

# Case reports thrombocytopenia with thrombosis following COVID-19 mRNA vaccine

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A single case reports thrombocytopenia with thrombosis syndrome (TTS) following the mRNA-1273 vaccine for COVID-19. Previously, it

was hypothesized that adenoviral vector-based vaccines were the sole cause of TTS or vaccine-induced TTS (VITT). The case is published in *Annals of Internal Medicine*.

Researchers from Allegheny Health Network, Pittsburgh, Pennsylvania report the case of a 65-year-old man with chronic hypertension and hyperlipidemia who presented to the hospital with 1 week of bilateral lower-extremity discomfort, intermittent headaches, and 2 days of dyspnea 10 days after receiving a second dose of the mRNA-1273 [vaccine](#). The patient had no known exposure to heparin, a medication that has been associated with TTS. They were unable to identify other causes of TTS, including SARS CoV-2 infection, other concurrent infections, immune thrombocytopenia, or [thrombotic thrombocytopenic purpura](#), leading the investigators to conclude that the diagnosis might be VITT, as defined by the Centers for Disease Control and Prevention and the Brighton Collaboration. Despite rapid and exhaustive treatment, the patient died.

The authors note that COVID-19 vaccines that use mRNA technology are proven safe and effective and have been used with no such events in millions of people. This is the only report to date of possible VITT or TTS in an mRNA vaccine recipient. They conclude that such a rare event, even if confirmed by additional reports, should not prevent persons from receiving the benefits of these vaccines. An accompanying editorial from the Perelman School of Medicine, University of Pennsylvania discusses the uncertainty around whether the vaccine was the inciting factor and reiterates that, even if it were, given the rarity of the adverse event and the already associated high risk of thrombotic complications of COVID-19, this case report should not dissuade people from vaccination.

**More information:** Study:

<https://www.acpjournals.org/doi/10.7326/L21-0224>

Editorial: <https://www.acpjournals.org/doi/10.7326/M21-2680>

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