A known trigger is viral infection. (2)

Case Presentation: We present the case of a 58-year-old man who was admitted to the Intensive Care Unit on account of respiratory failure and shock. He had a progressive Illness that started 4 days after receiving a novel mRNA COVID-19 Vaccine. He developed bilateral extremities edema, oral sores, worsening fatigue and dyspnea on exertion. He failed

outpatient treatment for empiric pneumonia as well as prednisone for vaccine reaction. He presented to the hospital with fever, progressive dyspnea and fatigue. On physical exam he had oral blisters, digital tip ischemia and ulceration. His vital signs were pertinent for a SpO2 of 90% on ventilator support. A chest CT revealed diffuse and sub-pleural ground-glass opacities.There was an extensive negative infectious work up from serum, urine and BAL samples. These included negative SARS COV2 Antigen and SARS-Cov2 IgG. His inflammatory markers were pertinent for a positive ANA with titer of 1:320, Ferritin of 2,143 mcg/L, LDH of 1,105 U/L and CRP of 2.7mg/dL. Based on this information the differential for amyopathic dermatomyositis with progressive interstitial lung disease was considered. A skin biopsy of his index finger confirmed the diagnosis. His therapeutic interventions through his hospitalization included a trial of stress dose steroids, cyclophosphamide, IVIG, colchicine and tacrolimus. His ICU course was complicated by pneumomediastinum, pneumothorax and pericardial effusion. These were managed by placing a chest tube thoracotomy and pericardial drain respectively. His plan of care was changed to comfort measures after he had a drastic and prolonged desaturation episode without recovery.

DISCUSSION: For conditions that lead to cytokine storm with subsequent development of ARDS or multi-organ dysfunction; there is a progressive clinical deterioration and high risk of death. We had insufficient evidence to definitively demonstrate a direct correlation between the vaccination and the patient's illness.

CONCLUSIONS: In conditions that lead to Cytokine storm with multi-organ dysfunction targeting timely control of this inflammatory cascade via immunomodulation, cytokine antagonist and reduction of inflammatory cell infiltration in particular early in the process could lead to a reduction in mortality.

Chest. Cureus. 2022 Jan 14;14(1):e21244.

doi: 10.7759/cureus.21244. eCollection 2022 Jan.

A Rare Case of Brachial Plexus Neuropraxia After COVID-19 Vaccination

Aditya Sharma, Anuj Gupta

PMID: 35186534 PMCID: PMC8844251 DOI: 10.7759/cureus.21244

Abstract

The brachial plexus injury is a rare complication after vaccination like that of the Influenza virus. Though a well-known and reported complication, there is still a dearth of literature mentioning its pathophysiology, the trend of involvement, symptoms, and treatment. This has also been reported after the coronavirus disease 2019 (COVID-19) vaccination. To the best of our knowledge, to date, only four cases have been reported so far. Every case needs to be reported to better understand the complication and formulate a line of management for better outcomes. We report a case of brachial plexus involvement after Covishield vaccination with complete recovery after treatment.

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doi: 10.7759/cureus.21244. eCollection 2022 Jan.

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Chest. J Pers Med. 2021 Apr 8;11(4):285.

doi: 10.3390/jpm11040285.

A Rare Case of Cerebral Venous Thrombosis and Disseminated Intravascular Coagulation Temporally Associated to the COVID-19 Vaccine Administration

Vincenzo D'Agostino , Ferdinando Caranci , Alberto Negro , Valeria Piscitelli , Bernardino Tuccillo , Fabrizio Fasano , Giovanni Sirabella, Ines Marano , Vincenza Granata , Roberta Grassi , Davide Pupo , Roberto Grassi

PMID: 33917902 PMCID: PMC8068274 DOI: 10.3390/jpm11040285

Abstract

Globally, at the time of writing (20 March 2021), 121.759.109 confirmed COVID-19 cases have been reported to the WHO, including 2.690.731 deaths. Globally, on 18 March 2021, a total of 364.184.603 vaccine doses have been administered. In Italy, 3.306.711 confirmed COVID-19 cases with 103.855 deaths have been reported to WHO. In Italy, on 9 March 2021, a total of 6.634.450 vaccine doses have been administered. On 15 March 2021, Italian Medicines Agency (AIFA) decided to temporarily suspend the use of the AstraZeneca COVID-19 vaccine throughout the country as a precaution, pending the rulings of the European Medicines Agency (EMA). This decision was taken in line with similar measures adopted by other European countries due to the death of vaccinated people. On 18 March 2021, EMA's safety committee concluded its preliminary review about thromboembolic events in people vaccinated with COVID-19 Vaccine AstraZeneca at its extraordinary meeting, confirming the benefits of the vaccine continue to outweigh the risk of side effects, however, the vaccine may be associated with very rare

cases of blood clots associated with thrombocytopenia, i.e., low levels of blood platelets with or without bleeding, including rare cases of cerebral venous thrombosis (CVT). We report the case of a 54-year-old woman who developed disseminated intravascular coagulation (DIC) with multi-district thrombosis 12 days after the AstraZeneca COVID-19 vaccine administration. A brain computed tomography (CT) scan showed multiple subacute intra-axial hemorrhages in atypical locations, including the right frontal and the temporal lobes. A plain old balloon angioplasty (POBA) of the right coronary artery was performed, without stent implantation, with restoration of distal flow, but with persistence of extensive thrombosis of the vessel. A successive thorax angio-CT added the findings of multiple contrast filling defects with multi-vessel involvement: at the level of the left upper lobe segmental branches, of left interlobar artery, of the right middle lobe segmental branches and of the right interlobar artery. A brain magnetic resonance imaging (MRI) in the same day showed the presence of an acute basilar thrombosis associated with the superior sagittal sinus thrombosis. An abdomen angio-CT showed filling defects at the level of left portal branch and at the level of right suprahepatic vein. Bilaterally, it was adrenal hemorrhage and blood in the pelvis. An evaluation of coagulation factors did not show genetic alterations so as the nasopharyngeal swab ruled out a COVID-19 infection. The patient died after 5 days of hospitalization in intensive care.

Chest. Oman J Ophthalmol. 2023 Feb 21;16(1):157-160.

doi: 10.4103/ojo.ojo_31_22. eCollection 2023 Jan-Apr.

A rare case of bilateral optic neuritis post-Covishield (ChAdOx1-S [recombinant]) vaccination

Tanie Natung , Thangjam Amit Singh, Oinam Somapika Devi, Ishita Pandey

PMID: 37007264 PMCID: PMC10062071 DOI: 10.4103/ojo.ojo_31_22

Abstract

Multiple adverse effects have been reported in people receiving the COVID-19 vaccinations including few reports of optic neuritis. However, there is no report till date, of bilateral optic neuritis post-ChAdOx1-S (recombinant) vaccination. We report here, for the first time, such a case in a previously healthy woman. Although a direct causal relationship cannot be proven, there was a temporal association between the vaccination and the onset of optic neuritis. Some vaccine adjuvants inciting disproportionate systemic inflammation, molecular mimicry, and the hypercoagulable state seen after COVID-19 vaccination could be the possible causes for the development of optic neuritis. Clinicians should be aware of this adverse effect apart from various other adverse effects of COVID-19 vaccination.

Chest. Am J Case Rep. 2022 Feb 19:23:e935355. doi: 10.12659/AJCR.935355.

A Rare Case of Coronavirus Disease 2019 Vaccine-Associated Cerebral Venous Sinus Thrombosis Treated with Mechanical Thrombectomy

Hitesh Gurjar, Manjeet Dhallu, Dmitry Lvovsky, Samiyah Sadullah, Sridhar Chilimuri 1PMID: 37007264

PMID: 35181646 PMCID: PMC8870012 DOI: 10.12659/AJCR.935355

Abstract

BACKGROUND Vaccine-related thrombosis and thrombocytopenia syndrome (TTS) is a rare life-threatening syndrome reported after vaccination against COVID-19. CASE REPORT We describe a case of 56-year-old postmenopausal, obese woman with hypothyroidism and hyperlipidemia, who presented to the Emergency Department (ED) with fluctuating mental status and left-side weakness for 5 days. She received her first and second dose of mRNA-1273 vaccine (Moderna) at 12 and 8 weeks, respectively, prior to presentation. She was found to have multiple hemorrhages and infarcts on a computed tomography (CT) scan of the head. She was intubated in the ED for airway protection and mechanically ventilated. Magnetic resonance angiogram and venogram showed multiple infarcts in right frontal, parietal, and left parietal lobes, along with occlusion of left-side transverse sinus, sagittal sinuses, and left internal jugular vein, suggesting cerebral venous sinus thrombosis (CVST). Despite anticoagulation, her clinical condition continued to worsen, and she was referred for emergent endovascular

thrombectomy. Her clinical condition improved after thrombectomy, and she was discharged on warfarin. At 4-month follow-up, she was able to walk with an assistive device and able to carry out activities of daily living with assistance. She is planned for further work-up for hypercoagulable state at follow-up. CONCLUSIONS This case highlights the occurrence of vaccine-related thrombosis 3 months after vaccine administration. Only 2 cases of TTS have been reported so far after mRNA-1273 vaccination (Moderna). To the best of our knowledge, this is the first reported case of CVST presenting 3 months after the first dose of COVID-19 mRNA-1273 vaccine (Moderna).

Case Reports : Indian J Ophthalmol. 2022 Oct;70(10):3721-3723.
doi: 10.4103/ijo.IJO_1619_22.

A rare case of cortical blindness following vaccination against SARS-CoV-2

Asmita Mahajan, Swati Phuljhele

PMID: 36190083 PMCID: PMC9789863 DOI: 10.4103/ijo.IJO_1619_22

Abstract

A 61-year-old male presented with sudden loss of vision in both the eyes about 8 days after the first shot of coronavirus disease 2019 (COVID-19) vaccine (Covishield). On examination, the visual acuity was no perception of light in both the eyes. Contrast-enhanced magnetic resonance imaging (MRI) with diffusion-weighted imaging showed acute cerebral infarcts involving bilateral parieto-occipital region. Considering the temporal correlation with the vaccine shot and absence of any other precipitating factor, we hypothesized that this was probably an immunologic response to the vaccine.

Case Reports : Innov Clin Neurosci. 2022 Apr-Jun;19(4-6):48-50.

Acute Thalamic Ischemic Stroke in an Older Patient Newly Vaccinated with COVID-19 Vaccine Based on Adenoviral Vectors

Kelly Mesa-Gamarra, Mario Pineda-Paternina, Edgar Castillo, Loida Camargo, Alexander Pabón, Jorge Herrera-Pino, Nicole Caldichoury , Pascual A Gargiulo , Yuliana Flórez , Norman López

PMID: 35958969 PMCID: PMC9341316

Abstract

Introduction: Recent reports have shown several cases of cerebrovascular events after vaccination against COVID-19. The effects have been described mainly in women within the first two weeks of receiving the vaccine.

Clinical case: We describe here the first Colombian case of a cerebrovascular event after vaccination against COVID-19 in a 67-year-old woman with a vascular history. Four days after application of the messenger ribonucleic acid (mRNA) vaccine, she exhibited deviation of the labial commissure, ipsilateral ptosis, and limitation of march with lateralization. The event was associated with a subacute ischemic event in the right thalamus in parasagittal situation, changes in chronic ischemic microangiopathy of small vessels, and vascular crossing in the right cerebellar angle, without other alternative causes.

Conclusion: The development and rapid use of vaccines has allowed the hospitalization and mortality statistics associated with COVID-19 to be reduced, but at the same time, it has generated concern about the potential side effects, generating controversy among the general population, especially in individuals with cardiovascular diseases. In our case, we provided evidence for the discussion of potential

cerebrovascular events related to the application of vaccines in older people with a history of cerebrovascular diseases. This was done in order to analyze and control in subsequent studies the modulation of medical history on the likely effects of vaccination. However, despite the unavoidable side effects, the benefits of vaccination are superior.

Case Reports : HCA Healthc J Med. 2022 Dec 30;3(6):343-348. doi: 10.36518/2689-0216.1384. eCollection 2022.

Acute Thrombotic Thrombocytopenic Purpura: Rare and Life-Threatening Side Effect of Recent BNT-162b2 COVID-19 Vaccination

Jay Patel, Muhammad Umair Jahngir, Ahmad Abdulzahir, Ismael Rodriguez

PMID: 37427316 PMCID: PMC10327936 DOI: 10.36518/2689-0216.1384

Abstract

Description Thrombotic thrombocytopenic purpura (TTP) is a rare, potentially life-threatening disorder characterized by uncontrolled and spontaneous clot formation throughout the body. Known secondary causes of TTP include malignancy, bone marrow transplantation, pregnancy, various medications, and HIV infection. TTP in the setting of COVID-19 vaccination is rare and not well reported. Reported cases have been confined primarily to the AstraZeneca and Johnson and Johnson COVID-19 Vaccines. TTP in the setting of Pfizer BNT-162b2 vaccination has only recently been reported. We present a patient with no obvious risk factors for TTP who presented with acute altered mental status and was found to have objective evidence of TTP. To our knowledge, there are very few reported cases of TTP in the setting of a recent Pfizer COVID-19 vaccination.the potential side effects, generating controversy among the general population, especially in individuals with cardiovascular diseases. In our case, we provided evidence for the discussion of potential

Case Reports : Clin Case Rep. 2021 Dec 13;9(12):e05217. doi: 10.1002/ccr3.5217. eCollection 2021 Dec.

Acute thyroid swelling with severe hypothyroid myxoedema after COVID-19 vaccination

Massimo Giusti, Agostino Maio

PMID: 34938565 PMCID: PMC8667292 DOI: 10.1002/ccr3.5217

Abstract

The SARS-CoV-2 virus can trigger thyroid dysfunction. Thyroid dysfunctions after COVID-19 vaccination have been rarely reported. We report the case of overt hypothyroidism in a 61-year-old woman seen after BNT162b2-mRNA vaccination. This case underlines the fact that thyroid function should also be monitored after COVID-19 vaccination, especially in at-risk subjects.

Case Reports : : : J Pediatr Ophthalmol Strabismus 2022 Sep-Oct;59(5):e50-e53.

doi: 10.3928/01913913-20220617-01. Epub 2022 Sep 1.

Abducens and Trochlear Nerve Palsies After COVID-19 Vaccination: Report of Two Cases

Cristina Ginés-Gallego, Elena Hernández-García, Blanca Domingo-Gordo, Rosario Gómez-de-Liaño

PMID: 36149925 DOI: 10.3928/01913913-20220617-01

Abstract

The authors report two cases of an abducens palsy and a trochlear nerve palsy, respectively, in two patients who received a coronavirus disease 2019 (COVID-19) vaccine 2 weeks previously. Given the lack of other symptoms, normal test results, and spontaneous resolution of the diplopia, a likely association with the COVID-19 vaccine was suggested. [J Pediatr Ophthalmol Strabismus. 2022;59(5):e50-e53.].

Case Reports : Case Reports: CEN Case Rep 2022 Aug;11(3):302-308.
doi: 10.1007/s13730-021-00670-2. Epub 2022 Jan 6.

Abrupt worsening of occult IgA nephropathy after the first dose of SARS-CoV-2 vaccination

Yoko Fujita, Keisuke Yoshida, Daisuke Ichikawa, Yugo Shibagaki , Masahiko Yazawa

PMID: 34988883 PMCID: PMC8731180 DOI: 10.1007/s13730-021-00670-2

Abstract

Here, we report a case of abrupt onset of gross hematuria and nephrotic range proteinuria after the first dose of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination, which led to a diagnosis of immunoglobulin A nephropathy (IgAN). A Japanese woman in their forties with a significant medical history of occult blood by urine dipstick test (over the past 3 years) presented with fever, chills, shivering, marked thrombocytopenia, and gross hematuria 9 days after the first dose of the BNT162b2 mRNA vaccine (Pfizer) against SARS-CoV-2 infection. Although thrombotic microangiopathy (TMA) was first suspected as the cause of the severe thrombocytopenia, TMA was clinically excluded after two sessions of plasma exchange were performed. Renal biopsy was performed as the patient's platelet count improved. We made a diagnosis of acute worsening IgAN, triggered by the first dose of SARS-CoV-2 vaccination. In this case, we speculated that vaccine-induced immune activation may be involved in the exacerbation of occult IgAN, leading to the definite diagnosis. We should pay more attention to the development/worsening of clinically significant kidney disease after SARS-CoV-2 vaccination not only in those with known glomerular disease but also in those with only mild urinary abnormality

Case Reports : Case Reports: CEN Case Rep 2022 Aug;11(3):302-308.
doi: 10.1007/s13730-021-00670-2. Epub 2022 Jan 6.

Acantholytic Dyskeratosis Post-COVID Vaccination

Kevin Yang , Lisa Prussick, Rebecca Hartman, Meera Mahalingam

PMID: 35170477 DOI: 10.1097/DAD.0000000000002150

Abstract

Acantholytic dyskeratosis mimicking Grover disease as a cutaneous manifestation of a side effect to the Moderna (mRNA-1273) COVID vaccine is rare with only one documented case in the literature to date. Herein, we present a case of an eruptive, erythematous, vesiculopapular rash developing in a patient after the Moderna vaccine. Histopathology of a representative biopsy [x2, done 8 weeks apart] of the rash revealed similar histopathologic findings of patchy suprabasal acantholysis with dyskeratotic keratinocytes and an underlying inflammatory infiltrate of lymphocytes and neutrophils. Direct immunofluorescence was negative. In contrast to the only case previously reported in the literature, a confounding feature in our case, was that patient had a medical history significant for Grover disease, which had been successfully treated with complete resolution and seemed to be in remission. Given the temporal relationship of the onset of the rash to vaccine administration, the changes were likely vaccine-related with the caveat that, in light of the medical history, the differential diagnosis includes reactivation of Grover disease by the vaccine as a trigger factor.

