Case Report

Atherosclerotic axillary artery aneurysm

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ABSTRACT
Atherosclerotic axillary artery aneurysms are extremely rare. They should be kept in mind in differential diagnosis in pulsatile masses in axillary region and should be treated surgically once they are diagnosed in order to prevent the vascular or neurologic complications. The present study reports a case of a true atherosclerotic axillary artery aneurysm arising in a 48 year old woman which presented with painless pulsatile mass in axillary region.

KEY WORD: Atherosclerosis, Aneurysm, Axillary artery.

INTRODUCTION
Upper extremity aneurysms are relatively rare in comparison with other peripheral arterial aneurysms. True aneurysms of the axillary artery are extremely rare, most pulsatile masses in the region being pseudoaneurysms. Surgical treatment of axillary artery aneurysm is important in avoiding thromboembolism and ischemia, which in turn can lead to gangrene and amputation of the affected extremity hence, operative management of such cases should not be delayed. The present study reports a case of a true atherosclerotic axillary artery aneurysm arising in a 48 year old woman which presented with a four month history of a painless pulsatile mass.

CASE REPORT
A 48-year-old women patient presented to our hospital with a complaint of axillary mass. She had no history of traumatic lesions, infective disease, or upper extremity embolic symptoms. There was no family history about aneurysm. Vital signs were in normal range, bilateral upper and lower extremity pulse were normal. Physical examination revealed a pulsatile hard mass in the right axillary area. Laboratory examination results were as follows; Hemoglobin 10.6 g/dl (12-18.1 g/dl), Creatinine 0.57 mg/dl (0.2-1.2 mg/dl), Cholesterol 201.33 0-200mg/dl, HDL: 45.41 (30-60 mg/dl), LDL Chol: 136.73 mg/dl (0-190mg/dl), Tryglyserid: 95.93 (30-200 mg/dl), VDRL (-), RF (Romatoid Factor) :20.0< IU/ML (0-20iu/ml), CRP: 2.06 mg/dl (0,1-0,5 mg/dl) Estradiol 2,13 uIU/ml (0,2700-4,20 uIU/ml), HbA1c (Hemoglobin A1c): 4,85% (4,8-5,9), Sedimantation 1.hour

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48(0-20), 2.hour 87 (0-60), ANA (Anti-nuclear antibodies), Anti SM (Anti-Smith Antibody) and AMA (Antimitochondrial antibodies) were negative. The chest X-ray was normal. There was no pathological aneurysm in her cranial, thoraco-abdominal computerized tomography (CT) scans. Her echocardiography revealed no abnormalities. Her Doppler ultrasound revealed a 3.27-2.23 cm axillary artery aneurysm (Figure 1).

The patient underwent surgical management with general anesthesia. The aneurysm (Figure 2) was resected, saphenous vein was interposed. The postoperative course was optimal, and the patient was discharged on the 5th postoperative day. Pathologic review was consistent with an atherosclerotic aneurysm without thrombosis (Figure 3-4). She was discharged with 150 mg acetylsalicylic acid per oral once a day. In her 6 month postoperative follow up, she was asymptomatic.

**DISCUSSION**

Axillary artery aneurysms are rare and especially occur as a result of penetrating or blunt chest trauma. They may also occur iatrogenically or as a postobstructive lesion due to thoracic outlet syndrome (TOS) or chronic use of crutches. Atherosclerosis as a cause is very rare. Szuchmacher and colleagues reported 2 cases of atherosclerotic aneurysm, Michalakis and co-authors reported one case, Neumayer’s group reported 2 cases and Morris–Stiff et al reported one case of atherosclerotic aneurysm of the axillary artery. In our patient there were no
trauma, chronic use of crutches history and there were no evidence for TOS.

Axillary artery aneurysms can cause temporary or permanent neurologic defects by compressing the brachial plexus and they can also cause thromboembolic complications.\(^3\)\(^6\) There were no embolic or neurologic complications in our patient. Many vascular problems can be treated by endovascular interventions; the surgical approach is still the best choice.\(^3\) CT with contrast and doppler ultrasound might be used in diagnosis.\(^1\)\(^5\) In our patient aneurysm was diagnosed with doppler ultrasound.

Prosthetic grafts might be used for reconstruction but saphenous vein grafting is better for long term patency.\(^8\) Brachial or axillary veins can also be used for reconstruction; however, because these veins tend to develop aneurysms, saphenous veins should be the first choice when available.\(^4\) We used saphenous vein graft after the resection of aneurysm in our patient. In conclusion, true atherosclerotic axillary artery aneurysms are extremely rare and should be kept in mind in differential diagnosis in pulsatile masses in axillary region and they should be treated surgically once they are diagnosed in order to prevent the vascular or neurologic complications.

REFERENCES