

Is it Time to Go Back to Basics?

Apoorv Chaturvedi¹, Anjan Trikha²

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Sir,

We read with interest the article by Piazza et al.¹ in JAMA on arterial and venous thrombosis in COVID-19 patients. We wish to share our clinical observation and experience regarding arterial thrombosis in critically ill COVID-19 patients. We have come across three severely ill COVID-19 patients who had developed radial artery thrombosis following radial artery cannulation. Of these, two developed gangrenous changes despite being on standard therapeutic doses of low-molecular-weight heparin. The two patients who developed these gangrenous changes had thrombus of ulnar artery as evidenced by the Doppler study done after the onset of gangrene. The third patient developed minimal discoloration of the index and the ring finger within few hours of radial artery cannulation. The arterial cannula was removed, and the Doppler study revealed radial artery thrombus and a sluggish flow in the ulnar artery. Confirmation of thrombosis was based on Doppler ultrasonography (USG) in all three patients. An important observation was that all three patients had elevated D-dimer values on admission, as well as raised serum interleukin-6 and ferritin values. Raised D-dimer is similar to the findings of Piazza et al.¹ The authors recommended thromboprophylaxis in critically ill COVID-19 patients. However, our patients developed thrombosis despite thromboprophylaxis. We suggest and have started a practice of doing modified Allen's test in such patients prior to radial artery cannulation. This test despite being far from foolproof is a simple and quick bedside test for assessing the presence of collateral circulation.² It can be performed in conjunction with observation of the plethysmograph on pulse oximetry, in patients at high risk of thrombosis. When indicated, the diagnosis can be

^{1,2}Department of Anaesthesiology, Pain Medicine and Critical Care, All India Institute of Medical Sciences, New Delhi, India

Corresponding Author: Apoorv Chaturvedi, Department of Anaesthesiology, Pain Medicine and Critical Care, All India Institute of Medical Sciences, New Delhi, India, Phone: +91 9819162646, e-mail: dr.apoorv29@gmail.com

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supported by the use of Doppler USG for confirmation. We thus recommend performing the modified Allen's test and observing the plethysmograph in all critically ill COVID-19 patients with raised inflammatory markers prior to arterial cannulation to further safeguard against this dreaded complication.

ORCID

Apoorv Chaturvedi  <https://orcid.org/0000-0002-0683-9101>

Anjan Trikha  <https://orcid.org/0000-0002-6001-8486>

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