Case Reports : Eur J Haematol 2022 Aug;109(2):186-194.

doi: 10.1111/ejh.13788. Epub 2022 Jun 1

Acquired aplastic anemia following SARS-CoV-2 vaccination

Alexander Röth, Stefanie Bertram, Thomas Schroeder, Thomas Haverkamp , Sebastian Voigt , Caroline Holtkamp, Hannes Klump, Bernhard Wörmann, Hans Christian Reinhardt, Ferras Alashkar

PMID: 35592930 PMCID: PMC9347507 DOI: 10.1111/ejh.13788

Abstract

COVID-19 is a potential life-threatening viral disease caused by SARS-CoV-2 and was declared a pandemic by the WHO in March 2020. mRNA-based SARS-CoV-2 vaccines are routinely recommended in immune-compromised patients, including patients with AA, as these patients are at increased risk of contracting COVID-19 and developing a more severe course of disease. Between March 2021 and November 2021 relapse of AA occurred in four (age [median]: 53 years, range 30-84 years) out of 135 patients currently registered at our department and two de novo cases of AA in temporal context to vaccination against SARS-CoV-2, were documented. Median time after first COVID-19 vaccination and relapse of AA was 77 days. All relapsed patients were vaccinated with the mRNA-based vaccine Comirnaty®. Relapse in two out of the four patients was refractory to CsA/eltrombopag, favoring IST with hATG/CsA or BMT, respectively. Our observations should prompt clinicians to take vaccine-induced relapse of AA or de novo AA after SARS-CoV-2 vaccination into account. Furthermore, careful clinical monitoring and vigilance for signs or symptoms that may indicate relapse of AA (e.g., bleeding complications) are indicated.

Case Reports : First published online March 4, 2024

Acquired Aquagenic Syringeal Keratoderma Following COVID-19 Infection

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Volume 20, Issue 1 https://doi.org/10.1177/15589447241233371

PMID: 35592930 PMCID: PMC9347507 DOI: 10.1111/ejh.13788

Abstract

Aquagenic syringeal keratoderma (ASK), rare in males, is characterized by the rapid onset of edematous palmar wrinkling with small white papules after brief contact with water or sweat. A 24-year-old atopic male presented with a 2-week subacute history of bilateral palmar edema with whitish-colored papules after exposure to water, 3 months after having had COVID-19 infection treated with a full course of ritonavir-boosted nirmatrelvir (PAXLOVIDTM). He had received 3 COVID-19 vaccines (Pfizer, New York, NY) about 12 months prior. Workup was negative. Initial spontaneous near-resolution 2 months after onset was temporary, with recurrence 1 month later. Treatment with 12% topical aluminum chloride was ineffective. Botulinum toxin injection to both palms led to resolution of symptoms that has been sustained for 7 months. The association between atopy and ASK remains weak. We present a case of new-onset ASK in an adult male 3 months following COVID-19 infection without a history of excessive handwashing. Our patient may have had a predisposition to recurrent ASK due to his history of atopy including atopic dermatitis and food allergy anaphylaxis combined with prior COVID-19 infection. It is possible that ASK is a novel manifestation of post-acute sequelae of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (PASC) infection or long COVID.

Case Reports : EJHaem 2023 Mar 10;4(2):532-543.

doi: 10.1002/jha2.604. eCollection 2023 May.

Acquired hemophilia A (AHA) due to anti-SARS-CoV-2 vaccination: A systematic review

Fnu Amisha, Prachi Saluja, Paras Malik, Frits Van Rhee

Volume 20, Issue 1 https://doi.org/10.1177/15589447241233371

PMID: 37206259 PMCID: PMC10188482 DOI: 10.1002/jha2.604

Abstract

Vaccination against SARS-CoV2 has been the largest vaccination campaign over the past two decades. The aim of this study is to qualitatively assess the reported cases of acquired hemophilia A (AHA) that developed after COVID-19 vaccination to further elaborate on incidence, presentation, treatment, and outcomes.We queried Medline (PubMed), Google Scholar, and Embase databases to find reported cases of AHA after COVID-19 vaccines. We found 14 studies (19 cases) for this descriptive analysis. Most patients were elderly (mean age 73 years) and males (n = 12) with multiple comorbidities. All cases developed after mRNA vaccines - BNT162b2 Pfizer-BioNTech (n = 13) and mRNA-1273 Moderna (n = 6). All except one patient were treated, with the most common therapy being a combination of steroids, immunosuppression, and rFVIII (n = 13). Two patients died due to acute respiratory distress, and gall bladder rupture with persistent bleeding, respectively. While evaluating a patient with bleeding diathesis after COVID-19 vaccination, AHA should be kept in the differential diagnosis. Given the low incidence, we believe that the benefit of vaccination still outweighs the risk of disease acquisition.with prior COVID-19 infection. It is possible

Case Reports : Proc (Bayl Univ Med Cent) 2022 May 23;35(5):683-685.
doi: 10.1080/08998280.2022.2071121. eCollection 2022.

Acquired hemophilia A after vaccination against SARS-CoV-2 with the mRNA-1273 (Moderna) vaccine

Ava Melmed, Andrew Kovoor, Korie Flippo

PMID: 35991728 PMCID: PMC9373746 DOI:10.1080/08998280.2022.207111

Abstract

Acquired hemophilia A is a rare bleeding diathesis most typically seen in systemic rheumatic disease, solid and hematologic malignancies, and pregnancy. We present a case of this condition that occurred immediately after vaccination against SARS-CoV-2 with the mRNA-1273 (Moderna) vaccine.

Case Reports : J Oncol Pharm Pract 2022 Sep;28(6):1450-1453.
doi: 10.1177/10781552221075545. Epub 2022 Jan 28.

Acquired Hemophilia A following Pfizer-BioNTech SARS CoV-2 mRNA vaccine, successfully treated with prednisolone and rituximab

Aarya Murali, Philip Wong, Peter J Gilbar, Hilda M Mangos

PMID: 35088622 DOI: 10.1177/10781552221075545

Abstract

Introduction: Acquired haemophilia A (AHA) is a rare bleeding disorder, characterised by the presence of autoantibodies to clotting factor VIII (FVIII). AHA can be idiopathic or occur in the context of malignancy, autoimmune disease, drugs, or pregnancy. Recently, cases of AHA following both COVID-19 infection and vaccination have been reported.

Case report: We report the case of a 95-year-old female who was immunised with the Pfizer-BioNTech SARS CoV-2 mRNA vaccine, with doses given three weeks apart. Spontaneous bruising over her extremities appeared one week after the initial dose, with hospital admission occurring three weeks after the second. Examination revealed a large haematoma on the dorsum of the right hand with resultant bleeding and widespread ecchymoses. Investigations confirmed a diagnosis of AHA.

Management and outcome: Initial management included high dose prednisolone, recombinant Factor VIII and tranexamic acid. There was no significant clinical improvement after three days, so intravenous rituximab 100 mg weekly for four weeks was commenced. The activated

partial thromboplastin time (aPTT) normalised after two doses and Factor VIII level reached 0.68U/ml on day + 22. The patient was successfully discharged from hospital after 37 days.

Discussion: Four cases of AHA following administration of COVID mRNA vaccines (Pfizer and Moderna) have been documented. AHA should be a differential in patients presenting with bleeding following COVID-19 vaccination, in the presence of a normal platelet count. Rapid recognition, prompt initiation of immunosuppressive treatment and rigorous supportive cares are required to minimise morbidity and mortality.

Case Reports : Cureus 2022 Feb 4;14(2):e21909.

doi: 10.7759/cureus.21909. eCollection 2022 Feb.

Acquired Hemophilia A Post-COVID-19 Vaccination: A Case Report and Review

Hussam Al Hennawi, Mohammad K Al Masri, Mohamad Bakir, Mohieddin Albarazi, Feras Jazaeri, Talal N Almasri, Sami J Shoura, Abdul Rahman R Barakeh, Abdulrahman Taftafa, Muhammad K Khan, Henry Zaleski

PMID: 35265430 PMCID: PMC8898568 DOI: 10.7759/cureus.21909

Abstract

Acquired hemophilia A (AHA) is an inhibitory coagulopathy that represents a rare variant of hemorrhagic syndromes. We present a case of idiopathic AHA in a 75-year-old male patient with a cutaneous hematoma that could be attributed to a recent COVID-19 vaccination. The aim of this report is to raise awareness of a possible association between AHA and COVID-19 vaccination and to review similar reported cases and management plans to prevent the development of possible morbidity and debilitating complications. This case illustrates an exceptionally rare side effect of the COVID-19 vaccination. The advantages of obtaining the COVID-19 vaccine outweigh the risks. rituximab 100 mg weekly for four weeks was commenced. The activated

Case Reports : Res Pract Thromb Haemost 2022 Sep 9;6(6):e12785.

doi: 10.1002/rth2.12785. eCollection 2022 Aug.

Acquired hemophilia following COVID-19 vaccination: Case report and review of literature

Michiel Happaerts, Thomas Vanassche

PMID: 36176309 PMCID: PMC9459413 DOI: 10.1002/rth2.12785

Abstract

Background: Acquired hemophilia A (AHA) is a rare bleeding disorder that can lead to spontaneous hemorrhage or bleeding induced by invasive procedures or trauma. We describe a patient who presented with multiple hematomas and a relapse of bullous pemphigoid shortly after his first dose of Vaxzevria ChAdOx1-S COVID-19 vaccination. We reviewed literature for cases of AHA following COVID-19 vaccination.

Key clinical question: Can COVID-19 vaccines induce (a recurrence of) AHA?

Clinical approach and conclusions: The diagnosis of AHA with a relapse of bullous pemphigoid was made. The patient was treated with recombinant activated factor VII, emicizumab, rituximab, and methylprednisolone. There were no further bleeding events. However, the patient deteriorated because of sepsis and died on the fifteenth day of admission.

Conclusion: Vaccines may trigger autoimmune events such as AHA. However, proof of causality is not possible and in this case the relapse of bullous pemphigoid before vaccination challenges this even more.

Case Reports : Caspian J Intern Med 2022;13(Suppl 3):299-302. doi: 10.22088/cjim.13.0.299.

Acquired thrombotic thrombocytopenic purpura after AstraZeneca vaccine: A case report

Fatemeh Yaghoubi, Davood Dalil

PMID: 35872667 PMCID: PMC9272963 DOI: 10.22088/cjim.13.0.299

Abstract

Background: Rare cases of acquired thrombotic thrombocytopenic purpura (aTTP) have been reported since the administration of the COVID-19 vaccination. Based on our information, the present study provides the first case report of aTTP developed after the COVID-19 vaccination in Iran.

Case presentation: A 22-year-old Iranian woman presented with symptoms of ataxia, dysphasia, paresthesia, and acute numbness of her left upper limb four weeks after the AstraZeneca COVID-19 vaccination. Laboratory data suggested hemolytic anemia and thrombocytopenia. Also, schistocytes were noted on her peripheral blood smear. Acquired thrombotic thrombocytopenic purpura (aTTP) was diagnosed in accordance with clinical manifestations along with initial blood test results and was confirmed later through findings of ADAMTS-13 low level activity and the ADAMTS-13 positive inhibitor. She underwent 22 sessions of plasma exchange, receiving corticosteroid and rituximab. Finally, the treatment was successful.

Conclusion: Despite the presence of rare complications such as aTTP, vaccination is one of the best ways to prevent COVID-19 disease. The present case report describes the potential, but unproven, role of the AstraZeneca COVID-19 vaccine in aTTP pathogenesis. Vaccine-associated aTTP can be successfully treated with plasma exchange, corticosteroids, and rituximab.

Review : Lab Med 2022 Nov 3;53(6):e145-e148. doi: 10.1093/labmed/lmac016.

Acquired Thrombotic Thrombocytopenic Purpura After BNT162b2 COVID-19 Vaccine: Case Report and Literature Review

Emna Hammami, Mathilde Lamarque, Olivier Aujoulat, Agathe Debliquis, Bernard Drénou, Inès Harzallah

PMID: 35482291 PMCID: PMC9129115 DOI: 10.1093/labmed/lmac016

Abstract

Thrombotic thrombocytopenic purpura (TTP) is a thrombotic microangiopathy that is deadly if not treated promptly. The treatment of choice in patients presenting with TTP is plasma exchanges. However, immunosuppressive therapy and caplacizumab have significantly improved outcomes in TTP. This microangiopathy is classically divided into 2 entities: hereditary and acquired TTP (aTTP), caused by an autoantibody against ADAMTS 13. We present a case study of a patient wth TTP occurring after a second dose of the BNT162b2 (Pfizer-BioNTech) COVID-19 vaccine along with a review of the literature. A 55-year-old patient presented with gastrointestinal symptoms, anemia, and severe thrombocytopenia. The blood film revealed the presence of schistocytes. A diagnosis of aTTP was established because the patient had severe ADAMTS 13 deficiency and autoantibodies against ADAMTS 13 were positive. This episode occurred 10 days after the patient received the COVID-19 vaccine. The patient received plasma exchanges, prednisone, rituximab, and caplacizumab and achieved complete remission. Ten patients with aTTP induced by the COVID-19

vaccine have been reported in the literature. Most of these situations occurred after the second dose of COVID-19 vaccine, and 7 patients were noted to have received the BNT162b2 vaccine. Caplacizumab was used in 6 patients, and complete remission was achieved in 8 patients.

Case Reports : Intern Med 2022 Feb 1;61(3):407-412. doi: 10.2169/internalmedicine.8568-21. Epub 2021 Nov 20.

Acquired Thrombotic Thrombocytopenic Purpura Following BNT162b2 mRNA Coronavirus Disease Vaccination in a Japanese Patient

Kikuaki Yoshida , Ayaka Sakaki, Yoriko Matsuyama, Toshiki Mushino, Masanori Matsumoto, Takashi Sonoki, Shinobu Tamura

PMID:34803105PMCID:PMC8866790DOI:10.2169/internalmedicine.8568-21

Abstract

A 57-year-old man without underlying diseases presented with fatigue, loss of appetite, and jaundice 1 week after receiving the first dose of the BNT162b2 mRNA coronavirus disease 2019 (COVID-19) vaccine and showed hemolytic anemia with fragmented erythrocytes and severe thrombocytopenia 2 weeks after receiving the vaccine. An a disintegrin-like and metalloproteinase with thrombospondin type 1 motifs 13 (ADAMTS13) activity level of <10% and ADAMTS13 inhibitor positivity confirmed the diagnosis of acquired thrombotic thrombocytopenic purpura (TTP). Combination therapy with plasma exchange, corticosteroid, and rituximab improved the clinical outcome. We herein report the first Japanese case of TTP possibly associated with vaccination. Physicians should be alert for this rare but life-threatening hematological complication following COVID-19 vaccination. exchanges, prednisone, rituximab, and caplacizumab and achieved complete remission. Ten patients with aTTP induced by the COVID-19

Case Reports: EJHaem 2021 Nov 16;3(1):207-210. doi: 10.1002/jha2.342. eCollection 2022 Feb.

Acquired thrombotic thrombocytopenic purpura following Pfizer COVID-19 vaccination

Mawaddah Alislambouli, Andy Veras Victoria, Jyoti Matta, Faye Yin

PMID: 34909764 PMCID: PMC8657522 DOI: 10.1002/jha2.342

Abstract

Acquired thrombotic thrombocytopenic purpura (aTTP) is a rare disease and has occasionally been described after vaccination, especially against viral agents. We present a case of a patient who presents with the classic pentad of TTP a few days after receiving the first dose of the mRNA Pfizer COVID-19 vaccine. To our knowledge, this is the second report of a de novo TTP following mRNA Pfizer COVID-19 vaccination.

Case Reports: EJHaem 2021 May 18;2(3):534-536. doi: 10.1002/jha2.219. eCollection 2021 Aug.

Acquired thrombotic thrombocytopenic purpura with possible association with AstraZeneca-Oxford COVID-19 vaccine

Mona Al-Ahmad, Mona Al-Rasheed, Neveen Abo Bakr Shalaby

PMID: 34226899 PMCID: PMC8242544 DOI: 10.1002/jha2.219

Abstract

Acquired thrombotic thrombocytopenic purpura is characterized by the microvascular aggregation of platelets and microangiopathic hemolytic anemia causing ischemia of multiple organs including the brain mainly and less likely the kidney and the heart. The disease is caused by severe reduction in the activity of ADAMTS 13 due to presence of inhibitory antibodies.

Case Reports: J Thromb Haemost 2021 Sep;19(9):2314-2317. doi: 10.1111/jth.15420. Epub 2021 Jul 7.

Acquired thrombotic thrombocytopenic purpura: A rare disease associated with BNT162b2 vaccine

Hannah Maayan, Ilya Kirgner, Odit Gutwein, Katrin Herzog-Tzarfati, Naomi Rahimi-Levene, Maya Koren-Michowitz, Dorit Blickstein

PMID: 34105247 PMCID: PMC8237075 DOI: 10.1111/jth.15420

Abstract

Background: In December 2020 the Israeli Health Ministry began a mass vaccination campaign with the BNT162b2 vaccine. This was an important step in overcoming the severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) pandemic. Autoimmune phenomenon have been described after receiving vaccinations.

Patients/methods: Here we describe a case series of patients who developed acquired Thrombotic Thrombocytopenic Purpura, a rare autoimmune disease, within several days of receiving the BNT162b2 vaccine.

