

Exhibit 519

Blood Clots after COVID-19 Vaccination

https://petermcculloughmd.substack.com/p/blood-clots-after-covid-19-vaccination?utm_source=profile&utm_medium=reader2

Blood Clots after COVID-19 Vaccination

Published Reports Represent the Tip of the Iceberg



PETER MCCULLOUGH, MD
OCT 17, 2023



325



30



29

Share



ARTICLE VOICEOVER

1x

-4:01



By Peter A. McCullough, MD, MPH

Recently [Health Feedback](#), a pro-vaccine false counterclaim, fact-checker blogging website made this statement:



Health Feedback

SOURCE: Peter McCullough, Facebook, Substack, 17 Sep. 2023 [↗](#)

"Blood clots like we've never seen before. The spike protein is the most thrombogenic protein we've ever seen in human medicine. It's found in the blood clots. The spike protein causes blood clots. Blood clots larger and more resistant to blood thinners than we've ever experienced in human medicine."

McCullough offered no evidence to substantiate these hyperbolic claims. While viral vector COVID-19 vaccines, like the Oxford-AstraZeneca vaccine, are associated with a slightly increased risk of a particular blood clotting disorder known as [vaccine-induced immune thrombotic thrombocytopenia](#), it's still unclear exactly why the vaccine causes this problem in a small number of people who received the vaccine.

Research is still ongoing, but [one group at Cardiff University](#) found that the viral vector—the adenovirus used to carry the spike protein blueprint into cells—could trigger an abnormal immune response that causes platelets to clump together, leading to blood clotting^[9].

In summary, the exaggerated claims by McCullough aren't supported by scientific evidence, and they gloss over the fact that COVID-19 itself is associated with a [higher risk of blood clotting disorders](#), as well as [cardiovascular problems](#), compared to COVID-19 vaccination^[10-16].

When discussing safety, case reports always represent the tip of the iceberg since not all patients are contacted regarding health events after serial exposures to EUA mRNA or adenoviral DNA vaccination. I did a literature search on PUBMED and found 1046 listings for “COVID-19 vaccine” and “thrombosis.”

The screenshot shows the PubMed website interface. At the top, there is a blue header with the NIH logo and the text "National Library of Medicine National Center for Biotechnology Information" and a "Log in" button. Below the header is the PubMed logo and a search bar containing the text "covid-19 vaccine thrombosis". To the right of the search bar is a "Search" button. Below the search bar are links for "Advanced", "Create alert", "Create RSS", and "User Guide".

Below the search bar, there are buttons for "Save", "Email", and "Send to". To the right of these buttons is a "Sort by:" dropdown menu set to "Most recent", and a "Display options" button with a gear icon. Below these buttons is a horizontal line.

Below the horizontal line, there is a section for "MY NCBI FILTERS" with a small icon. To the right of this section is the text "1,046 results" and a pagination control showing "Page 1 of 105".

Below the "MY NCBI FILTERS" section is a "RESULTS BY YEAR" section. It features a bar chart with two bars: one for the year 2012 and one for the year 2023. The 2023 bar is significantly taller than the 2012 bar. Below the chart is the text "TEXT AVAILABILITY".

Below the "RESULTS BY YEAR" section is a list of search results. The first result is a checkbox followed by the title "Vaccine-Induced Immune Thrombocytopenia and Thrombosis (VITT)-Insights from Clinical Cases, In Vitro Studies and Murine Models." Below the title is the citation information: "Dabbiru VAS, Müller L, Schönborn L, Greinacher A. J Clin Med. 2023 Sep 22;12(19):6126. doi: 10.3390/jcm12196126. PMID: 37834770 Free PMC article. Review." Below the citation is a short abstract: "An effective worldwide vaccination campaign started and is still being carried out in the face of the coronavirus disease 2019 (COVID-19) pandemic. While vaccines are great tools to confront the pandemic, predominantly adenoviral vector-based vaccines ..."

Woo, et al, from the Office of Biostatistics and Pharmacovigilance, Center for Biologics Evaluation and Research, Food and Drug Administration, Silver Spring Maryland, reported a large number of blood clots in the US from the Janssen adenoviral DNA COVID-19 vaccine. They describe clots extending from the ankle to the groin. I have seen this in my practice with both mRNA and adenoviral vaccines. This nothing like I have seen before.


