



Clot formation between the ECMO catheter and the reperfusion catheter in a patient supported by peripheral VA-ECMO

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A 34-year-old man suffered myocardial stunning and developed cardiogenic shock on day 2 after Bentall operation for his type A aortic dissection. He was put on peripheral veno-arterial extracorporeal membrane oxygenation (VA-ECMO) support. A 17 Fr arterial catheter was set at the right common femoral artery and a 7 Fr reperfusion catheter was set at the right superficial femoral artery. He was not put on full anticoagulation as he had on and off bleeding from surgical wounds requiring blood transfusion. His heart function gradually improved and the patient was fit for decannulation on day 7.

Ultrasonography of the femoral artery, however, showed clot formation in between the arterial ECMO catheter and the reperfusion catheter (Fig. 1). Clot was not found above the ECMO catheter or below the reperfusion catheter as there was continuous blood flow. On top of arteriotomy repair, clot evacuation was performed.

There is a column of stagnant blood in between the ECMO and the reperfusion catheter. Clot formation is possible even with full anticoagulation. A proper ultrasonographic assessment is a must before ECMO decannulation. If the clot is unnoticed and not properly managed, it could result in acute lower limb ischemia after ECMO decannulation.



Fig. 1 Clot formation between the ECMO catheter (black arrow) and the reperfusion catheter (white arrow)

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Compliance with ethical standards

Conflicts of interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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