Conclusions: A disintegrin and metalloproteinase with a thrombospondin type 1 motif, member 13 (ADAMTS13) activity should be evaluated in patients with history of aTTP before and after any vaccination, especially the SARS-CoV-2 vaccination, and immunosuppression treatment should be considered before vaccination in cases of low ADAMTS13 activity. Patients should be closely monitored after the vaccine for clinical situation and laboratory data. Post vaccination thrombocytopenia assessment should include immune thrombocytopenic purpura, vaccine-induced immune thrombotic thrombocytopenia and acquired thrombotic thrombocytopenic purpura

Case Reports: Med Clin (Barc) . 2021 May 11;157(10):506. [Article in Spanish] doi: 10.1016/j.medcli.2021.04.021

Acral haemorrhage after the second dose administration of SARS-CoV-2 vaccine. A post-vaccinal reaction?

F Javier Melgosa Ramos,Andrea Estébanez Corrales, Almudena Mateu Puchades

PMCID: PMC8112292 PMID: 34092400

Abstract

Presentamos el caso de una mujer de 35 años, profesional de la salud, que acudió al servicio de dermatología tras la aparición de lesiones hemorrágicas levemente dolorosas en los pulpejos de los dedos de ambas manos tras 4 días de la administración de la segunda dosis de la vacuna de Pfizer contra el severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Figura 1, Figura 2). No presentaba clínica sistémica, signos de infección, lesiones en otra localización ni otra dermatosis de base. Negó la ingesta de fármacos y la realización de procedimientos diagnósticos invasivos en los últimos 2 meses. Como único antecedente destacaba una diabetes mellitus bien controlada, con la cual comenzó hacía 4 años. Tampoco presentaba historia personal o familiar de coagulopatía o enfermedades autoinmunes. Se realizó una prueba de reacción en cadena de la polimerasa de SARS-CoV-2 que fue negativa, junto a una analítica con glucemia, perfil lipídico, coagulación, proteína C reactiva, velocidad de sedimentación globular y hemograma que fueron todos normales. Los autoanticuerpos, las

crioglobulinas y los anticuerpos antifosfolípido fueron negativos. Tras descartar las principales entidades asociadas al desarrollo de este tipo de lesiones se atribuyó la aparición de las mismas a la administración de la segunda dosis de la vacuna de Pfizer contra el SARS-CoV-2, pudiendo deberse a una reacción de hipersensibilidad retardada y/o a una alteración transitoria de la coagulación en el contexto del proceso de inmunización.data. Post vaccination thrombocytopenia assessment should include immune

Figura 1.

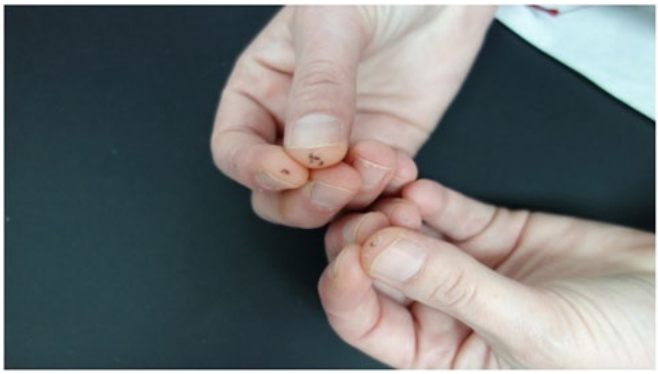
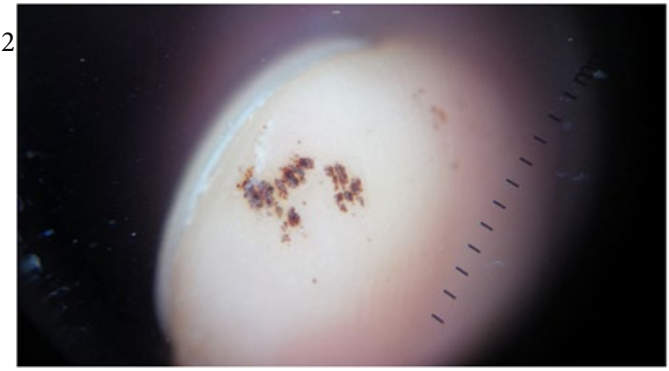


Figura 2



ACS Risk Biomarkers Significantly Increase After mRNA COVID-19 Vaccine

Cardiology Advisor Contributing Writer

Publish Date: November 18, 202

Increases in PULS Cardiac Test scores after mRNA vaccinations suggest a significantly higher risk of developing acute coronary syndrome, according to findings presented at AHA 2021.

The risk of developing acute coronary syndrome (ACS) significantly increased in patients after receiving mRNA COVID-19 vaccines, according to a report presented at the American Heart Association (AHA) Scientific Sessions 2021, held from November 13 to 15, 2021.

The study included 566 men and women (1:1) aged 28-97 years, who were patients in a preventive cardiology practice. All patients received a new PULS Cardiac Test 2-10 weeks after their second COVID-19 vaccine. This test result was compared with a PULS score from 3-5 months prevaccination. The PULS Cardiac Test measures multiple protein biomarkers, including hepatocyte growth factor [HGF], soluble Fas, and IL-16, and uses the results to calculate a 5-year risk score for new ACS. The PULS score increases with above-normal elevation. All participants received this test every 3-6 months for 8 years.

From prevaccination to postvaccination, the levels of IL-16 increased from 35=/-20 to 82=/-75 above the norm. Soluble Fas showed an increase from 22±15 to 46=/-24 above the norm. HGF rose from 42±12 to 86±31 above the norm. As a result, the 5-year ACS PULS risk score increased from 11% to 25%. By the time the report was published, changes had persisted for 2.5 months or more after the second vaccine dose.

The study author concluded that "mRNA [vaccines] dramatically increase inflammation on the endothelium and T cell infiltration of cardiac muscle and may account for the observations of increased thrombosis, cardiomyopathy, and other vascular events following vaccination."

Case Reports: Indian J Ophthalmol . 2021 Dec;69(12):3764-3766.doi: 10.4103/ijo.IJO_1968_21.

Acute abducens nerve palsy after COVID-19 vaccination in a young adult

Neelam Pawar, Meenakshi Ravindran, S Padmavathy, Sabyasachi Chakrabarty

PMID: 34827043 PMCID: PMC8837376 DOI: 10.4103/ijo.IJO_1968_21

Abstract

We present the case of a 23-year-old young man with left-eye abducens nerve palsy following the COVID-19 vaccination. Given the temporal relationship between vaccination and the onset of symptoms, the lack of systemic history, and unremarkable magnetic resonance imaging, the patient's abducens nerve palsy was related to his vaccination. The ophthalmologist should be aware of this neurotropic sequela of COVID-19 vaccination in young adults.

Case Reports: J AAPOS. 2021 Oct;25(5):302-303.

doi: 10.1016/j.jaapos.2021.05.003. Epub 2021 May 24.

Acute abducens nerve palsy following COVID-19 vaccination

Daniela P Reyes-Capo, Shanlee M Stevens, Kara M Cavuoto

PMID: 34044114 PMCID: PMC8142812 DOI: 10.1016/j.jaapos.2021.05.003

Abstract

We report the case of a healthy 59-year-old woman who presented with an acute abducens nerve palsy 2 days after receiving the Pfizer-BioNTech COVID-19 vaccine. In adults, such palsies are typically caused by microvascular disease or compressive tumors, although they have also been described after routine vaccinations. Given the temporal relationship between vaccination and the onset of symptoms, the lack of preexisting medical conditions, and unremarkable magnetic resonance imaging, the patient's abducens nerve palsy was felt to be related to her vaccination. This case highlights the importance of recognizing the potential of a COVID-19 vaccine to have neurologic sequelae similar to those that as have been reported with the virus itself as well as with other vaccines.

Case Reports: J Pediatr Ophthalmol Strabismus. 2021 Nov-Dec;58(6):e49-e50.

doi: 10.3928/01913913-20210920-01. Epub 2021 Nov 1.

Acute Abducens Nerve Palsy Following the Second Dose of the AstraZeneca COVID-19 Vaccine

Arpitha Pereira, Roger S Haslett

PMID: 34851785 DOI: 10.3928/01913913-20210920-01

Abstract

The authors report the case of an otherwise healthy 65-year-old man who presented with an acute right abducens nerve palsy 3 days after receiving the second dose of the AstraZeneca coronavirus disease 2019 (COVID-19) vaccine. Abducens nerve palsies typically results from microvascular disease or compressive tumors, although they are known to arise following routine vaccinations. Given the lack of preexisting risk factors, normal computed tomography scan results, and the timing of the symptoms, the abducens nerve palsy was believed to be related to the vaccination. This report highlights the potential neurologic adverse effects associated with COVID-19 vaccines. ***[J Pediatr Ophthalmol Strabismus. 2021;58(6):e49-e50.].***

Case Reports: Indian J Ophthalmol. 2023 May;71(5):2279-2281.doi: 10.4103/ijo.IJO_1778_22.

Acute abducens nerve palsy with acute disseminated encephalomyelitis-like presentation following COVID-19 vaccination

Iva R Kalita, Harsh V Singh, Swati Sharma

PMID: 34851785 DOI: 10.3928/01913913-20210920-01

Abstract

We report two adult cases of abducens nerve palsy presenting immediately (within weeks) after they received the first dose of Covishield vaccination. Magnetic resonance imaging (MRI) of the brain obtained after the onset of diplopia demonstrated demyelinating changes. The patients had associated systemic symptoms. Post-vaccination demyelination typically known as acute disseminated encephalomyelitis (ADEM) associated with several vaccines is more common in children. Although the mechanism of the nerve palsy remains unclear, it is suspected to be related to the post-vaccine neuroinflammatory syndrome. Cranial nerve palsies and ADEM-like presentations may represent part of the neurologic spectrum following COVID-vaccination in adults, and ophthalmologists should be aware of these sequelae. Although cases of sixth nerve palsy following COVID vaccination are already reported, associated MRI changes have not been reported from India

Case Reports: IPan Afr Med J. 2022 Apr 11:41:291. doi: 10.11604/pamj.2022.41.291.33047. eCollection 2022

Acute acalculous cholecystitis following COVID-19 vaccination: a case report

Fabien Mukonki Kyungu, Aude Mukonki Katumba, Hermann Luhavo Kamwira, Aime Vonda Mayikuli, Adou Mala, Manix Ilunga Banza , Haladou Mahaman Manirou, Fiston Bolanda Tosali, Philippe Cilundika Mulenga

PMID: 35855047 PMCID: PMC9250664 DOI: 10.11604/pamj.2022.41.291.33047

Abstract

Acute acalculous cholecystitis is an acute inflammation of the gallbladder in the absence of stones, usually occurring in elderly and critically ill patients with underlying conditions. A 29-year-old man presented to the hospital complaining of abdominal pain in the right hypochondrium with permanent fever three days after Janssen COVID-19 vaccine inoculation. Abdominal ultrasound revealed a thickened gallbladder wall without evidence of gallstone consistent of an acute acalculous cholecystitis. Blood analyses revealed thrombocytopenia, eosinophilia and liver dysfunction. The Polymerase Chain Reaction (PCR) COVID-19 test was negative. As treatment, the patient benefited of pain management, antibiotic and fluid. In the evolution, there was a regression of clinical signs with persistence of liver dysfunction. The patient was discharged ten days after hospitalization. The Janssen COVID-19 vaccine is likely to induce acute acalculous cholecystitis as adverse event following vaccination.

Case Reports: JAMA. 2021 Apr 20;325(15):1562-1565.doi: 10.1001/jama.2021.3976.

Acute Allergic Reactions to mRNA COVID-19 Vaccines

Kimberly G Blumenthal, Lacey B Robinson, Carlos A Camargo Jr, Erica S Shenoy, Aleena Banerji, Adam B Landman, Paige Wickner

PMID: 33683290 PMCID: PMC7941251 DOI: 10.1001/jama.2021.3976

Abstract

This study examines the incidence of acute allergic reactions to mRNA COVID-19 vaccine administrations in health care employees in Massachusetts.

PubMed Disclaimer

Conflict of interest statement

Conflict of Interest Disclosures: Dr Blumenthal reported receiving grants from the American Academy of Allergy Asthma and Immunology (AAAAI) Foundation, CRICO, and Massachusetts General Hospital outside the submitted work. Dr Camargo reported receiving grants from the National Institutes of Health (NIH) outside the submitted work. Dr Landman reported receiving personal fees from Abbott Medical Device Cybersecurity Council outside the submitted work. Dr Wickner reported receiving grants from CRICO outside the submitted work. No other disclosures were reported.

Case Reports: J Surg Case Rep. 2022 Jun 22;2022(6):rjac295.doi: 10.1093/jscr/rjac295. eCollection 2022 Jun

Acute appendicitis following the COVID-19 vaccine

Ani Oganesyan, Michal Schäfer, Caitlyn Lesh

PMID: 35755010 PMCID: PMC9216478 DOI: 10.1093/jscr/rjac295

Abstract

We report the case of a previously healthy 69-year-old female who developed appendicitis after receiving the third dose of the Pfizer-BioNTech Coronavirus Disease 2019 (COVID-19) vaccine; no other triggers were identified. We speculate that an association exists which may be mediated by colonic lymphoid hyperplasia, a condition that might be indicative of an enhanced immunological mucosal response to antigenic stimulation. As widespread vaccination coverage continues, it is crucial to monitor and accurately report the adverse reactions that may otherwise remain unidentified in vaccination trials. Therefore, we suggest that adults experiencing spontaneous, severe abdominal pain following COVID-19 vaccination may benefit from seeking emergent medical care. Likewise, providers should have a low threshold to consider and evaluate patients for appendicitis. If a true causal link is identified, the risk must also be deliberated in context with the millions of patients who have been safely vaccinated and the known morbidity and mortality from COVID-19 infection.

Case Reports: Br J Clin Pharmacol. 2023 Feb;89(2):551-555.doi: 10.1111/bcp.15421. Epub 2022 Jun 7.

Acute appendicitis in a patient immunised with COVID-19 vaccine: A case report with morphological analysis

Ettore Marconi, Giada Crescioli, Roberto Bonaiuti, Lavinia Pugliese, Raffaella Santi, Gabriella Nesi, Elisabetta Cerbai, Alfredo Vannacci, Niccolò Lombardi

PMID: 35633085 PMCID: PMC9348236 DOI: 10.1111/bcp.15421

Abstract

Although the benefit/risk profile for mRNA COVID-19 vaccines is recognised as extremely favourable, appendicitis is currently considered an adverse event (AE) of special interest. We describe the case of a 58-year-old female who presented with signs and symptoms of appendicitis approximately 48 hours after her first injection of the Pfizer-BioNTech vaccine. Abdominal ultrasound revealed fluid collection in the right iliac fossa and cecal wall thickening. Following the surgical visit, CT scan with contrast showed a distended appendix with thickened walls, suggestive of acute appendicitis. The patient tested negative to upper respiratory COVID-19 reverse transcription-polymerase chain reaction. Clinical trials and observational studies suggest a possible association between appendicitis and COVID-19 vaccines. Th-1 driven granulomatous inflammation reported in our case represents an infrequent nonspecific chronic inflammation of the appendix, especially in the setting of delayed or interval appendectomy. In view of the current paediatric vaccination campaign, we recommend monitoring the safety profile and potential gastrointestinal AEs associated with mRNA COVID-19 vaccines to swiftly manage subjects with gastrointestinal symptoms and prevent potential complications.

Case Reports: Int J Infect Dis. 2022 Nov:124:187-189.doi: 10.1016/j.ijid.2022.09.019. Epub 2022 Sep 16.

Acute asthma exacerbation due to the SARS-CoV-2 vaccine (Pfizer-BioNTech BNT162b2 messenger RNA COVID-19 vaccine [Comirnaty])

Masaru Ando, Yoshio Satonaga, Ryuichiro Takaki, Michitoshi Yabe, Takamasa Kan, Erika Omote, Toru Yamasaki, Kosaku Komiya, Kazufumi Hiramatsu

PMID: 36122668 PMCID: PMC9477784 DOI: 10.1016/j.ijid.2022.09.019

Abstract

The messenger RNA vaccine against SARS-CoV-2 is effective at preventing COVID-19-associated hospitalization, and the Centers for Disease Control and Prevention has recommended vaccination for all eligible individuals. We demonstrate a case involving a patient who developed a life-threatening acute asthma exacerbation after receiving their third dose of the BNT16b2 vaccine. Because eosinophilia was observed after the second inoculation, it was considered likely that the patient had been sensitized to the BNT16b2 vaccine. Theoretically, the SARS-CoV-2 vaccine could trigger the exacerbation of asthma. It should be recognized that repeated SARS-CoV-2 vaccination may be a risk factor for the acute exacerbation of asthma.

Case Reports: Radiol Case Rep. 2022 Mar;17(3):878-880.doi: 10.1016/j.radcr.2021.12.002. Epub 2022 Jan 10.

Acute axillary lymphadenopathy detected shortly after COVID-19 vaccination found to be due to newly diagnosed metastatic melanoma

David M Gullotti, Evan J Lipson, Elliot K Fishman, Steven P Rowe

PMID: 35035652 PMCID: PMC8747434 DOI: 10.1016/j.radcr.2021.12.002

Abstract

As the administration of COVID-19 vaccines continues to increase, so too does awareness of the associated ipsilateral axillary lymphadenopathy. This has created a diagnostic challenge in the field of radiology, in particular among patients with cancer, as post-vaccination reactive adenopathy has been reported to be mistakenly interpreted as malignancy. As radiology departments improve their protocols for obtaining vaccine-related patient history, and radiologists become acclimated to attributing axillary lymphadenopathy to recent COVID-19 vaccination, there is a risk of the pendulum swinging too far and under-diagnosing true oncologic disease. This report describes an otherwise healthy 53-year-old man who presented with discomfort due to ipsilateral axillary lymphadenopathy shortly after receiving a COVID-19 vaccine. Fine needle aspiration performed within 2 months of receiving the vaccine revealed metastatic melanoma and subsequent 18F-FDG PET/CT demonstrated intensely avid axillary and supraclavicular adenopathy without visualization of a primary lesion. This case serves as a cautionary report to remind clinicians to remain suspicious of possible underlying malignancy with the presence of axillary adenopathy, despite a history of recent COVID-19 vaccination.

