

Arterial Dissection With a Vascular Closure Device

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A 74-year-old man with severe aortic stenosis was prepared for a transcatheter aortic valve replacement. Main access was taken from the right femoral artery, as the left femoral artery had high bifurcation (**Figure 1**).

A suture-mediated vascular closure device (Perclose ProGlide, Abbott) was used for hemostasis on the right common femoral artery (CFA). The lever of the device was pulled to deploy the foot within the arterial lumen, and the device was gently pulled back to position the foot against the anterior arterial wall. The position of the foot plate was confirmed by tactical feedback and by the disappearance of pulsatile blood from the marker lumen. The needles were deployed by depressing the plunger. Suture threads were anchored and the device was removed. The removed device showed a linear strand of fibrous tissue (**Figure 2**).

Check angiography showed a dissection in right CFA (**Figure 3a**). The foot plate of the vascular closure device had probably denuded the arterial wall of the right CFA. Balloon angioplasty was done immediately with a 7-mm x 26-mm balloon, achieving a satisfactory result (**Figure 3b** and **Figure 3c**). Stenting was not done due to the proximity to the hip joint.

The patient was observed closely for the next 3 days and was discharged thereafter with good peripheral pulses as evidenced clinically and on Doppler. ■

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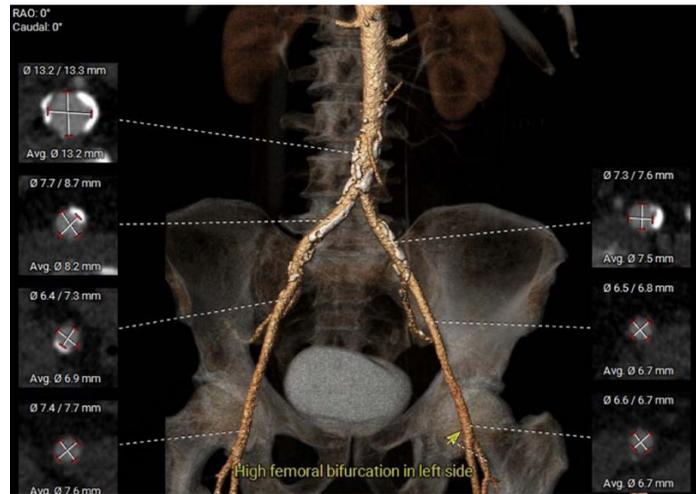


Figure 1. 3D reconstructed computerized tomography of an aortic bifurcation in the lower limb arteries.



Figure 2. The vascular closure device with a denuded tissue strand.



Figure 3. Angiogram showing dissection of the common femoral artery (a); balloon angioplasty with a 7-mm x 26-mm balloon (b). Final angiogram (c).