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Angiología

Clinical Image of the Month

Left subclavian artery pseudoaneurysm: complication of percutaneous transaxillary TAVI

Pseudoaneurisma de arteria subclavia izquierda: complicación de implante percutáneo transaxilar de TAVI

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CASE REPORT

A 76-year-old patient treated with a transcatheter aortic valve implantation (TAVI) CoreValve Evolut® No. 29 (Medtronic, MN, United States) via left subclavian percutaneous access presented 6 hours after the procedure with hypotension and a 3-point drop in hemoglobin. Upon examination, the patient showed asymmetry of both hemithoraxes with edema on the left side. A puncture site was identified 2 cm underneath the clavicle at midclavicular line, where a pulsatile mass was palpable. Pulses were preserved. Emergency CCTA (Fig. 1) revealed the presence of an active bleeding

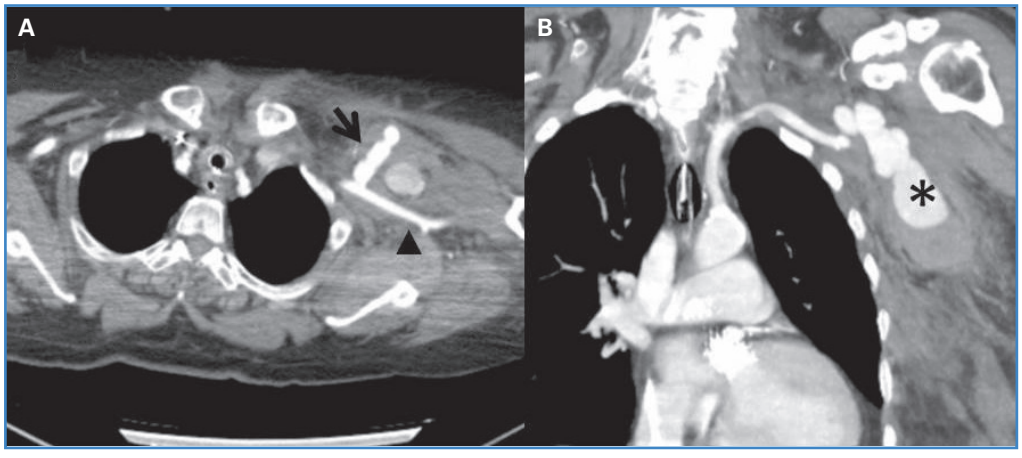

Figure 1. *Preoperative image. Thoracic CCTA. A. Transverse section. Active jet bleeding (arrow) through the left subclavian artery (arrowhead). B. Coronal section. Pseudoaneurysm (asterisk) and hematoma in the thoracic wall.*

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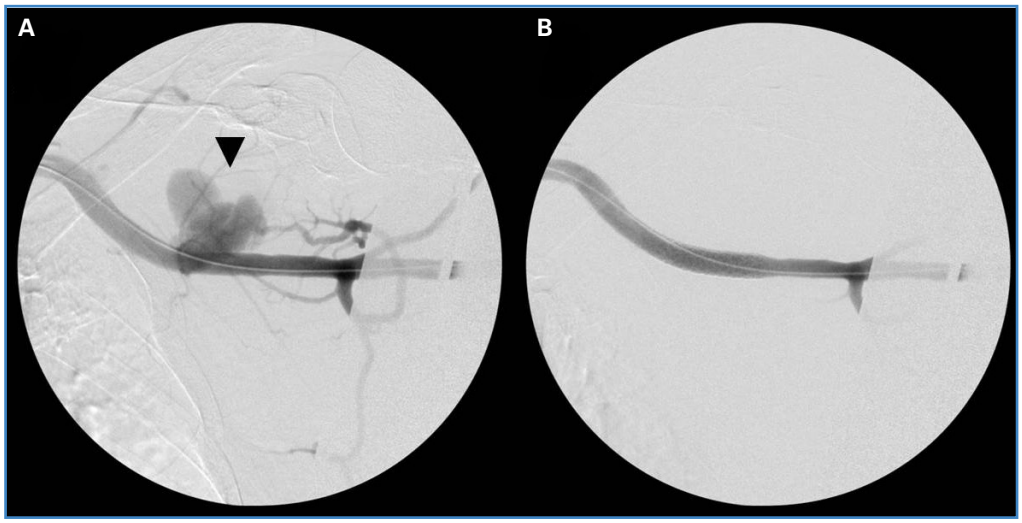

Figure 2. *Intraoperative arteriographic images. A. Active bleeding at subclavian artery level (arrowhead). B. Final angiography showing resolution of the bleeding.*

at left subclavian artery level, with a pseudoaneurysm measuring 47.5 mm in diameter. The patient underwent emergency intervention under general anesthesia via an open brachial approach due to the small caliber of the humeral artery. The subclavian artery was cannulated with a hydrophilic guidewire, and active bleeding was identified in the mid-third of the subclavian artery, where the rupture was successfully excluded using an 8 mm × 38 mm covered stent (E-Ventus, Jotec, Hechingen, Germany) (Fig. 2).

DISCUSSION

TAVI has become widespread in recent years (1). Although vascular morbidity has significantly decreased with new devices, it still occurs in 10 % up to 20 % (2) of cases. In the transaxillary approach, this rate is approximately 18.5 %. Risk factors include female sex and advanced age (3). These complications may be minor, such as hematoma at the puncture site, or potentially life-threatening, such as acute arterial thrombosis (2), avulsion (4), or arterial rupture (5), dissection (6), or aortic rupture (7). These situations pose a therapeutic challenge for the vascular surgeon, who may opt for open surgery or endovascular techniques (2) for resolution.

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