Case Reports: Indian J Ophthalmol. 2023 Feb;71(2):666-668.doi: 10.4103/ijo.IJO_1629_22

Acute bilateral central serous chorioretinopathy in a young male after the first dose of Oxford/AstraZeneca AZD1222 (Covishield) vaccine

Meenakshi Sindhu, Ravi Kant Bamotra, Sukhdev Singh

PMID: 36727385 PMCID: PMC10228969 DOI: 10.4103/ijo.IJO_1629_22

Abstract

We case of acute bilateral central serous chorioretinopathy (CSCR) after receiving the first dose of Covishield vaccine in a young, otherwise healthy male with no associated risk factors.

Case Reports: Int Med Case Rep J. 2022 Apr 14:15:201-204. doi: 10.2147/IMCRJ.S362698. eCollection 2022

Acute Bilateral Descemet Membrane Endothelial Keratoplasty Graft Rejection After the BNT162b2 mRNA COVID-19 Vaccine

Thomas Richard Johansen Forshaw, Christel Jørgensen, Maria Christiansen Kyhn, Javier Cabrerizo

PMID: 35444474 PMCID: PMC9015040 DOI: 10.2147/IMCRJ.S362698

Abstract

Purpose: We report a case of acute bilateral Descemet membrane endothelial keratoplasty (DMEK) rejection two weeks following BNT162b2 mRNA COVID-19 vaccine (Pfizer-BioNTech), reflecting on possible changes to the management of patients with DMEK scheduled for COVID-19 vaccination.

Patients and methods: A 94-year-old woman with Fuchs' endothelial dystrophy who underwent DMEK 24 months earlier (right eye) and 20 months earlier (left eye) demonstrated bilateral graft rejection two weeks after the first dose of COVID-19 vaccine. Standard treatment regimen was followed, and clinical status documented with slit-lamp examination and swept-source optical coherence tomography throughout.

Results: Preoperative best corrected visual acuity (BCVA) and corneal thickness (CT) were 0.3 and 679µm right eye and 0.2 and

668µm left eye. Postoperative BCVA and CT were 0.7 and 559µm right eye and 0.4 and 590µm left eye. Standard treatment regimen consisted of dexamethasone/tobramycin and ketorolac, four times daily. At one month, both preparations were discontinued, replaced by dexamethasone 0.1% four times daily. At three months, this was tapered to once daily. Post-rejection, BCVA and CT were 0.2 and 710µm right eye and 0.3 and 710µm left eye. Treatment was with dexamethasone/tobramycin six times daily. Poor response resulted in re-DMEK transplantation, starting in the left eye. At one-month follow-up, BCVA and CT were 0.5 and 538µm right eye and 0.63 and 504µm left eye.

Conclusion: We report the first acute bilateral DMEK graft rejection after a single dose of COVID-19 vaccine. We recommend clinicians exercise vigilance and consider dexamethasone 0.1% during the vaccination period.

Case Reports: Int Med Case Rep J. 2022 Apr 14:15:201-204. doi: 10.2147/IMCRJ.S362698. eCollection 2022

Acute bilateral optic/chiasm neuritis with longitudinal extensive transverse myelitis in longstanding stable multiple sclerosis following vector-based vaccination against the SARS-CoV-2

Letter to the Editors | Open access | Published: 15 June 2021

Volume 269, pages 49–54, (2022) Cite this article

Christoph Helmchen, Gesine M. Buttler, Robert Markewitz, Katja Hummel, Heinz Wiendl & Tobias Boppel

6645 Accesses 29 Citations 196 Altmetric 2 Mentions Explore all metrics

Dear Sirs,

Multiple sclerosis (MS) and neuromyelitis optica (NMO) are two distinctly different immunological diseases with respect to clinical and MRI signs [4, 10], clinical course, therapy, and pathoimmunology [e.g., antibodies targeting astrocytic water channel aquaporin-4 (AQP4-ab), redefining the variety of clinical NMO as NMO spectrum disorder (NMOSD)] [10, 11]. Diagnostic criteria are reliable so that both entities should not overlap and must not be confused, e.g., AQP4-ab were only found in 0.33% of 1183 patients with longstanding MS [3].

We report about a young patient with a longstanding history of

relapsing-remittent multiple sclerosis (RRMS) who developed a severe syndrome of optic/chiasm neuritis and paraplegia due to longitudinal extensive transverse myelitis (LETM) [6] resembling NMOSD 2 weeks after her vaccination with the first dose of a vector-based COVID-19 vaccine.

The 40-year-old female patient has a longstanding (21 years) history of RRMS. Diagnosis of RRMS was established in 2000 based on relapsing neurological episodes of different symptoms with variable lesion location (diplopia, paresthesia, paresis of right hand, but no signs of optic neuritis), typical cervical and brain MRI lesions suggestive for RRMS, and intrathecal oligoclonal bands. Other causes were excluded.

In the first few years, she was treated with interferon and glatiramer acetate and steroid infusions. As she had developed cervical myelitis (at the level C4/5) and continued to suffer from several annual relapses (3–4 x/year), she was put on Natalizumab (NAT) in 2009. Ever since she has had only a few and mild episodes of sensory symptoms but remained functionally independent in daily life. She was repetitively tested negative for antibodies against NAT and JC virus.

Based on the stable disease without severe relapses, she received a vector-based vaccination against SARS-CoV-2 in March 2021 (Astra Zeneca, COVID19 Vaccine®; Vaxzevria®), 8 days after the last NAT infusion, and had no immediate adverse events. Two weeks after the vaccination, she noticed blurring of vision which rapidly developed to binocular blindness within 48 h. On day 2 of her blindness, she noticed back pain, mild weakness and numbness in her legs which escalated to the inability to walk within the next 24 h. On day 3, she was functionally blind and the paraparesis deteriorated to paraplegia, with absent tendon reflexes in the legs, incontinence, and a sensory deficit for all qualities below Th5. CSF showed severe pleocytosis (524 leucocytes/µl, 98% neutrophil granulocytes), increased lactate (6.6 mmol/l) and strongly elevated protein (2.2 g/l). Cranial MRI revealed numerous old white matter lesions compatible with MS (in the corpus

callosum and periventricular white matter; Fig. 1A, B) and increased signal intensity in the chiasm and part of the adjacent optic nerves and tracts (Fig. 1C, D), MR-morphologically in line with NMOSD. Only mild contrast enhancement of the optic chiasma was observed. Note that there had not been optic nerve/chiasm involvement in previous cranial MRI. Visual-evoked cortical potentials could not be elicited bilaterally. Spinal MRI (1.5T) revealed increased longitudinal centrally located signal intensities throughout the thoracic myelon indicating a myelitis with maximal extent at TH7-10 (Fig. 2A) and in the medullary conus. Mildly elevated signal intensities were also seen at C7-Th1. There were additional residual post-myelitic lesions in the cervical spine (level C4/C5). Two days after having had received methylprednisolone (2 g/day), there was no contrast enhancement visible. Initially, there was a slight enlargement of the central canal of the thoracic myelon above the maximal swelling at Th7-10 (Fig. 2A), which subsided in a follow-up MRI 1 week later (Fig. 2B, C). A broad autoantibody panel was negative including those targeting myelin oligodendrocyte glycoprotein [MOG, assessed via life-cell-assay [2] and confirmed via indirect immuno-fluorescence testing with MOG-transfected HEK-293 cells in another reference lab (EUROIMMUN, Lübeck, Germany)], glial fibrillary acid protein (GFAP), flotillin and AQP4 (in serum and CSF). She was tested negative for acute responses to several virus antigens (herpes simplex HSV1/2, varicella zoster virus, Epstein–Barr, German measles, mumps, and rubella) and bacteria (borrelia burgdorferi, mycoplasmas, and syphilis). Serological testing for antinuclear and anti-phospholipids antibodies were negative. Repetitive PCR tests for SARS-CoV-2 were negative. We refrained from SARS-CoV-2 antibody testing after prolonged plasmapheresis but there were no antibodies during sequential testing in 2020 until 2 weeks before symptom onset. The MRZ reaction was negative at the last lumbar punction.

We report about a young patient with a longstanding history of relapsing-remittent multiple sclerosis (RRMS) who developed a severe

syndrome of optic/chiasm neuritis and paraplegia due to longitudinal extensive transverse myelitis (LETM) [6] resembling NMOSD 2 weeks after her vaccination with the first dose of a vector-based COVID-19 vaccine.

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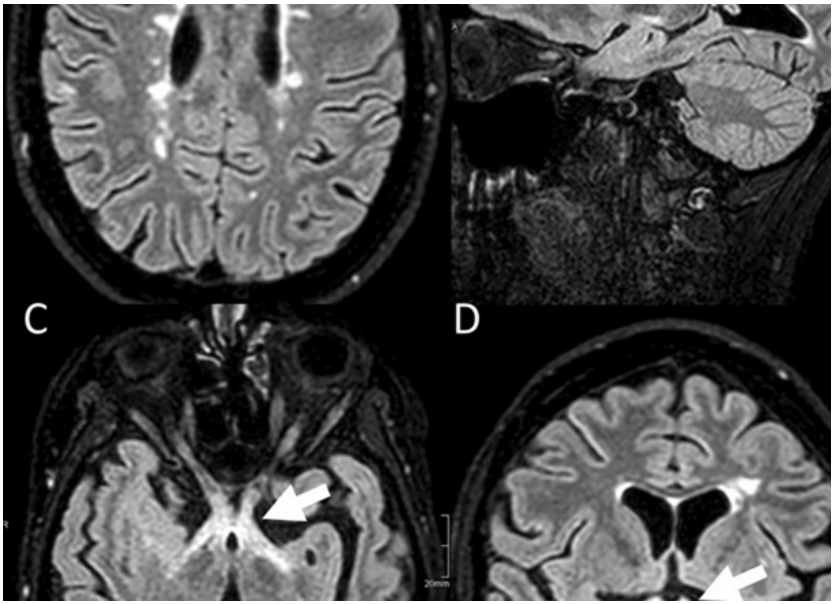
weeks after the first dose of COVID-19 vaccine. Standard treatment regimen was followed, and clinical status documented with slit-

lamp examination and swept-source optical coherence tomography throughout.

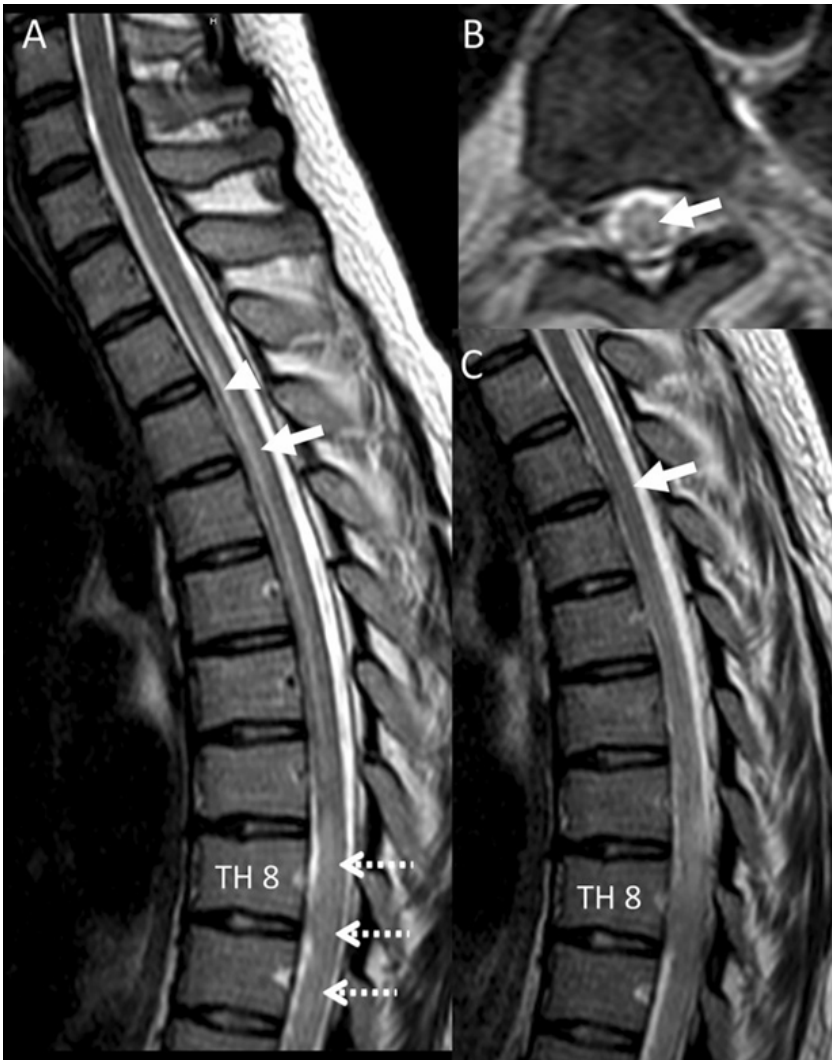
Results: Preoperative best corrected visual acuity (BCVA) and corneal thickness (CT) were 0.3 and 679μm right eye and 0.2 and 668μm left eye. Postoperative BCVA and CT were 0.7 and 559μm right eye and 0.4 and 590μm left eye. Standard treatment regimen

Fig. 1



Cranial MRI (1.5T, FLAIR images) shows an acute inflammatory chiasm lesion (suggestive for NMOSD) in this patient with typical MS lesions. There were numerous chronic periventricular Dawson finger-shaped and ovoid demyelination lesions on axial (A) and sagittal (B) fluid-attenuated inversion recovery (FLAIR) images compatible with MS and an increased signal intensity in the chiasm (white arrow) and part of the adjacent optic nerves and optic tract on axial (C) and coronal (D, white arrow) images

Fig. 2



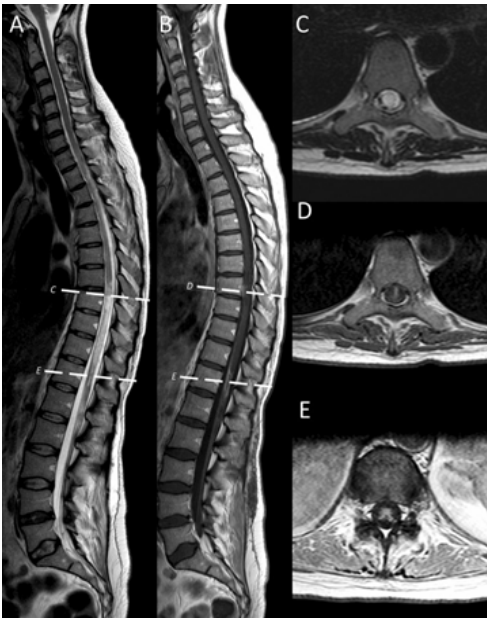
Spinal MRI shows longitudinal thoracic myelitis. Spinal MRI (1.5T, T2w) revealed longitudinal centrally located T2w signal intensities throughout the thoracic myelon (A, lucencies marked by white arrow on sagittal images) indicating an extensive thoracic myelitis with maximal extent at TH7-10 on axial (B, 1 week later) and sagittal (C) T2w images. In the acute stage (A), the central canal (white arrowhead) was slightly

enlarged in the thoracic myelon (A) above the maximal swelling at Th7–10 (white dashed arrows) which slightly reversed on follow-up MRI (1 week later; B, C). However, severe longitudinal myelitis persisted (C); note the centrally located inflammation of the thoracic myelon on the axial slice (B)

Full size image

In addition to steroids, she was treated with plasmapheresis and immunoadsorption with slight recovery of visual functions (recognition of motion but no objects) but paraplegia, loss of sensory function below T5, and incontinence persisted. Weekly follow-up examinations in CSF showed improved pleocytosis (33/µl; 48/µl with a switch to lymphocytic pleocytosis) but even further increased protein (up 4.9 g/l). NAT was continued. Two months after subacute onset, with even more improved visual acuity but unchanged paraplegia follow-up spinal MRI still revealed even stronger contrast enhancement in the thoracic myelon (at TH7-8) and in the conus, in the absence of steroids (Fig. 3). Moreover, the longitudinal T2w signal intensities in the thoracic myelon down to the conus became more intense and homogenous (Fig. 3). Cranial MRI did not show contrast enhancement and the signal intensities in the chiasm almost disappeared. CSF, however, improved and did not show lymphocytic pleocytosis any longer (4/µl) with still elevated but improved protein (1 g/l).

Fig. 3



Two months after subacute onset follow-up spinal MRI (no steroid therapy) shows severe chronic LETM with still some active inflammation at the same sites. From left to right: compared to the images at subacute onset (Fig. 2; with steroids) sagittal spinal MRI (1.5T, T2w) revealed much stronger and more extensive longitudinal T2w signal intensities (A) throughout the thoracic myelon from Th7 to the conus, and in (B) stronger enhancement in the conus and at TH8 in the T1w images with contrast. The transverse slices on the right show the corresponding slices at the level of TH8 and the conus indicated by the white hatched lines in the sagittal images. C Transverse T2w images; D, E transverse T1w images with contrast at the levels indicated in the sagittal slices

Full size image

Although potentially co-incidental, we have to consider the vector-based anti-SARS-CoV-2 vaccine as a main cause or at least a trigger of the severe clinical course in this RRMS patient for the following reasons:

The onset of symptoms 2 weeks after the vaccination is in line with a

dysimmunological response phenotypically presenting with optic/chiasm neuritis and LETM resembling NMOSD. There was no evidence for a previously unrecognized NMOSD [3]. Transverse myelitis (TM) and LETM have been described in patients suffering from COVID-19 [7] but repetitive tests for SARS-CoV-2 were negative in our patient. A recent meta-analysis of adverse events across different vaccines against COVID-19 revealed a very low risk (1/10,000) of TM in the general population [5]. TM has not been reported in MS patients treated with BNT162b2 vaccine (Pfizer-BioNTech COVID-19) injections [1] but there were 3 patients in the safety register of the approval study of the vector-based COVID-19 Vaccine® [7, 9]. One of them turned out to suffer from a previously unrecognized MS.