Received: 11 May 2022 | Revised: 29 July 2022 | Accepted: 5 August 2022

DOI: 10.1002/pds.5523

ORIGINAL ARTICLE

WILEY

Thromboembolic events after Ad.26.COV2.S COVID-19 vaccine: Reports to the Vaccine Adverse Event Reporting System

Emily Jane Woo | Adamma Mba-Jonas | Alisha Thomas | Bethany Baer |
Brendan Day  | Yeowon Kim | Margarita Gomez-Lorenzo | Narayan Nair



Plain language summary

As part of routine public health activities, the Food and Drug Administration reviews side effects that have been reported to the Vaccine Adverse Event Reporting System (VAERS). From February 27, 2021 to February 28, 2022, VAERS received 3790 reports of blood clots in people who had received Janssen COVID-19 Vaccine. Most cases were serious (e.g., life-threatening, fatal, or required hospitalization). Some of the clots were very severe (e.g., extending from the ankle to the groin, or involving both lungs at the same time). Some people had abnormal levels of platelets (blood cells that help the body stop bleeding), but many did not. Reports in VAERS do not prove that a vaccine caused an adverse event. More research is needed to understand whether Janssen COVID-19 Vaccine can cause blood clots.

Woo EJ, Mba-Jonas A, Thomas A, Baer B, Day B, Kim Y, Gomez-Lorenzo M, Nair N. Thromboembolic events after Ad.26.COV2.S COVID-19 vaccine: Reports to the Vaccine Adverse Event Reporting System. *Pharmacoepidemiol Drug Saf.* 2022 Nov;31(11):1174-1181. doi: 10.1002/pds.5523. Epub 2022 Sep 5. PMID: 36065046; PMCID: PMC9538147.

Bekal et al, reported cases of obvious mRNA vaccine induced thrombosis. When measured, the D-dimer was a tip off that Spike-protein had triggered the coagulation cascade. Note the clots are in temporal relationship to the vaccine administration, not COVID-19 illness.

Thrombosis Development After mRNA COVID-19 Vaccine Administration: A Case Series

Sundeep Bekal¹, George Husari², Marcel Okura², Charity A. Huang³, Mohammed S. Bukari⁴

Review began 06/23/2023

Review ended 07/01/2023

Published 07/04/2023

© Copyright 2023

Bekal et al. This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

1. Internal Medicine, Community Hospitalist Physician Group, Fresno, USA 2. Internal Medicine, University of California, San Francisco Fresno, Fresno, USA 3. Hematology and Oncology, Harbor-University of California Los Angeles Medical Center, Torrance, USA 4. Hematology and Oncology, University of California, San Francisco Fresno, Fresno, USA

Corresponding author: Sundeep Bekal, sundeepbekal@gmail.com

Abstract

The coronavirus disease 2019 (COVID-19) pandemic remains one of the largest global health crises of the last century. Fortunately, COVID-19 vaccines have proven to be one of the most promising options in halting the progression of the pandemic. As more and more people receive COVID-19 vaccines, the medical community has learned a great deal about their efficacy and the occurrence of very rare adverse effects. While the number of thromboembolic events post-adenoviral vaccines has been well-documented in the medical literature, there has been limited information regarding thrombosis development after receiving a messenger RNA (mRNA)-based vaccine. This case series highlights four different patients who received an mRNA-based COVID-19 vaccine and subsequently developed venous thromboembolism. Therefore, we hope that after reviewing this article, physicians will be more aware of thrombosis-related developments following mRNA vaccine administration for COVID-19. Fortunately, with early diagnosis and prompt treatment, patients can still expect full recovery from any vaccine thrombosis-associated complications, and the benefits of receiving an mRNA-based COVID-19 vaccine still outweigh the risks of post-vaccination complications.

Bekal S, Husari G, Okura M, Huang CA, Bukari MS. Thrombosis Development After mRNA COVID-19 Vaccine Administration: A Case Series. *Cureus*. 2023 Jul 4;15(7):e41371. doi: 10.7759/cureus.41371. PMID: 37546104; PMCID: PMC10400017.

Kaimori et al reported autopsy findings in a 72 year-old woman with diffuse large B-cell lymphoma of the stomach, a who died at home 2 days after taking Pfizer. The body was riddled with micro-blood clots (thrombotic microangiopathy [TMA]).

CASE REPORT

Open Access



Histopathologically TMA-like distribution of multiple organ thromboses following the initial dose of the BNT162b2 mRNA vaccine (Comirnaty, Pfizer/BioNTech): an autopsy case report

Ryo Kaimori^{1,2,3*}, Haruto Nishida^{2*}, Tomohisa Uchida¹, Mari Tamura¹, Kohji Kuroki¹, Kumi Murata¹, Kinta Hatakeyama⁴, Yoshihiko Ikeda⁴, Kisaki Amemiya⁴, Akira Nishizono^{3,5}, Tsutomu Daa² and Shinjiro Mori¹

