Arterial thrombosis in COVID-19: keep in mind to stay vigilant

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Patient A was a 71-year-old man with a medical history of hypertension, ischaemic cardiomyopathy and diabetes. Patient B was a 71-year-old man with smoking history, diabetes and dyslipidaemia. They were both admitted to the intensive care unit 1 week apart for critical COVID-19 requiring high-flow nasal cannula oxygen therapy. On days 2 and 4 of admission, respectively, both developed severe pain of their right upper extremities and pale, pulseless right hands. Right upper extremity CT angiography revealed an occlusion of the right axillary artery in patient A and a right distal brachial artery occlusion in patient B (figures 1 and 2). There were no other potential risk factors for thrombosis, and cardiac embolic sources were excluded with echocardiography. Both patients underwent successful emergent revascularisation, but eventually developed fatal COVID-19-associated respiratory failure, despite optimal ventilation strategies.

Although there is a substantial pool of evidence of venous thrombotic and thromboembolic events in patients with COVID-19, there are a few scattered reports on intra-arterial thrombosis in these patients.1 It has been hypothesised that arterial thrombosis could be a result of direct SARS-CoV-2 endothelial infection leading to endotheliitis, and not just related to the cytokine storm described for COVID-19-associated venous thrombosis.2 The optimal management of COVID-19 continues to evolve as we gain insight of its pathophysiology. Awareness of COVID-19-associated arterial thrombosis risk is crucial to expeditiously recognise and treat this limb-threatening complication that might compromise the patients’ prognosis.

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