The nearly concurrent manifestation of chiasm and longitudinal myelitis argues against a relapse of RRMS. It may be speculated that the intended B cell response targeting the vector-based anti-SARS-CoV-2 vaccine triggered a dysimmunological process with a possibly pre-existing B cell pathoimmunology, with an ADEM-like excessive activity. In antibody-driven NMOSD, peripheral plasma cells are the source for AQP4-ab crossing the disrupted blood–brain barrier targeting astrocytes. NAT usually leads to activation and accumulation of B cells in the peripheral blood but prevents immune cells from crossing the (intact) blood–brain barrier. NAT could have induced catastrophic disease activity in this AQP4-ab negative NMOSD-like syndrome [8]. However, as this had not occurred during 10 years of regular NAT treatment, NAT is unlikely to be the cause for the acute LETM.

Case Reports: Orbit. 2023 Oct;42(5):545-547.

doi: 10.1080/01676830.2022.2042825. Epub 2022 Mar 17.

Acute Bilateral Orbital Myositis Following Covid 19 Vaccination

George S P Murphy, Pav A Gounder, Saul Rajak

PMID: 35297720 DOI: 10.1080/01676830.2022.2042825

Abstract

The authors present a case of acute bilateral orbital myositis occurring 24 hours after the administration of the mRNA1273 vaccination for COVID 19. The patient was presented with right proptosis, with orbital imaging demonstrating bilateral enlargement of all the extraocular muscles. Serological investigation did not reveal a precipitating cause or underlying disease process. The presenting features resolved entirely following treatment with methylprednisolone and the patient remains asymptomatic.

Case Reports: Am J Case Rep . 2022 Mar 12:23:e934833.doi: 10.12659/AJCR.934833

Acute Calcium Pyrophosphate Crystal Arthritis of the Wrist Elicited by Anti-COVID-19 Vaccination After Carpal Tunnel Release

Filippo Andrea Giovanni Perozzo, Leonardo Punzi, Alfio Luca Costa, Franco Bassetto

PMID: 35277470 PMCID: PMC8924853 DOI: 10.12659/AJCR.934833

Abstract

BACKGROUND Calcium pyrophosphate dihydrate deposition disease includes a variety of clinical syndromes, including acute calcium pyrophosphate (CPP) crystal arthritis. Most patients with CPP crystal arthritis have a primary/idiopathic form presenting with severe pain, swelling, and stiffness. COVID-19 infection, which originated in China in December 2019, required extraordinary efforts to develop and test new vaccines to halt the pandemic. The Vaxzervria vaccine has shown excellent safety and efficacy in phase 3 trials with a mechanism based on the expression of the SARS-CoV-2 spike protein gene coding for the S-antigen, which stimulates the immune response. CASE REPORT We describe an acute event of crystal arthritis after a carpal tunnel syndrome release followed by administration of the second dose of anti-COVID-19 Vaccine Oxford-AstraZeneca (ChAdOx1 nCoV-19). Medical treatment resulted in full resolution of the symptoms in 2 weeks. CONCLUSIONS Although most episodes of acute arthritis happen spontaneously, certain factors may trigger the acute CPP crystal arthritis such as intercurrent illnesses or surgeries. Although the association between carpal tunnel syndrome and CPP arthritis has

been known for over 40 years, surgical release of the carpal ligament has always been associated with full resolution of symptoms. This is the first case report describing an exacerbation after carpal canal release, concomitant with the administration of the vaccine. According to our opinion, the vaccination associated with a prior surgery in the same anatomical site could have synergically triggered the arthritis flare-up, in a predisposed patient, with a mechanism still unknown.

Case Reports: Eur J Med Res. 2022 Jun 2;27(1):80.doi: 10.1186/s40001-022-00695-y.

Acute cardiac side effects after COVID-19 mRNA vaccination: a case series

Noemi F Freise, Milena Kivel, Olaf Grebe, Christian Meyer, Bahram Wafaisade, Matthias Peiper, Tobias Zeus, Jan Schmidt, Judith Neuwahl , Danny Jazmati, Tom Luedde, Edwin Bölke, Torsten Feldt, Björn Erik Ole Jensen, Johannes Bode, Verena Keitel, Jan Haussmann, Balint Tamaskovics, Wilfried Budach, Johannes C Fischer, Wolfram Trudo Knoefel, Marion Schneider, Peter Arne Gerber, Alessia Pedoto, Dieter Häussinger, Martijn van Griensven, Amir Rezazadeh, Yechan Flaig , Julian Kirchner, Gerald Antoch, Hubert Schelzig, Christiane Matuschek

PMID: 35655235 PMCID: PMC9160507 DOI: 10.1186/s40001-022-00695-y

Abstract

Background: Vaccination against SARS-CoV-2 has been the main tool to contain the pandemic. The rush development of the 3 vaccines and their expedited approval have led to inoculation of millions of patients around the world, leading to a containment of the disease. Despite continuous viral mutations and the identification of weaker variants, the severity of the infections has been mild, with many patients being either asymptomatic or recovering at home. Currently the focus has shifted from the host of organ damage related to the infection to potential side effects of the vaccine. Myocarditis has been reported as one of the potential side effects from the mRNA vaccine, affecting young healthy individuals. Up to September 30, 2021, 1.243 cases of myocarditis after vaccination with BNT162b2 Comirnaty© were registered in young adults by the Paul-Ehrlich-Institute in Germany alone. The exact pathophysiology and the

risk factors for myocarditis following vaccination remain unclear. We present a case series of eight patients with cardiac symptom shortly after SARS-CoV-2 mRNA vaccination (BNT162b6, Biontech, Comirnaty© or mRNA-1237 Moderna, Spikevax©).

Patients and methods: Eight patients between 13 and 56 years of age, vaccinated with either BNT162b2 or mRNA-1273 mRNA vaccine between January and August 2021 developed cardiac side effects shortly after either their first or second dose of the vaccine. Clinical data were retrieved from the clinical information system and analyzed. To support diagnosis of myocarditis or pericarditis, cardiac magnetic resonance imaging (MRI) was performed shortly after the onset of symptoms, with further investigations in severe cases. Symptoms were defined as dyspnea, chest pain and cardiac arrhythmia as determined by electrocardiography.

Results: Eight patients (5 males and 3 females) developed cardiac symptoms compatible with myocarditis, according to the CDC criteria, shortly after SARS-CoV-2 mRNA vaccination. Three patients (2 males, 1 female) required hospitalization due to severe chest pain and elevated troponin levels. All patients recovered fully within 7 days from the symptom onset.

Conclusions: Our data suggest that cardiac adverse events such as myocarditis or pericarditis shortly after SARS-CoV-2 mRNA vaccination are rare but possible and occur particularly in male patients.

19). Medical treatment resulted in full resolution of the symptoms in 2 weeks. CONCLUSIONS Although most episodes of acute arthritis happen spontaneously, certain factors may trigger the acute CPP crystal arthritis such as intercurrent illnesses or surgeries. Although the association between carpal tunnel syndrome and CPP arthritis has

Restricted access | Research article | First published online February 25, 2023

Acute central nervous system inflammation following COVID-19 vaccination: An observational cohort study

Sydney Leeh, Alexandra Muccilli, […], and Kristen M Krysko
X+2View all authors and affiliations

Volume 29, Issue 4-5 | https://doi.org/10.1177/13524585231154780

Abstract

Background:

Reports suggest a potential association between coronavirus disease 2019 (COVID-19) vaccines and acute central nervous system (CNS) inflammation.

Objective: The main objective of this study is to describe features of acute CNS inflammation following COVID-19 vaccination.

Methods: A retrospective observational cohort study was performed at the BARLO MS Centre in Toronto, Canada. Clinicians reported acute CNS inflammatory events within 60 days after a COVID-19 vaccine from March 2021 to August 2022. Clinical characteristics were evaluated.

Results: Thirty-eight patients (median age 39 (range: 20–82) years; 60.5% female) presented within 0–55 (median 15) days of a receiving a COVID-19 vaccine and were diagnosed with relapsing remitting multiple sclerosis (MS) (n = 16), post-vaccine transverse myelitis (n = 7), clinically isolated syndrome (n = 5), MS relapse (n = 4), tumefactive demyelination (n = 2), myelin oligodendrocyte glycoprotein antibody disease (n = 1), neuromyelitis optica spectrum disorder (n = 1), chronic lymphocytic inflammation with pontine perivascular enhancement

responsive to steroids (n = 1) and primary autoimmune cerebellar ataxia (n = 1). Twenty-two received acute treatment and 21 started disease-modifying therapy. Sixteen received subsequent COVID-19 vaccination, of which 87.5% had no new or worsening neurological symptoms.

Conclusion:

To our knowledge, this is the largest study describing acute CNS inflammation after COVID-19 vaccination. We could not determine whether the number of inflammatory events was higher than expected.

Case Reports: Clin Neurol Neurosurg. 2022 Jul:218:107304.doi: 10.1016/j.clineuro.2022.10730. Epub 2022 May 19.

Acute cervical dystonia following the BNT162b2 mRNA COVID-19 vaccine

Hussein A Algahtani, Bader H Shirah, Emad Alwafi

PMID: 35605509 PMCID: PMC9119169 DOI: 10.1016/j.clineuro.2022.107304

Abstract

The coronavirus disease of 2019 (COVID-19) pandemic is caused by a novel coronavirus SARS-Cov-2. Four major vaccine types are being used to fight against this deadly pandemic and save precious human lives. All types of vaccines have been associated with a risk of neurological complications ranging from mild to severe. Cervical dystonia occurring after a COVID-19 vaccine was not previously reported in the literature. In this article, we describe a case of acute cervical dystonia occurring after the first dose of the BNT162b2 COVID-19 vaccine. We attribute the occurrence of cervical dystonia to the vaccine due to the temporal relationship. This report adds to the literature a possible rare side effect of a COVID-19 vaccine and contributes to the limited literature on potential neurological side effects of mRNA-based vaccines. The likely mechanism is autoimmune. Further research is needed to probe and study the exact mechanism.

Case Reports: Ocul Immunol Inflamm. 2021 Aug 18;29(6):1200-1206.
doi: 10.1080/09273948.2021.1961815. Epub 2021 Aug 17.

Acute Thyroiditis and Bilateral Optic Neuritis following SARS-CoV-2 Vaccination with CoronaVac: A Case Reporte

Henrique M Leber, Leticia Sant'Ana , Nina R Konichi da Silva, Mariana C Raio, Thiago Jose Muniz Machado Mazzeo, Camila Matsuura Endo, Heloisa Nascimento, Carlos E de Souza

PMID: 34402726 DOI: 10.1080/09273948.2021.1961815

Abstract

Purpose: To describe a case of acute thyroiditis and bilateral optic neuritis associated with SARS-CoV-2 vaccination.

Methods: A single case report from a tertiary referral center.

Results: The patient described in the following case report developed acute thyroiditis and bilateral optic neuritis following SARS-CoV-2 vaccination. The patient underwent pulse therapy followed by oral tapering corticosteroid therapy with an improvement of the bilateral disc swelling and the visual field, and recovery of thyroid-stimulating hormone to the normal limits.

Conclusion: Although the association between immunization and the onset of demyelinating manifestations of the central nervous system is well documented, this is the first reported case of bilateral optic neuritis and acute thyroiditis and subsequent to administration of vaccination against SARS-CoV-2.

Case Reports: Ocul Immunol Inflamm. 2021 Aug 18;29(6):1200-1206.
doi: 10.1080/09273948.2021.1961815. Epub 2021 Aug 17.

Acute Thyroiditis and Bilateral Optic Neuritis following SARS-CoV-2 Vaccination with CoronaVac: A Case Reporte

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Abstract

Purpose: To describe a case of acute thyroiditis and bilateral optic neuritis associated with SARS-CoV-2 vaccination.

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Conclusion: Although the association between immunization and the onset of demyelinating manifestations of the central nervous system is well documented, this is the first reported case of bilateral optic neuritis and acute thyroiditis and subsequent to administration of vaccination against SARS-CoV-2.

Case Reports: Eur Heart J Case Rep. 2022 Jul 11;6(7):ytac269.

doi: 10.1093/ehjcr/ytac269. eCollection 2022 Jul.

A case report of giant cell myocarditis after a syncope-related motor vehicle accident: an atypical presentation for a life-threatening condition

Lily A Pham, Joseph Chung, Callan Gavaghan

PMID: 35865223 PMCID: PMC9295690 DOI: 10.1093/ehjcr/ytac269

Abstract

Background: Giant cell myocarditis (GCM) is a rare and rapidly progressive disease associated with significant morbidity and mortality. Whilst patients more frequently present with acute heart failure, diagnosis is difficult due to heterogeneity in clinical presentations.

Case summary: This case report presents a previously healthy 59-year-old Vietnamese woman who initially presented with syncope and a motor vehicle accident who developed rapid decline in left ventricular function. Her initial echocardiogram was suggestive of an infiltrative cardiomyopathy. GCM was confirmed on biopsy, and she received combined immunosuppression. Twenty-seven days following her initial presentation to hospital, she was unable to recover from severe multi-organ dysfunction, and the patient was palliated and passed away.

Discussion: This case highlights the varied manner in which GCM may present. Even in the absence of cardiogenic shock at presentation, giant cell myocarditis should be considered in the evaluation of new cardiomyopathy of uncertainty aetiology. Diagnosis of this condition has distinct clinical implications on management and prognosis.

Section-II

Links of 3100 + research papers proving the deadly damage done by Covid-19 Vaccine.

Title: Bilateral Sequential Acute Macular Neuroretinopathy in an Asian Indian Female with β Thalassemia Trait following (Corona Virus Disease) COVID-19 Vaccination and Probable Recent COVID Infection- Multimodal Imaging Study.'
URL: *https://pubmed.ncbi.nlm.nih.gov/35050826/*
Author: Sanjay et al (1)

Title: COVID arm' detected by MR neurography.
URL: *https://pubmed.ncbi.nlm.nih.gov/34746453/*
Author: Komiya et al

Title: Covid arm': Abnormal side effect after Moderna COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34750923/*
Author: Picone et al (1)

Title: COVID Arm': Very delayed large injection site reactions to mRNA COVID-19 vaccines.
URL: *https://pubmed.ncbi.nlm.nih.gov/33864927/*
Author: Ramos & Kelso

Title: COVID Toes' After mRNA COVID-19 Vaccines.
URL: *https://pubmed.ncbi.nlm.nih.gov/34162525/*
Author: Kelso et al

Title: COVID-19/SARS-CoV-2 virus spike protein-related delayed inflammatory reaction to hyaluronic acid dermal fillers: a challenging clinical conundrum in diagnosis and treatment'.
URL: *https://pubmed.ncbi.nlm.nih.gov/33559733/*
Author: Munavalli et al (1)

Title: Marginal keratitis following COVID 19 vaccination'.
URL: *https://pubmed.ncbi.nlm.nih.gov/35756698/*
Author: Farrell et al

Title: Reversible cytotoxic lesion of the corpus callosum following SARS-CoV-2 mRNA vaccine administration: a finding to be aware of'.
URL: *https://pubmed.ncbi.nlm.nih.gov/35488375/*
Author: Procaccini et al

Title: Smoldering' Rejection of Keratolimbal Allograft.
URL: *https://pubmed.ncbi.nlm.nih.gov/35383621/*
Author: Gouvea et al

Title: Vitreous Hemorrhage and Long-Lasting Priapism After COVID-19 m-RNA Based Vaccine: A Case Report'.
URL: *https://pubmed.ncbi.nlm.nih.gov/35505605/*
Author: Casarini et al

Title: (AutoI) A flare of Still's disease following COVID-19 vaccination in a 34-year-old patient.
URL: *https://pubmed.ncbi.nlm.nih.gov/34797392/*
Author: Jeon et al

Title: (Female genital ulcers) Post COVID-19 Vaccination Vulvar Aphthous Ulcers: An Unpopular Case Series.
URL: *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8929996/*
Author: Lawson et al

Title: 10 Cases of Immune Thrombocytopenia (ITP): Relapse Versus de novo After COVID-19 Vaccination.
URL: **URL:** *https://pubmed.ncbi.nlm.nih.gov/35108113/*
Author: Al-Ahmad et al (1)

Title: 10 cases Reactivation of Herpes Zoster Virus After COVID-19 Vaccination: Is There Any Association?
URL: **URL:** *https://pubmed.ncbi.nlm.nih.gov/35746994/*
Author: Agrawal et al

Title: 11 cases of SARS-CoV-2 vaccine-associated subacute thyroiditis.
URL: *https://pubmed.ncbi.nlm.nih.gov/35182366/*
Author: Yorulmaz & Tekin

Title: 11 patients with Delayed skin reaction after mRNA-1273 vaccine against SARS-CoV-2: a rare clinical reaction.
URL: *https://pubmed.ncbi.nlm.nih.gov/34433495/*
Author: Hoff et al

Title: 111In-Pentetreotide Uptake Due to COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34619700/*
Author: Koyasu & Nakamoto

Title: 12 cases of GBS Acute-onset polyradiculoneuropathy after SARS-CoV2 vaccine in the West and North Midlands, United Kingdom.
URL: *https://pubmed.ncbi.nlm.nih.gov/34786740/*
Author: Loo et al

Title: 12 yoMEosinophilic cellulitis in response to BNT162b2 COVID-19 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35522122/*
Author: Ikediobi et al

Title: 12% of chronic ITP patients have exacerbation of ITP in 2-5 days following vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34075578/*
Author: Kuter