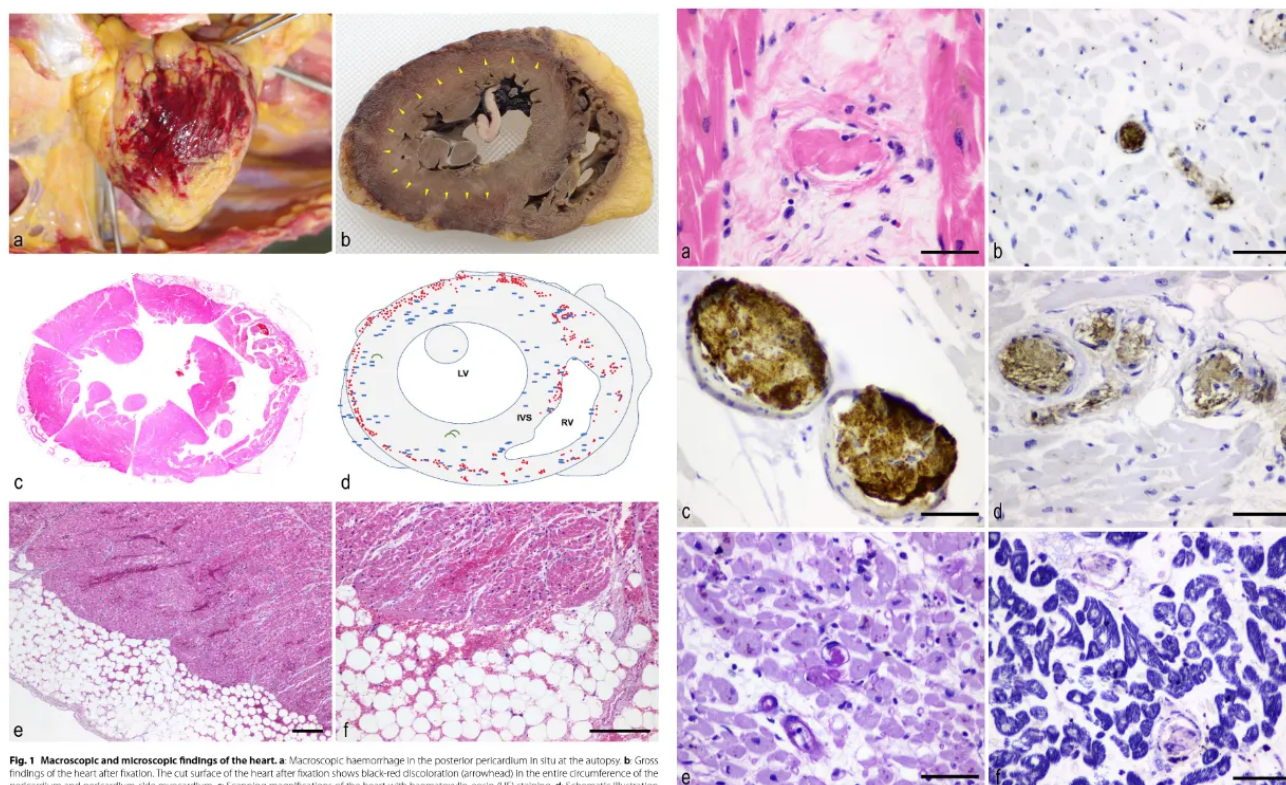


Fig. 1 Macroscopic and microscopic findings of the heart. **a** Macroscopic haemorrhage in the posterior pericardium in situ at the autopsy. **b** Gross findings of the heart after fixation. The cut surface of the heart after fixation shows black-red discoloration (arrowhead) in the entire circumference of the pericardium and pericardium-side myocardium. **c** Scanning magnifications of the heart with haematoxylin-eosin (HE) staining. **d** Schematic illustration of the microscopic pathology. The red dots indicate the microscopic haemorrhage, the blue rectangle indicates the thrombus, and the green arc indicates the contraction band necrosis. LV: left ventricle; IVS: interventricular septum; RV: right ventricle. **e** and **f** Low- and high-power views of the haemorrhage in the pericardium and pericardium-side myocardium, which is compatible with the discoloration in macroscopic observation. Scale bars indicate 100 μ m (**e, f**).

Fig. 2 Immunohistochemistry of microthrombi in the heart. Microvascular hyaline thrombus stained with **a**: HE staining. **b**: anti-CD42b. **c**: anti-CD61. **d**: anti-WF. **e**: Periodic acid Schiff staining. **f**: Phosphotungstic acid haematoxylin staining. Scale bars indicate 50 μ m (**a-f**).

