

Rupture of the saccular axillary artery aneurysm after axillary artery cannulation

Aksiller arter kanülasyonu sonrası gerçekleşen sakküler aksiller arter anevrizma rüptürü

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An 81-year-old female was referred to our department with complaints of right upper limb pain and a rapidly swelling axillary mass that had been ongoing for a week. An examination revealed 130/80 mmHg blood pressure at the right upper limb and a pulsatile mass at the axilla. Three years before, the patient had undergone aortic valve and ascending arcus

aorta replacement, and arterial cannulation had been performed through the axillary artery. However, she had no history of trauma or vasculitis and did not have Marfan or Ehlers-Danlos syndrome.

Computed tomography (CT) angiography showed a ruptured saccular axillary artery aneurysm (35x40 mm) and subclavian artery (13 mm in diameter) dilatation (Figure 1). The hematoma measured 90x58x86 mm (Figure 2a, b). The patient underwent surgery in which the true aneurysm sac (Figure 3) and the hematoma were resected, and a 7 mm external ring supported by a polytetrafluoroethylene (PTFE) graft was interpositioned between the subclavian artery and brachial artery. The patient's postoperative course was uneventful.

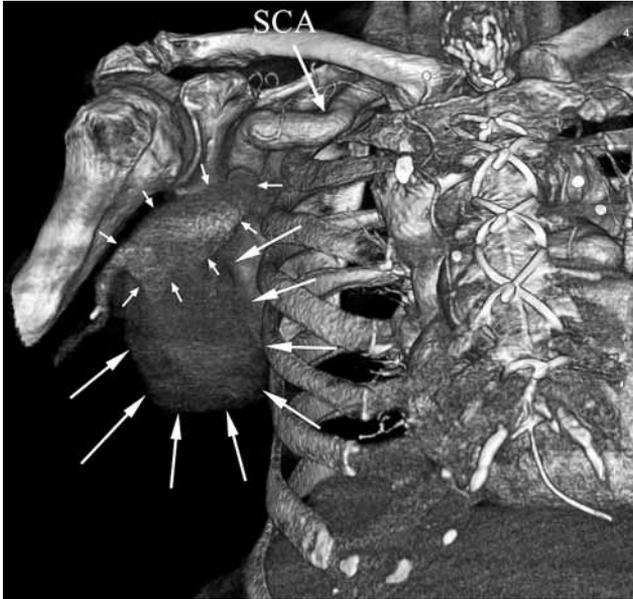


Figure 1. Computed tomography angiography shows the saccular axillary artery aneurysm. The small arrows indicate the border of the axillary artery aneurysm, and the large arrows show the border of the hematoma. SCA: Subclavian artery.

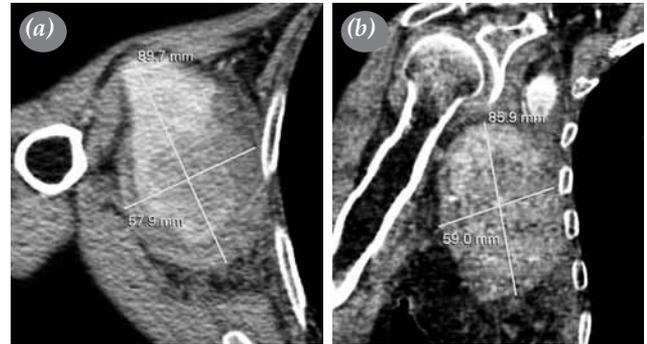


Figure 2. Computed tomography shows the size of the hematoma. (a) The transverse plane of the hematoma measured 90x58 mm while (b) the coronal plane of the hematoma was 59x86 mm.



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Figure 3. Intraoperative view of the aneurysm sac.

Axillary artery aneurysms are rare and occur as a result of penetrating or blunt chest trauma, an iatrogenically, postobstructive lesion due to thoracic outlet syndrome, the chronic use of crutches, or atherosclerosis.^[1]

Axillary artery cannulation is a commonly used access point for CPB when performing surgery on the ascending aorta and arch, but complications such as pseudoaneurysms, thrombosis, or dissection may occur with this procedure. To our knowledge, there is only one case report in the English literature that describes a true subclavian artery aneurysm resulting from retrograde axillary artery cannulation, and we believe this is the first reported case that involves a true axillary artery aneurysm.^[2]

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