Title: 12yoM A Case of Multisystem Inflammatory Syndrome in a 12-Year-old Male After COVID-19 mRNA Vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34978781/*
Author: Yalçinkaya et al

Title: 12yoM Multisystem Inflammatory-like Syndrome in a Child Following COVID-19 mRNA Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35062704/*
Author: Poussaint et al

Title: 13 cases delayed local reactions following mRNA vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34086881/*
Author: Jacobson et al

Title: 13 Cases of Cervical lymphadenopathy following coronavirus disease 2019 vaccine: clinical characteristics and implications for head and neck cancer services.
URL: *https://pubmed.ncbi.nlm.nih.gov/34526175/*
Author: Abou-Foul et al

Title: 13yoM Myocarditis Following the Second Dose of COVID-19 Vaccination in a Japanese Adolescent.
URL: *https://pubmed.ncbi.nlm.nih.gov/35475062/*
Author: Yamamoto S et al

Title: 15yo and 18yoM Sibling cases of gross hematuria and newly diagnosed IgA nephropathy following SARS-CoV-2 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35729514/*
Author: Uchiyama et al

Title: 15yo Myocarditis Following COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34342500/*
Author: Isaak et al

Title: 15YoF and 17YoF Multisystem Inflammatory Syndrome in Children after SARS-CoV-2 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35275051/*
Author: Jain et al

Title: 163 cases of COVID-19 Vaccination Induced Lymphadenopathy in a Specialized Breast Imaging Clinic in Israel:.
URL: *https://pubmed.ncbi.nlm.nih.gov/34257025/*
Author: Faermann et al

Title: 16yoM Multi inflammatory syndrome in a 16-year-old male following first dose of m-RNA COVID-19 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35187466/*
Author: McGann et al

Title: 17yoM Newly diagnosed IgA nephropathy with gross haematuria following COVID-19 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34865167/*
Author: Horino et al

Title: 18 cases of idiopathic sensorineural hearing loss, tinnitus, and/or vertigo following Moderna/Pfizer:.
URL: *https://pubmed.ncbi.nlm.nih.gov/34267103/*
Author: Wichova et al

Title: 18 F-FDG-Avid Axillary Lymph Nodes After COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/33741644/*
Author: Johnson BJ et al

Title: 18 F-Fluciclovine-Avid Axillary Lymph Nodes After COVID-19 Vaccination on PET/CT for Suspected Recurrence of Prostate Cancer.
URL: *https://pubmed.ncbi.nlm.nih.gov/34872921/*
Author: Peacock et al

Title: 18 F-fluorodeoxyglucose PET/CT findings in a systemic inflammatory response syndrome after COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/33705696/*
Author: Steinberg et al

Title: 18F-FDG-Avid Lymph Nodes After COVID-19 Vaccination on 18F-FDG PET/CT.
URL: *https://pubmed.ncbi.nlm.nih.gov/33782318/*
Author: Ulaner & Giuliano

Title: 18F-Fluciclovine-Avid Reactive Axillary Lymph Nodes After COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34183501/*
Author: Wong FC et al

Title: 18yoM Acute Myocarditis Following the Administration of the Second BNT162b2 COVID-19 Vaccine Dose.
URL: *https://pubmed.ncbi.nlm.nih.gov/34804729/*
Author: Miqdad et al

Title: 19 Case Reports: Post SARS-CoV-2 vaccination Guillain-Barre syndrome in 19 patients - PubMed.
URL: *https://pubmed.ncbi.nlm.nih.gov/34644738/*
Author: Finsterer et al

Title: 19yoM Pityriasis Rosea as a Possible Complication of Vaccination Against COVID-19.
URL: *https://pubmed.ncbi.nlm.nih.gov/34374333/*
Author: Dormann et al

Title: 2 cases 19yoM 50yoF Histologic correlates of gross hematuria following Moderna COVID-19 vaccine in patients with IgA nephropathy.
URL: *https://pubmed.ncbi.nlm.nih.gov/34146600/*
Author: Kudose et al

Title: 2 cases Delayed Skin Rash After Receiving SARS-CoV-2 mRNA Moderna Vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34276178/*
Author: Papamanoli et al

Title: 2 cases of corneal graft Rejection After the BNT162b2 messenger RNA Vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34029238/*
Author: Wasser et al

Title: 2 cases of IgA nephropathy patients developing exacerbations following moderna:.
URL: *https://pubmed.ncbi.nlm.nih.gov/33771584/*
Author: Negrea & Rovin

Title: 2 cases of polymyalgia rheumatica and giant cell arteritis: COVID-19 vaccine shot as a trigger? Comment on: 'Can SARS-CoV-2 trigger relapse of polymyalgia rheumatica?' by Manzo et al. Joint Bone Spine 2021;88:105150.
URL: *https://pubmed.ncbi.nlm.nih.gov/34600148/*
Author: Cadiou et al

Title: 20 Post-COVID-19 vaccine-related shingles cases seen at the Las Vegas Dermatology clinic and sent to us via social media.
URL: *https://pubmed.ncbi.nlm.nih.gov/33991162/*
Author: Lee C et al

Title: 20yoF Immune thrombocytopenia associated with Pfizer-BioNTech's BNT162b2 mRNA COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34381692/*
Author: Akiyama et al

Title: 21 Cases Immune thrombocytopenia following immunisation with Vaxzevria ChadOx1-S (AstraZeneca) vaccine, Victoria, Australia.
URL: *https://pubmed.ncbi.nlm.nih.gov/34756770/*
Author: Gordon et al

Title: 21yoM Guillain-Barré syndrome associated with BNT162b2 COVID vaccination: a first case report from South Korea.
URL: *https://pubmed.ncbi.nlm.nih.gov/34981285/*
Author: Kim N et al

Title: 22yoM IgA Vasculitis Following COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35253880/*
Author: Nishimura N et al

Title: 22yoM Perimyocarditis following first dose of the mRNA-1273 SARS-CoV-2 (Moderna) vaccine in a healthy young male: a case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34348657/*
Author: Hasnie et al

Title: 23yo Case report of Guillain-Barré Syndrome after COVID BNT162b2 mRNA vaccine].
URL: *https://pubmed.ncbi.nlm.nih.gov/35528113/*
Author: Sosa-Hernández & Sánchez-Cardoza

Title: 23yoF Pityriasis rosea-like rash after messenger RNA COVID-19 vaccination: A case report and review of the literature.
URL: *https://pubmed.ncbi.nlm.nih.gov/35156062/*
Author: Buckley et al

Title: 24 cases Lymphadenopathy after the Anti-COVID-19 Vaccine: Multiparametric Ultrasound Findings.
URL: *https://pubmed.ncbi.nlm.nih.gov/34356507/*
Author: Cocco et al (2)

Title: 24yoF Miller Fisher syndrome following Pfizer COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34817727/*
Author: Abičić et al

Title: 24yoF Severe immune thrombocytopenic purpura after SARS-CoV-2 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34754937/*
Author: Cooper & Switzer

Title: 24yoM Acute myocarditis after SARS-CoV-2 vaccination in a 24-year-old man.
URL: *https://pubmed.ncbi.nlm.nih.gov/34400043/*
Author: Cimaglia et al

Title: 24YoM COVID-19 mRNA Vaccine and Myocarditis.
URL: *https://pubmed.ncbi.nlm.nih.gov/34268277/*
Author: Singh B et al

Title: 25yoM First diagnosis of thrombotic thrombocytopenic purpura after SARS-CoV-2 vaccine - case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34895163/*
Author: Osmanodja et al

Title: 26yoF ITP Immune thrombocytopenic purpura and acute liver injury after COVID-19 vaccine | BMJ Case Reports.
URL: *https://pubmed.ncbi.nlm.nih.gov/34330722/*
Author: Hines et al

Title: 27Yo New-Onset Systemic Lupus Erythematosus after mRNA SARS-CoV-2 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35186342/*
Author: Báez-Negrón & Vilá

Title: 28YoF IgA Nephropathy with Gross Hematuria Following COVID-19 mRNA Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35110484/*
Author: Nihei et al

Title: 28yoF Renal side effects of COVID-19 vaccines in patients with immunoglobulin A nephropathy.
URL: *https://pubmed.ncbi.nlm.nih.gov/35108771/*
Author: Park & Lee

Title: 28yoM Immune thrombocytopenia relapse post covid-19 vaccine in young male patient.
URL: *https://pubmed.ncbi.nlm.nih.gov/34804803/*
Author: Qasim et al

Title: 29yoF Hematuria after COVID-19 vaccination: A case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/35102819/*
Author: Arias PD et al

Title: 29YoF Isolated Tachycardia Presenting After Pfizer-BioNTech COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34466331/*
Author: Tate et al

Title: 29yoM Pityriasis Rosea Shortly After mRNA-1273 COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34740803/*
Author: Shin SH et al

Title: 3 Cases Acute Vulvar Aphthous Ulceration After COVID-19 Vaccination: 3 Cases.
URL: *https://pubmed.ncbi.nlm.nih.gov/35220345/*
Author: Wijaya et al

Title: 3 cases Autoimmune hepatitis after COVID-19 vaccination: Need for population-based epidemiological study.
URL: *https://pubmed.ncbi.nlm.nih.gov/34904265/*
Author: Suzuki Y et al

Title: 3 cases Exacerbation of hyperglycemia in patients with type 2 diabetes after vaccination for COVID19: Report of three cases.
URL: *https://pubmed.ncbi.nlm.nih.gov/34186339/*
Author: Mishra A et al

Title: 3 cases Immune Thrombocytopenic Purpura Cases Following COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34276916/*
Author: Condorelli et al

Title: 3 cases Multisystem Inflammatory Syndrome after SARS-CoV-2 Infection and COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34034858/*
Author: Salzman et al

Title: 3 cases of acute hemorrhagic encephalomyelitis after AstraZeneca.
Author: https://pubmed.ncbi.nlm.nih.gov/35185757

Title: .

Title: 3 cases of adolescents with Pfizer induced TTP:.
URL: *https://pubmed.ncbi.nlm.nih.gov/35373880/*
Author: Vorster et al

Title: 3 cases of immune thrombocytopenia following AstraZeneca in Thailand.
URL: *https://pubmed.ncbi.nlm.nih.gov/34483267/*
Author: Uaprasert et al

Title: 3 new cases, 13 flares Case Report: Multiple Sclerosis Relapses After Vaccination Against SARS-CoV2: A Series of Clinical Cases.
URL: *https://pubmed.ncbi.nlm.nih.gov/34744992/*
Author: Nistri et al

Title: 30yoF A Case of Immune Thrombocytopenia After BNT162b2 mRNA COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34285180/*
Author: King & Towner

Title: 30yoM Relapse of minimal change disease following the AstraZeneca COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34119512/*
Author: Morlidge et al

Title: 31YoM Can new onset psychosis occur after mRNA based COVID-19 vaccine administration? A case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34388513/*
Author: Reinfeld et al

Title: 32yoF Bell's Palsy Secondary to COVID-19 Vaccine Pfizer: Case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/35759681/*
Author: González-Enríquez

Title: 32yoM Post-COVID-19 vaccine acute hyperactive encephalopathy with dramatic response to methylprednisolone: A case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34512961/*
Author: Al-Mashdali et al

Title: 34yoF Aseptic meningitis after SARS-CoV-2 Pfizer/BioNTech vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34882515/*
Author: Dupon et al

Title: 34yoM Bilateral Multifocal Choroiditis following COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34344280/*
Author: Goyal et al

Title: 35yoF Autoimmune Encephalitis as an Adverse Event of COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/35021289/*
Author: Shin HR et al

Title: 36yo Bell's Palsy After 24 Hours of mRNA-1273 SARS-CoV-2 Vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34336436/*
Author: Iftikhar et al

Title: 37yo M Acute Eosinophilic Pneumonia Following mRNA COVID-19 Vaccination: A Case Report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34803207/*
Author: Piqueras et al

Title: 37yoF Development of ITP following BNT162b2 mRNA COVID-19 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34732627/*
Author: Shibata et al

Title: 38yo Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease and Transverse Myelitis Probably Associated With SARS-CoV-2 mRNA Vaccines: Two Case Reports.
URL: *https://pubmed.ncbi.nlm.nih.gov/35755241/*
Author: Morena & Gyang

Title: 38yoF The First Guillain-Barr? Syndrome After SARS-CoV-2 Vaccination in Taiwan.
URL: *https://pubmed.ncbi.nlm.nih.gov/34988954/*
Author: Su SC et al

Title: 39yoF Acquired Hemophilia A Developed Post COVID-19 Vaccine: An Extremely Rare Complication.
URL: *https://pubmed.ncbi.nlm.nih.gov/35211227/*
Author: Soliman et al

Title: 4 cases of Central serous chorioretinopathy following the BNT162b2 mRNA vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/35577701/*
Author: Hanhart et al

Title: 4 cases of Guillain-Barré Syndrome Variant Occurring after SARS-CoV-2 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34114269/*
Author: Allen et al

Title: 4 Cases of Myocarditis Following Third (Booster) Dose of COVID-19 Vaccination: Magnetic Resonance Imaging Study.
URL: *https://pubmed.ncbi.nlm.nih.gov/35310989/*
Author: Shiyovich et al

Title: 4 cases of Oral erythema multiforme after Pfizer-BioNTech COVID-19 vaccination: a report of four cases.
URL: *https://pubmed.ncbi.nlm.nih.gov/35331228/*
Author: Pertruzzi et al

Title: 40yoM Pityriasis rosea after mRNA COVID-19 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34110010/*
Author: Abdullah et al

Title: 40yoM Pityriasis Rosea-like eruptions following COVID-19 mRNA-1273 vaccination: A case report and literature review.
URL: *https://pubmed.ncbi.nlm.nih.gov/35012825/*
Author: Wang CS et al

Title: 41yoF Another case of autoimmune hepatitis after SARS-CoV-2 vaccination - still casualty?
URL: *https://pubmed.ncbi.nlm.nih.gov/34129886/*
Author: Londoño et al

Title: 41yoM Secondary Immune Thrombocytopenia (ITP) Associated with ChAdOx1 Covid-19 Vaccination - A Case Report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34377889/*
Author: Koch et al

Title: 42 cases of Uveitis and Other Ocular Complications Following COVID-19 Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34945256/*
Author: Bolletta et al

Title: 42yoF Subacute thyroiditis post-Pfizer-BioNTech mRNA vaccination for COVID-19.
URL: *https://pubmed.ncbi.nlm.nih.gov/34907904/*
Author: Khan & Brassil

Title: 42YoM Guillan-Barré Syndrome after First Vaccination Dose against COVID-19: Case Report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34779385/*
Author: Čenščák et al

Title: 43yoM of polyneuropathy after COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/35753790/*
Author: Iseki et al

Title: 43yoM Parsonage-Turner Syndrome After COVID-19 Vaccination: A Case Report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34936579/*
Author: Flikkema & Brossy

Title: 44YoM Development of severe pemphigus vulgaris following ChAdOx1 nCoV-19 vaccination and review of literature.
URL: *https://pubmed.ncbi.nlm.nih.gov/35348281/*
Author: Singh et al

Title: 45yoF Cold agglutinin disease after COVID-19 vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34176130/*
Author: Al Aoun & Motabi

Title: 45yoF Possible HSP reactivation post-COVID-19 vaccination and booster.
URL: *https://pubmed.ncbi.nlm.nih.gov/34745629/*
Author: Kondo & Yamanaka

Title: 45yoM Psoriasis flare-up associated with second dose of Pfizer-BioNTech BNT16B2b2 COVID-19 mRNA vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/34131967/*
Author: Krajewski et al

Title: 49Yo A Rare Variant of Guillain-Barre Syndrome Following Ad26.COV2.S Vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34703690/*
Author: Morehouse et al

Title: 5 cases of adrenal SARS-CoV-2 vaccination: A putative precipitant of adrenal crises.
URL: *https://pubmed.ncbi.nlm.nih.gov/34358373/*
Author: Maguire et al

Title: 5 Cases of Herpes Zoster Following a Nucleoside-Modified Messenger RNA COVID-19 Vaccine.
URL: *https://pubmed.ncbi.nlm.nih.gov/35180059/*
Author: Dezoteux et al

Title: 5 casesMyocarditis following COVID-19 mRNA vaccination 16yo and up.
URL: *https://pubmed.ncbi.nlm.nih.gov/34092429/*
Author: Abu Mouch et al

Title: 5 New diagnosis of multiple sclerosis in the setting of mRNA COVID-19 vaccine exposure.
URL: *https://pubmed.ncbi.nlm.nih.gov/34922126/*
Author: Toljan et al

Title: 50yoM Bell's palsy following COVID-19 vaccination: a case report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34330676/*
Author: de Terreros Caro et al

Title: 50YoM Post COVID-19 vaccine adenopathy: first Brazilian report.
URL: *https://pubmed.ncbi.nlm.nih.gov/34406229/*
Author: Viana et al

Title: 53yoF Pityriasis rosea-like cutaneous eruption as a possible dermatological manifestation after Oxford-AstraZeneca vaccine: Case report and brief literature review.
URL: *https://pubmed.ncbi.nlm.nih.gov/34533265/*
Author: Pedrazini & da Silva

Title: 54yoM Vestibular neuritis after COVID-19 vaccination.
URL: *https://pubmed.ncbi.nlm.nih.gov/34898387/*
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Section-III

Every Death = Corona Death (almost) the guideline issued by ICMR on 10th May 2020, on "Writing the death Certificate"

Joint Statement on Safety and Efficacy of COVID-19 Vaccine (Released on 6th January 2020 by Dr Biswaroop Roy Chowdhury)

Observational Study on Dr BRC's protocol to cure COVID-19 (Study done by N.I.N, Ministry of Ayush, Govt. of India)

Guidance for appropriate recording of COVID-19 related deaths in India

Impacting NCD Public Health Actions and Policies
Collaborate Innovate Inspire

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1. Introduction

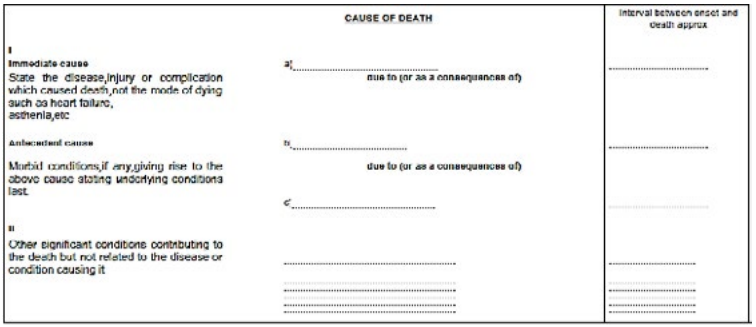
1.1 What is Cause of Death?