Kaimori R, Nishida H, Uchida T, Tamura M, Kuroki K, Murata K, Hatakeyama K, Ikeda Y, Amemiya K, Nishizono A, Daa T, Mori S. Histopathologically TMA-like distribution of multiple organ thromboses following the initial dose of the BNT162b2 mRNA vaccine (Comirnaty, Pfizer/BioNTech): an autopsy case report. *Thromb J.* 2022 Oct 6;20(1):61. doi: 10.1186/s12959-022-00418-7. PMID: 36203145; PMCID: PMC9540301.

In a 2023 systematic review of the literature, Tan et al, reported:

“A total of over 24,000 thrombotic events have been reported, the majority of which have been associated with adenoviral vector-based vaccine, particularly AstraZeneca (5 in 100,000 up to 6 in 1000), followed by Janssen (8–30 in 1,000,000 doses), Pfizer (6 in 1,000,000 up to 1 in 1000 doses) and Moderna (4 in 10,000,000). Antibodies against platelet factor 4 (PF 4) were positive in 67 cases in AstraZeneca and 17 cases in Janssen, and it was not tested or mentioned in cases of mRNA-based vaccine. Overall, the thrombotic event is more frequently occurred after 1st dose of AstraZeneca vaccine (Table 3). Death related with thrombotic event was registered 238 cases in Pfizer, 186 cases in AstraZeneca, 54 cases in Moderna and 17 cases in Janssen.”

This brief exercise demonstrates how dangerous false counterclaims can be made by uncredentialed, internet blogger services deceiving the public on vaccine safety. My advice is to follow highly credentialed doctors taking care of patients in their practice with side effects after the vaccine. Any blogger downplaying safety concerns is a public health risk. Always, safety first.

Please subscribe to *Courageous Discourse* as a paying or founder member so we can continue to bring you the truth.

Peter A. McCullough, MD, MPH

President, McCullough Foundation

www.mcculloughfnd.org

[Health Feedback Reviews Dr. McCullough's Claims about COVID-19 vaccines at event hosted by European political party](#)

[Woo EJ, Mba-Jonas A, Thomas A, Baer B, Day B, Kim Y, Gomez-Lorenzo M, Nair N. Thromboembolic events after Ad.26.COV2.S COVID-19 vaccine: Reports to the Vaccine Adverse Event Reporting System. *Pharmacoepidemiol Drug Saf.* 2022 Nov;31\(11\):1174-1181. doi: 10.1002/pds.5523. Epub 2022 Sep 5. PMID: 36065046; PMCID: PMC9538147.](#)

[Bekal S, Husari G, Okura M, Huang CA, Bukari MS. Thrombosis Development After mRNA COVID-19 Vaccine Administration: A Case Series. *Cureus.* 2023 Jul](#)

4;15(7):e41371. doi: 10.7759/cureus.41371. PMID: 37546104; PMCID: PMC10400017.

Kaimori R, Nishida H, Uchida T, Tamura M, Kuroki K, Murata K, Hatakeyama K, Ikeda Y, Amemiya K, Nishizono A, Daa T, Mori S. Histopathologically TMA-like distribution of multiple organ thromboses following the initial dose of the BNT162b2 mRNA vaccine (Comirnaty, Pfizer/BioNTech): an autopsy case report. *Thromb J.* 2022 Oct 6;20(1):61. doi: 10.1186/s12959-022-00418-7. PMID: 36203145; PMCID: PMC9540301.

Tan LJ, Koh CP, Lai SK, Poh WC, Othman MS, Hussin H. A systemic review and recommendation for an autopsy approach to death followed the COVID 19 vaccination. *Forensic Sci Int.* 2022 Nov;340:111469. doi: 10.1016/j.forsciint.2022.111469. Epub 2022 Sep 20. PMID: 36162300; PMCID: PMC9487151.



325 Likes · 29 Restacks

30 Comments



Write a comment...



Patricia Oct 17

You advise us to 'follow highly credentialed doctors taking care of patients in their practice with side effects after the vaccine' I agree and my advice is to also subscribe to the substacks of these doctors, with a paid subscription if you can possibly afford to, as these doctors, like yourself, are beyond invaluable in the fight against the global medical industrial complex.

♡ LIKE (46) 💬 REPLY ↗ SHARE ⋮

1 reply



Dollars4Dummies Oct 17

"Dr. McCullough offered no evidence . . ." Ridiculous! The reason I follow you is your amazing habit of citing every source of information, including names and dates, often from memory. I find that astonishing, and also reassuring, in that I know you won't make unfounded claims the way "fact checkers" do. Thanks again for your steadfast reliability.

 LIKE (37)  REPLY  SHARE



28 more comments...

© 2023 Peter McCullough MD MPH • [Privacy](#) • [Terms](#) • [Collection notice](#)
[Substack](#) is the home for great writing