

Occlusion Following Deployment Of MANTA VCD After TAVR

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Abstract

We present a complication following deployment of the MANTA VCD device following a TAVR procedure which resulted in occlusion of the common femoral artery. This was addressed by ballooning the site from the contralateral side which re-established flow. We believe this is the first report to address this kind of complication and may prove useful as more of the MANTA devices are being used in multiple procedures.

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63 year-old patient with symptomatic severe aortic stenosis underwent TAVR with 23mm Edwards Sapien valve through the left common femoral artery (CFA). After successful valve deployment and closure with MANTA VCD, an angiogram was obtained from the contralateral leg which showed subtotal occlusion at the deployment site and absence of doppler signals at the left foot (Fig. 1). A Glide wire was passed from the contralateral side through the narrowing into the superficial femoral artery. A 4.0 x 40mm Mustang balloon was inflated to 10mmHg (Fig.2). Subsequent completion angiogram showed a patent vessel and normal doppler signals had returned (Fig.3). We hypothesize that this subtotal occlusion occurred due to the footplate, or toggle, which measures 18 mm x 6 mm, likely getting caught on the carina of the femoral bifurcation due to low puncture within the CFA. We believe this is the first report to address this kind of complication and may prove useful as more of the MANTA devices are being used in multiple procedures such as TAVR and Extracorporeal membrane oxygenation (ECMO) decannulation.^{1,2}

References:

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Legend:

Figure 1: Occlusion at deployment site of MANTA proximal to the common femoral artery bifurcation

Figure 2: Ballooning at the MANTA site from the contralateral common femoral artery

Figure 3: Post-ballooning of occlusion showing a patent common femoral artery