The cause of death (COD) is defined as "all those diseases, morbid conditions or abnormalities, injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced any such injuries."(1)

1.2 How to record Cause of Death?

Medical Certificate of Cause of Death (MCCD) is the certificate issued by the attending medical practitioner who had treated the person during admission in a medical institution or in the last illness (prior to death) while taking treatment from a physician outside of a medical institution. Medical certification of cause of death is the process of recording and reporting death using standard Form 4 (institutional deaths) and Form 4A (non-institutional deaths) as per the rules of the Registration of Births and Death Act, 1969. The MCCD form contains Part 1 to record the immediate and antecedent causes, and Part 2 to record the significant conditions that contributed to the death but were not part of the sequence of events leading to death.

Image 1: Cause of Death section of Form 4/4A



	CAUSE OF DEATH	Interval between onset and death approx
I Immediate cause State the disease,injury or complication which caused death,not the mode of dying such as heart failure, asthenia,etc	a)..... due to (or as a consequences of)	.....
Antecedent cause Morbid conditions,if any,giving rise to the above cause stating underlying conditions last	b)..... due to (or as a consequences of)	.....
	c).....	.....
II Other significant conditions contributing to the death but not related to the disease or condition causing it	.....	.....

1.3 What is Underlying COD?

Death often results from the combined effect of two or more independent or related conditions, that is, one condition may lead to another, which in turn leads to a third condition and so on. Where there is a sequence, the disease or injury which initiated the sequence of events, called the **underlying cause of death** is recorded and reported. It is:

(a) The disease or injury which initiated the train of morbid events leading directly to death;

Or

(b) The circumstances of the accident or violence which produced the fatal injury.

All the morbid conditions or injuries consequent to the underlying cause relating to death are termed as antecedent and immediate cause.

The medical part of the certificate consists of two parts-

I. Sequence of events leading to death -

First line is the immediate cause of death – the condition / disease that directly led to death / that preceded death.

The cause of death antecedent to immediate cause should be entered in line (b), and a cause further antecedent to this should be entered in line (c).

Underlying cause of death is on the lowest line of part I – It is the disease or condition that started the sequence of events between normal health to immediate cause of death. Conditions if any, as a consequence thereof will be entered above it in ascending causal order of sequence.

How many cause of death can be entered in Part I?

Only one cause is to be entered on each line of Part I. There may be many morbid events that happened, but the sequence of events that caused death should be sorted out, and one cause should be written on each line of Part 1 so that there is a **logical sequence of events leading to death.**

What if there is only one condition?

The disease, injury or complication that immediately preceded death can be the only entry in the MCCD FORM if only one condition is present at death.

What if there is only one condition antecedent to the immediate cause?

The condition antecedent to the immediate cause should be entered in line (b). Line (c) should be kept blank.

How to record time interval from onset of disease to death?

The time interval between the presumed onset of the condition, not the diagnosis, and death should be reported. It is acceptable to approximate the intervals or use general terms, such as hours, days, weeks, or years.

II. Other significant conditions that contributed to the death

All other diseases or conditions believed to have unfavourably influenced the course of the disease leading to death, but were not related to the disease or condition directly causing death.

What should be entered in Part II - Other significant conditions?

Any disease, abnormality, injury or late effects of poisoning, believed to have adversely affected the deceased should be reported such as chronic conditions, and also information such as:

• Chronic Bronchitis /COPD/Asthma/ Tuberculosis • Cancer –Primary / Metastatic cancer / On cancer directed treatment /Old cancer - cured or treated • Cardiovascular disease- Hypertension / IHD/Coronary Heart Disease / heart failure • Stroke / Neurological conditions like epilepsy, Parkinson's disease, dementia, Alzheimer's disease • Rheumatoid arthritis / Immune related conditions	• Use of alcohol and/or other substances. • Tobacco use (smoking / smokeless) • Recent pregnancy, if believed to have contributed to the death. • Environmental factors-exposure to toxic fumes, history of working in specific industry, professional exposure to toxins, specific animals • Late effects of injury, including head injury sequelae • Any iatrogenic underlying cause • Surgical information, if applicable

1.4 Public health significance of Cause of Death data

Stating the sequence of morbid conditions in order, allows selection of the cause of death that is considered as "underlying" cause. It is the underlying cause of death that is coded with ICD -10 codes and is counted for statistical purposes.

Robust cause of death information in a population is useful for understanding disease burden estimations, and explains trends in the health of populations. It is useful for evaluation and planning of health services and programmes. Good cause of mortality statistics also aids in identifying research questions of public health significance.

2 COVID-19

2.1 COVID-19 pandemic and need for cause of death

COVID-19 is the infectious disease caused by the most recently discovered coronavirus (SARS- CoV- 2) from Wuhan, China, in December 2019. The COVID-19 disease outbreak was declared a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 by the World Health Organization, and later on 11 March 2020 as a Global Pandemic. During such situations, mortality surveillance becomes a very important public health tool to assess the impact of the viral infection.

2.2 COVID-19 as Underlying Cause of Death (UCOD)

COVID-19 is reported to cause pneumonia / acute respiratory distress syndrome (ARDS) / cardiac injury / disseminated intravascular coagulation and so on. These may lead to death and may be recorded in line 'a' or 'b'. It is likely that COVID-19 is the underlying cause of death (UCOD) that lead to ARDS or Pneumonia in most of the deaths due to COVID-19 (test positive and symptoms positive). In these cases COVID-19 must be captured in the last line / lowest line of Part 1 of MCCD form 4/4 A. Acute respiratory failure is a mode of dying and it is prudent not to record it in line a/b/c.

Patients may present with other pre-existing comorbid conditions such as chronic obstructive pulmonary disease (COPD) or asthma, chronic bronchitis, ischemic heart disease, cancer and diabetes mellitus. These conditions increase the risk of developing respiratory infections, and may lead to complications and severe disease in a COVID-19 positive individual. These conditions are not considered as UCOD as they have directly not caused death due to COVID-19. Also a patient may have many co-morbid conditions, but only those that have contributed to death should be recorded in Part 2.

2.3 ICD-10 Codes for COVID-19 provided by World Health Organization

Emergency ICD-10 Code	Usage conditions
U07.1	COVID-19,virus identified
U07.2	COVID-19, virus not identified, Clinically-epidemiologically diagnosed COVID-19 Probable COVID-19 Suspected COVID-19

2.4 Public health significance of recording cause of death in COVID-19 pandemic

COVID-19 is a new disease and is a pandemic affecting all communities and countries. It's clinical presentation ranges from mild to severe, and fatality depends on the severity of the illness, associated co-morbid conditions and age of patients. Patterns of disease and patterns of death can come from only standardised recording of clinical disease history and cause of death, and therefore epidemiological surveillance of disease and death are important. Robust data is needed from every district and state in India to measure the public health impact of COVID 19 and to plan for timely health interventions and protect communities. At the same time, other health conditions affecting populations need to be also monitored so that the health system is prepared for responding to the needs of the population.

3 Completing Medical Certification of Cause of Death (MCCD) in COVID-19

3.1 Mortality coding of COVID-19 with ICD-10 codes

The ICD-10 codes presently recommended by WHO for mortality coding are:

Test	Symptoms of COVID-19	Diagnosis	Code
+ve	None	Confirmed COVID-19	U07.1
+ve	Present	Confirmed COVID-19 documented as UCOD	U07.1
+ve	Present with comorbid conditions like heart disease, asthma, COPD, Type 2 diabetes	Confirmed COVID-19 documented as UCOD	U07.1
Test Negative	Present	Clinically –Epidemiologically diagnosed COVID -19	U07.2
Test awaited	Present	Suspected COVID-19	
Test inconclusive	Present	Probable COVID-19	

3.2 Examples of underlying cause of death in COVID-19

Some examples are provided to help physicians' record cause of death in COVID-19

Example 1 : 40 year old male diagnosed with COVID-19			
CAUSE OF DEATH			
Part I		**Interval between onset and death approx**	**For statistical use**
Immediate Cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc	a) Respiratory acidosis	2 days	

Antecedent cause Morbid conditions, if any, giving rise to the above cause stating underlying conditions last.	b) Acute respiratory distress syndrome (ARDS) c) COVID-19	3 days 7 days	**U07.1**
Part II Other significant conditions contributing to the death but not related to the disease or condition causing it.	…… …… ……		

Example 2 : 60 year old male, father of COVID-19 patient and a known diabetes individual presented with Influenza like illness (ILI) and died, test for COVID-19 not available			
CAUSE OF DEATH			
Part I		**Interval between onset and death approx**	**For statistical use**
Immediate Cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc	a) Acute respiratory distress syndrome (ARDS)	1 day	
Antecedent cause Morbid conditions, if any, giving rise to the above cause stating underlying conditions last.	b) Influenza like illness c) COVID-19 suspect	4 days 4 days	**U07.2**
Part II Other significant conditions contributing to the death but not related to the disease or condition causing it.	Diabetes …… ……	15 years	

Example 3 : 50 year old female completed chemotherapy for Breast cancer admitted with breathlessness and developed shock and died			
CAUSE OF DEATH			
Part I		**Interval between onset and death approx**	**For statistical use**
Immediate Cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc	a) Disseminated Intravascular Coagulation (DIC)	2 days	

Antecedent cause Morbid conditions, if any, giving rise to the above cause stating underlying conditions last.	b) Pneumonia c) COVID-19	5 days 5 days	**U07.1**
Part II Other significant conditions contributing to the death but not related to the disease or condition causing it.	Breast Cancer	6 months	

Example 4 76 year old male with Ischemic heart disease developed fever and breathlessness two days ago, and was admitted and died in 24 hours, first test was inconclusive			
CAUSE OF DEATH			
Part I		**Interval between onset and death approx**	**For statistical use**
Immediate Cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc	a) Acute cardiac injury	1 day	
Antecedent cause Morbid conditions, if any, giving rise to the above cause stating underlying conditions last.	b) Probable COVID-19	2 days	**U07.2**
Part II Other significant conditions contributing to the death but not related to the disease or condition causing it.	Ischemic heart disease		

3.3 What to avoid as Cause of Death?

- Avoid Mode of Dying as Cause of Death – Mode of dying merely tells you that death has occurred and is not specifically related to the disease process.

Mode of dying		
Respiratory Arrest	Emaciation	Vasovagal attack
Asphyxia	Exhaustion	Cardiac arrest
Asthenia	Heart Failure	Heart attack
Brain failure	Hepatic/Liver failure	Hepatic failure
Cachexia	Hepatorenal failure	Liver Failure
Cardiac Arrest/Heart Attack	Kidney failure/Renal failure	Cardio respiratory failure Multiorgan/System failure

Cardio Respiratory Arrest Coma Debility	Respiratory arrest/Failure Shock Syncope Uraemia Vagal inhibition	Respiratory Failure Cardio Pulmonary failure

- Avoid abbreviations and short forms like ARDS, COPD, SARI.

Incorrect	Correct
ARDS	Acute respiratory distress syndrome
COPD	Chronic obstructive pulmonary disease
SARS	Severe Acute Respiratory illness
CRF	CRF could be Cardio respiratory failure or Chronic Renal failure
MI	Myocardial Infarction / Mitral Incompetence
AD	Acute Diarrhoea / Alzheimer`s Dementia
MS	Mitral Stenosis / Multiple Sclerosis
RTI	Respiratory Tract Infection / Reproductive Tract Infection

- **Though COVID-19 (Corona virus disease -19) is an abbreviation, it has been specified by the WHO and is an acceptable term to be used as UCOD**.

- Avoid vague terms or ambiguity –
  Sometimes it is difficult to provide a simple description of cause of death when there are no medical records or a doctor is seeing the patient in a critical condition for the first time or the doctor is not the treating physician.

Incorrect	Correct
Irrelevant talking and feverishness	Delirium due to fever
Very poor nourishment	Severe Malnutrition
Less healthy at birth	Low birth weight / Congenital Anomaly

- Avoid short forms / incomplete description –

Incorrect	Correct
Ca Br	Cancer Breast / Cancer Brain
Ac. Infarct	Acute Myocardial Infarction / Acute Cerebral Infarction
Sev Mal	Severe Malaria / Severe Malnutrition

- Avoid symptoms / signs

Incorrect	Correct
Jaundice	Hepatitis
Fever	Infection
Chest pain	Angina

- Avoid terms such as senescence, old age, senility, infirmity, and advanced age.

These terms cannot be the immediate cause of death. There may be 1 or 2 conditions that have been due to old age and thus the etiological sequence should be specified. If old age was a contributory factor, it should be entered in Part II.

Part I	Incorrect	Correct
Ia	Bed ridden	Aspiration Pneumonia
Ib	Old Age	Stroke
Ic	Hypertension	
Part II		
I		Old Age
		Hypertension

3.4 Other considerations in recording MCCD for COVID -19

i. Provide specific medical terms as cause of death. COVID-19 is a 'viral infection' and presentations include 'influenza like illness' (ILI) or "Severe acute respiratory illness (SARI). These are not specific and can be used in the sequence of the events and the specific virus / bacteria / agent that caused the disease should be recorded as UCOD, for example COVID-19.

ii. Record the logical sequence of events in Part 1. There may be many medical conditions in a person. Based on the most logical events that caused death, only these conditions are mentioned in Part 1 of the MCCD form.

iii. Manner of death: It refers to the circumstances under which death has occurred.

- Manner of death due to COVID-19 infection will mostly be 'natural', as it is the disease that led to the death.
- In case of suicide by an individual tested +ve for COVID-19, the manner of death may be captured as suicide / pending investigation if the medical autopsy is awaited.

iv. **Place of death:** Most of the deaths due to COVID-19 occur in a hospital and in such cases the place of death should be captured as 'Hospital'. In case an individual is discharged from hospital and the death occurs in his/her residence, the place of death must be captured as 'House'.

4. Use of ICMR-NCDIR e-Mortality (e-Mor) software for recording cause of death

The ICMR-NCDIR e-Mortality (e-Mor) software application aids in recording and reporting cause of deaths as per national standards of death reporting laid down by the Office of Registrar General of India (ORGI) under its Civil Registration System (CRS). This software can be implemented by hospitals and district local registrar offices in a district (to record deaths occurring in residence). Institutions should register with ICMR-NCDIR or State authority for provision of authorized login credentials. This will allow access to the software with its technical training on MCCD), ICD-10 coding for cause of death and use of software for recording and reporting deaths. The application data entry form is designed to record all details of Form 2 (Death Report) and Form 4 / 4A (MCCD Forms).

NCDIR e-Mor software features include:

a. Record details of death of all institution and non-institution based deaths with guide to prevent errors in cause of death
b. Guide in recording the sequence of death events and underlying cause of death

c. Guide in ICD-10 coding as per the National list of the ORGI and codes for COVID-19 announced by the World Health Organization.
d. Quality check modules to reduce errors in recording like date check, missing field check and search and export features
e. Exporting data to maintain mortality register of the institutional deaths and generate statistical tables for data analytics to establish mortality audit systems in hospitals.
f. On completion of accurate data entry, Form 2 and Form 4 can be printed, signed by appropriate authority for further submission to the Local Registrar for Death registration under CRS.
g. District Registrar and Chief Registrar Office at the state level can monitor data coverage, MCCD coverage, and generate statistical tables on leading causes of death district and state wise.

Role of NCDIR: NCDIR e-Mor software is accessible online through dedicated secure webserver that hosts the software and shall support the online data transmission and standard data encryption. Offline access to the software may also be facilitated.
As coordinating unit, NCDIR team shall provide technical resources in implementation and monitoring of data quality. As per the NCDIR policy of data processing and disclosure, all necessary safeguards for data confidentiality and data security will be maintained. NCDIR shall develop data analytics for reporting all-cause mortality statistics and deaths related to COVID-19 as per guidelines. NCDIR will assist state/UT governments in strengthening MCCD through technical assistance.

Additional Guides

ICMR-NCDIR e-Mor : http://ncdirindia.org/e-mor/

[This software is available free of cost for use by any hospital/health facility/private practitioner/ administrative unit concerned with recording cause of death]

World Health Organization. COVID-19 coding in ICD-10. Available from:
https://www.who.int/classifications/icd/COVID-19-coding-icd10.pdf?ua=1
National Center for Health Statistics. Guidance for certifying deaths due to COVID–19. Hyattsville, MD. 2020.

Physicians Manual on Medical Certification of Cause of Death by ORGI, India.

Joint Statement on Safety and Efficacy of COVID-19 Vaccine (Signed by 111 Doctors from across the country)

The very understanding of the microbe and its role in human sickness (by the mainstream medical system) should be questioned in general and specifically in case of COVID-19, as we now know that according to CDC-USA, people who wore masks suffered from COVID-19 20 times (2000%) more than the people who did not wear a mask. Further, the fatality rate of just 0.1% in COVID-19 (comparable to Flu) does not warrant any special precaution including vaccination.

