

LETTER TO EDITOR

Coincidental presence of arterial occlusive disease rather than direct association of SARS-CoV-2 infection

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Dear editor,

We are grateful for the response towards our recently published case series.¹ We agree that there is an unproven link between COVID-19 vaccination and arterial occlusive disease. In our case series, only three patients with artery occlusions were included.² Two of these patients were aged more than 60 years with other classical cardiovascular risk factors such as tobacco smoking, diabetes and renal failure. All three patients with artery occlusions developed thrombotic events after receiving the second dose of COVID-19 vaccine rather than the first dose. From these observations, the thrombotic events were less likely to be directly caused by COVID-19 vaccination in relation to vessel occlusive disease. The thrombotic events may be attributed to the underlying risk factors and overall ill health conditions. In the literature, the occurrence of limb arterial thrombosis is rare and reported to be associated with vaccine-induced immune thrombotic thrombocytopenia (VITT). This condition is a rare autoimmune complication characterised by thrombocytopenia and thrombotic propensity in the circulatory system.³ VITT requires testing of platelet factor-4 antibody using enzyme-linked immunosorbent assay to ascertain its diagnosis, which was not routinely performed in our series. Therefore, we were unable to determine the associative aetiology.

In our case series, all included patients did not receive any prior anticoagulation. Patient 3 had stopped her warfarin therapy for a year owing to a history of haemorrhagic stroke. Echocardiography was not routinely performed in all patients, particularly when the direct cause of the occlusive disease was known (i.e. artery occlusion at the toes with a history of multiple inotropic agent usage). The peripheral gangrene was presumably related to the overall low flow state and digital arterial thrombosis. We did not identify any patients who had cardiac thrombus or cardiomyopathy in our case series. All nine patients had undergone echocardiography, but only one patient showed features of atrial fibrillation. The majority of the patients with COVID-19 during the study period were nursed in densely occupied medical wards. There were issues of understaffing with a low nurse-to-patient monitoring ratio, which might have led to some delays in administering intravenous hydration and monitoring adequacy among the patients.

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Author contributions

Tan Jih Huei drafted this letter. Henry Tan critically appraised and finalised this letter.

Conflicts of interest

All authors declare no conflicts of interest.

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