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 expediently recognise and treat this limb-threatening complication that might compromise the patients’ prognosis.

Contributors SBR wrote the manuscript. All authors provided critical feedback, contributed to the final manuscript and approved the final version.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

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