Q1. Does the vaccine qualify the "Gold standard" of epidemiologic studies, the Randomized Double Blind Placebo Control (RDBPC) Studies?

Answer: As of now it is safe to believe that no Randomized Double Blind Placebo Control (RDBPC) studies have taken place till they are published in peer reviewed medical journal.

Q2. In India, Astra Zeneca got approval to launch COVID-19 vaccine (Covishield). Can we rely on the data about the safety of vaccines provided by Astra Zeneca?

Answer: In the past, Astra Zeneca has been guilty of giving wrong data at least 12 times, amounting to a penalty of about $617241159 which is equal to INR 45,05,86,04,607 (Forty-five hundred crore, eighty-six lakh, four thousand six hundred seven rupees).

The above data shows that the efficacy and safety of Astra Zeneca vaccine cannot be trusted.

Q3. Can we rule out the long-term side effects of COVID-19 vaccine such as Infertility, Paralysis, Neurological disorder and death?

Answer: The vaccine has not been tested for its long-term effects so the

above side effects cannot be ruled out.

Q4. As the vaccination drive has already started in the US and the UK, what is the rate of side effects?

Answer: As on December 18, 2020, CDC - USA reported that out of 1,12807 vaccinated participants, 3,150 participants would not be able to perform normal daily activities and would require care from the doctor.

Q5. Is the COVID-19 vaccine safe for people allergic to any food/ medicine etc.?

Answer: COVID-19 vaccine is known to cause allergic reactions in certain people and may even cause Paralysis and death. The Government of UK has recommended avoiding the vaccine if you are allergic to any type of food or medicine. Remember each of us can be allergic to some medicine or food.

Q6. For how long will the vaccine be effective?

Answer: Based on the present evidences, the best estimate for the effectiveness of vaccine is maximum two months.

Q7. Since the animal product (Fetal Bovine Serum- FBS) is used in the COVID-19 vaccine, has any technology or screening method been used to rule out the accidental jump of new virus from animals to humans through this vaccine?

Answer: Presently, there is no fool proof screening method available (with the science) to exclude any previously unknown virus from entering into the new vaccine.

Only when millions of people take the vaccine and remain healthy (without having any unexpected adverse reaction) for about 5 years, it will be safe to assume that the vaccine is free of any unknown/new virus.

Q8. In India, if a person gets adverse life-threatening side effects due to COVID 19 vaccine, is there any compensation from the Vaccine Company or the Government of India?

Answer: In UK, about an equivalent of INR 1,20,000,00 is given to the patients injured through the vaccine. In USA also, there is Vaccine Adverse Event Reporting System (VAERS) through which vaccine injured patients are compensated. In 2020, an equivalent of about INR 2000 crore was distributed to vaccine injured people. In India, however there is no such provision, which means Indians can go ahead vaccinating themselves at their own risk.

Q9. Will this COVID-19 vaccine protect against the new variant of SARS-CoV-2?

Answer: There is no evidence to prove the efficacy of COVID-19 vaccine on the new variant SARS-CoV-2. Till then, it is safe to assume that COVID-19 vaccine will not protect against the new SARS-CoV-2 variant/strain.

Q10. Will I be free of the mask and social distancing guidelines, once I vaccinate myself with COVID-19 vaccine?

Answer: No, vaccinating is like voluntarily infecting yourself with the SARS-CoV-2 virus with the hope that it will help the body to produce antibodies against it.

In fact, all vaccinated persons should quarantine themselves for 14 days in the same way as when someone catches infection naturally.

Date: 6th January, 2021

Convener

- Dr Amar Singh Azad
  MD (Paediatrics), MD (Community Medicine)

Co-Conveners

- Dr Biswaroop Roy Chowdhury *(Ph. D Diabetes),*
- Dr K. B. Tumane *(Chest Specialist-MBBS)*,
- Ex-IAS Dr Praveen Kumar *(Senior Homeopath)*

Signatories

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- Dr Satish Malhotra (MBBS, MD)
- Dr Sandeep Sharma (MBBS)
- Dr Mathew Anthony Puthuparampil (MD)
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- Dr Brajendra Yadav (BHMS)
- Dr Hemlata Gupta (BHMS)

Observational Study on Dr BRC's protocol to cure COVID-19

Study by
N.I.N, Ministry of Ayush,
Govt. of India

Gmail

Dr. Biswaroop Roy Chowdhury <biswaroop@biswaroop.com>

Report on the Naturopathy Interventions at COVID Care Centre, Ahmednagar, Maharashtra. reg

ninsmodsn <ninpune@bharatmail.co.in> Tue, Jul 20, 2021 at 12:10 PM
To: biswaroop@biswaroop.com
Cc: satyamaup@gmail.com, drpraveen0891@gmail.com

Dear Sir,

Greetings from National Institute of Naturopathy, Pune.

This is with reference to your intimation to Dr. Praveen.C, Medical Officer, NIN regarding the report.

Please find the attached report on the data collected from the Ahmednagar rural Naturopathy Centre regarding the efficacy of Nature cure intervention and the outcome in mild-moderate COVID cases.

We are thankful for the cooperation extended to us by the N.I.C.E team of dedicated Naturopaths towards this process.

We would be further processing this as a paper and publish in the near future .

Thanks & Regards.

राष्ट्रीय प्राकृतिक चिकित्सा संस्थान,पुणे
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"स्वास्थ्य अवलम्बना से स्वावलम्बना "

"Self Reliance through Self Health Reliance "

#Unite2fightcorona #IDY2021

#NaturopathyDay(18thNovember)

#FitIndia #Yoga #Naturopathy

#AYUSH #ZindagiRaheKhush

Data for Nagar COVID cases -.pdf

Report on the Naturopathy Interventions at COVID Care Centre, Ahmednagar, Maharashtra managed by Network of Influenza Care Experts (N.I.C.E) under Dr. Biswaroop Roy Choudhary.

COVID19 as a pandemic has been a challenge to the healthcare system across the world. Nature cure therapy has been tried as an option for increasing the immunity and body's natural mechanism to overcome this infection across different centers in India. This is a report of some initial data gathered across a single center of Ahmednagar district; where people availed only Naturopathy treatment voluntarily for a week's time period from their day of COVID confirmation and were successfully treated.

The information was collected retrospectively from the patients who were treated at the center by telephonic conversations. The questionnaire tool guide was prepared and reviewed by the expert before its actual administration. The entire tool was converted into Marathi (local language) and used for the data collection (English Version of the questionnaire is attached as an annexure). The data was transferred into Microsoft Excel 2013 for further descriptive analysis.

Intervention details for the cases that were carried out at the Nature Cure center:

1. Yoga: Daily yoga exercise regime was carried out for a period of 30minutes in groups for all the admitted cases in the morning hours.
2. Diet intervention- Sattvik diet, fresh in nutrition and which boosts the immunity was provided to all the patients throughout their stay at the center; which included, raw diet like ample amounts of salads- carrots, tomato, raddish etc, fruits like guava, oranges. Mosambi, mangoes, pomegranate etc, raw roots of turmeric, honey, drinks like fresh fruit juices etc.

Naturopathic Daily Regimen:

Time	**Activity**	
5.30 am	Waking up and attending nature's call	
6-6.30 am	Yoga	
6.30 to 7 am	Sun bath	
7 to 7.30 am	Community Prayer	
7 am	Breakfast	Lemon Water with honey (250 ml)
9 am	Juice	Fruit juice- 300 ml or Coconut water- 250 ml
11 am	Juice	Fruit juice- 300 ml or Coconut water- 250 ml
1 pm	Salad, fruits	As much as the patient wants
2 pm	Juice	Fruit juice- 300 ml or Coconut water- 250 ml
3-4.30 pm	Afternoon nap	----------
5 pm	Salad, fruits	As much as the patient wants
6-6.30 pm	Community Prayer	
8 pm	Dinner- Chapati, Vegetables, Rice, Dal and Fruits	As much as the patient wants

3. Proning for patients with low oxygen saturation, at times assisted proning for some severe cases

4. Recreational activities for the patients-

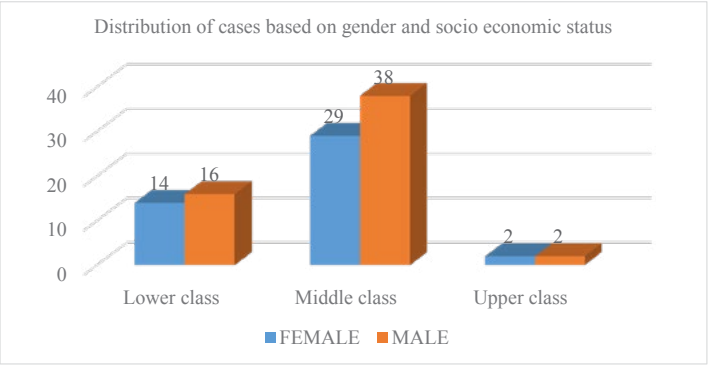
   Dance and singing programs with active participation of the patients daily. The center also held marriage functions and had frequent visits and stay of family members and relatives as a support mechanism for the patients admitted at the center.

   There were Naturopathy experts present round the clock; to ensure that the patients are looked after well.

Salient outcome of the data collected till now:

The entire process of convincing a large set of rural population for Nature cure therapy was by means of a strong communication and the contacts established by the promotors of Nature cure therapy in the surrounding areas of the center. The team of Naturopaths were dedicatedly communicating with patients and their kin regarding the benefits of Nature cure therapy on daily basis.

A total of 101 cases responded to the questionnaire. The following graph shows the gender and socio economic distribution of the population.



Majority of cases from the middle class (67) availed the facility; followed by the lower(30) and the upper class (4).More males (56) availed the Nature cure treatment as compared to women (45) in the center.

The following table shows the test done to confirm COVID 19:

Test Done	**Number**
RT-PCR	51
CT chest	3
RT-PCR, CT CHEST	47
Grand Total	**101**

None of the cases took any medication for long term due to other systemic illnesses- like Diabetes, HTN or arthritis etc.

Only 28 were vegetarians in the total of 101. They all practiced a total vegetarian diet during their entire stay at the center.

None of the cases took any medication for COVID.

All performed Yoga daily for 30 minutes and had sun bath for 30 minutes as a routine regime.

No case reported of any untoward incident or adverse reaction to their fasting experience in Nature cure regime.

Questions were asked to the patients on rating the experience of the Naturopathy regimen, knowledge about Naturopathy and the change in their health.

- The patients were asked to rate their experience of this regimen in the form of an excellent, good, bad or poor score. Overall 24 cases reported it as a good experience; while 76 rated it as excellent.
- When asked about how they got information about Naturopathy treatment for COVID; the patients responded that majority learnt it from the Naturopathy doctors and the promotors of Nature cure therapy (72); while the rest of them got information from Youtube channels and books.

- 97 of the cases said that they would recommend fasting to others; while 4 did not elaborate any reason for not recommending fasting as an option to others.
- The patients were asked to rate their health from 1-10; with 1 being the least score and 10 being the highest. A score between 1-3 was considered to be worse; 4-5 as poor; 6-8 as good and 9-10 as excellent. 55 patients rated their health as above 5 before the nature cure intervention; while all 101 rated their health above 7/10 after the intervention.

Overall it can be concluded that; in all these cases; Nature cure therapy was successful as a regimen for the COVID cases. This can serve as model for the successful handling of all mild to severe cases of COVID and also as a preventive intervention in all the future cases.

Annexure- Questionnaire

Patient Enrolment Number-_____ **Place/ State-**_____

Demographic data:

Name of the patient (in Full)_____
Age in years (last completed age)_____
Date of Birth (if known)_____
Gender (Male/Female/Others)_____
Level of Education: ☐Illiterate ☐Primary school ☐Middle School ☐High secondary ☐ Intermediate ☐Graduate ☐Professional Degree
Occupation of the head of the family: ☐Professional ☐Semi-Professional ☐Clerical/Shop owner/Farm ☐Skilled worker ☐Semi-skilled worker ☐Unskilled worker ☐Unemployed
Monthly family income: ☐>52734 ☐26,355 to 52733 ☐19759 to 26354 ☐ 13,161 to 19758 ☐7,887 to 13,160 ☐2641 to 13,159 ☐<2640
Contact residential address in full: _____
Telephone number:_____
History of COVID illness: Which test was used to confirm your COVID 19 diagnosis? ☐RT-PCR ☐Rapid Antigen test ☐CT chest score
Please explain the possible reasons for testing for COVID? (Like exposure, front line work etc.)

Date of confirmation:_____ (dd/mm/yyyy)

Were you admitted to a centre for treatment? ☐Yes ☐No

Of the following which all symptoms did you experience?

- Fever ☐
- Sore throat ☐
- Cough ☐
- Headache ☐
- Body ache ☐
- Fatigue ☐
- Shortness of breath ☐
- Anosmia (loss of smell) ☐
- Ageusia (loss of taste) ☐
- Diarrhoea ☐
- Vomiting ☐
- Loss of appetite ☐
- Abdominal pain ☐
- Weakness ☐

Others (specify): _____

Do you have any other medical ailment, if yes, please specify which one(s)_____

(Specific to- Diabetes Mellitus, Hypertension, Bronchial Asthma/ COPD/ Cardiovascular disease/ CVA (Stroke)/ Immunodeficiency disorders/ Malignancy or history of malignancy/ Liver disease/ Chronic Kidney Disease)

Medication taken for the above stated medical ailment?

Generic Name	Frequency	Duration (in years)

Surgical History:

Name of procedure and the time when carried out (how many years ago)_____

Dietary habit:

☐Vegan Vegetarian ☐ Vegetarian ☐ Mixed

Substance abuse (if any) (Tobacco, Alcohol or any other)

Type	Form of intake (liquid, chewable, smoking etc.)	Frequency of intake (per day or week)	Duration (in years)

Were you administered any allopathic medication for COVID 19?

☐Yes ☐No

If yes; which of the following applies to you?

Name	Dose	Duration of use	Route
List of Modern Medicines			
Azithromycin			
Doxycycline			
Methyl prednisolone			
Ivermectin			
Inhalational Steroids			
Vitamin C			
Zinc			
Others			
AYUSH Medicines or other type of interventions taken			

NATUROPATHY INTERVENTION:

Specify the type of intervention(s) and the duration of the same in detail.

1. Time of getting up daily during the therapy period:_____ am
2. Time of sleeping at night: _____pm
3. Afternoon rest/nap:_____(in hours; approximately)
4. Time of sun exposure (sun bath): From _____ to _____ (_____hours).

Diet:

Serial Number	Time	Food consumed and its form (liquid, semi solid, solid)	Nature (Raw, Cooked, Partially Cooked)	Quantity (in approximation)

After how many days of getting naturopathy therapy did the symptoms of COVID that you suffered from wear out?

☐1 day

☐2 days

☐3 days

☐4 days

☐>4 days

Please list out all the Adverse/Severe Adverse events in case of any of the above mentioned interventions below. In case of no ADE or SAE; leave the space blank.

AD/SAE with Allopathy:

AD/SAE with Ayurveda:

AD/SAE with Naturopathy:

How did you become aware of fasting as a therapeutic form for COVID 19?

Social Media ☐

Television ☐

Internet ☐ Expert opinion/doctor ☐ Personal Experience ☐ Suggestion from family/friend ☐ Others (specify): _____
Explain your experiences on fasting during COVID (Probe each day's experience- Did it begin with difficulty and come down later on or was it easy to do so initially itself, mental frustration, anxiety, hunger pangs, feeling of empty stomach, lack of sleep, irritability or any other change in behavioural pattern): Day 1: Day 2: Day 3: Day 4: Day 5:
How will you describe your overall fasting experience? (Like Good, bad, excellent. Probe

to know if he/she felt it as a part of routine life or out of context)
Any other additional guidance if received during fasting, please explain (Like from Your tube, Books, Social Media, Internet etc.)
Will you recommend fasting to other COVID 19 patients? ☐Yes ☐No
If no; please specify the reason(s) why? (Probe the negative experience- Like difficult to do, Hunger pangs, irritability GIT disturbances, Headache, acidity or any other)
Rate your overall health before fasting on a scale of 1-10; with 1 being worst and 10 being excellent health. _____
Rate your overall health after fasting and recovering from COVID on a scale of 1-10; with 1 being worst and 10 being excellent health. _____

Vaccinated to Death

This book is the collection of more than 3500 research papers proving that COVID-19 vaccination led to doubling of all kinds of human illnesses. This book explains how seemingly harmless act of "torch जलाओ, दीया जलाओ, घर की बत्ती बुझाओ, थाली बजाओ, चम्मच बजाओ" led to mass obedience following the compliance of volunteering to injecting deadly COVID-19 vaccine leading to irreversible health catastrophe.

About the Author :

Dr. Biswaroop Roy Chowdhury created the Mathematical Model of Nutrition, the D.I.P. Diet, which has been proven effective in Diabetes, Hypertension, Obesity, Bone Diseases, and Chronic Kidney Diseases through clinical trials in India (Ayush Ministry), Nepal (National Health Ministry), and Malaysia (Lincoln University).

Furthermore, he received the Innovation Award-2024 (WASME & Ethiopian Embassy) for his gravity and heat-based invention, the GRAD system, to reverse chronic kidney diseases.

Dr. Biswaroop Roy Chowdhury, a Guinness World Record Holder (2008 edition) for his memorization abilities, is an engineering graduate with a post-graduation in Diabetes and a PhD (Hon.) in Diabetes and Chronic Kidney Disease.

With an impressive portfolio of 35 published books, he successfully oversees the Dr BRC Clinics & Hospitals with more than 500+ network of Dr BRC Clinic@home and HIIMS Medical Academy, which actively engages in healthcare endeavors across India, Vietnam, Nepal, and Malaysia.

Dr. Biswaroop Roy Chowdhury
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