CARDIOVASCULAR FLASHLIGHT

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Aortic intimo-intimal intussusception in Stanford type A acute aortic dissection

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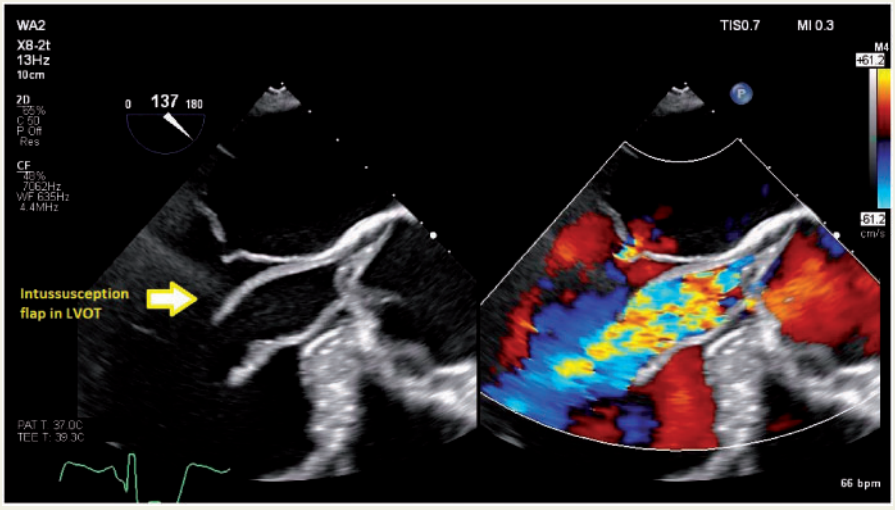
A 73-year-old male was admitted for transient right-side weakness. On examination, there was a 5/6 holo-diastolic murmur on the aortic area. A Stanford type A aortic dissection was diagnosed with intimo-medial flap formation originating from the sinuses of Valsalva/sinotubular junction and extending to the ascending aorta, the aortic arch, the left subclavian artery, and the descending aorta. Radiological imaging revealed extensive intimal stripping with intimo-intimal intussusception in the left ventricular outflow tract (LVOT). Distally, the dissection affected the perfusion of the right renal artery and extended down to the external iliac vessels bilaterally. The patient was therefore referred for urgent surgical treatment: intraoperatively, transoesophageal echocardiography confirmed a Stanford type A aortic dissection with intimo-intimal intussusception of the aortic layers and protrusion into the LVOT leading to torrential aortic valve regurgitation (Supplementary material online, *Video S1* and *Panel*). Given the extensive involvement of all potential peripheral sites for arterial cannulation (including the right and left axillary artery, the brachiocephalic trunk as well as both femoral arteries), a decision was taken to perform direct cannulation of the ascending aorta via the Seldinger technique (Supplementary material online, *Video S2*): in particular, the mid-portion of the ascending aorta was cannulated since it did not present the usual double-lumen appearance (as a consequence of the intimal intussusception in the LVOT) but only the true lumen was present in such segment; proper position of the guidewire in the true lumen was confirmed by transoesophageal echocardiography. Replacement of the ascending aorta and hemiarch with resuspension of the aortic valve was performed with sparing of the aortic root and mild residual aortic regurgitation (Supplementary material online, *Video S3*).



Pre-operative transoesophageal echocardiography evidencing the intimo-intimal intussusception.

Supplementary material is available at *European Heart Journal* online.

Ethical standards: The authors claim that all the surgical procedures contributing to this manuscript comply with the ethical standards of the relevant national guidelines on human experimentation and the Helsinki Declaration of 1975.

Conflict of interest: The authors have submitted their declaration which can be found in the article Supplementary Material online.