

Saccular Aneurysm of the External Jugular Vein: A Case Report and Review of Literature

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ABSTRACT

Venous aneurysms are rare and are usually found on physical examination or on imaging. In the neck, venous aneurysms are commonly found in the internal jugular vein and are mostly diagnosed as soft tissue masses or vascular malformations. A 44-year old woman was admitted with an asymptomatic slowly enlarging mass on the left side of the neck. Imaging showed the mass as an aneurysm arising from the external jugular vein. She underwent anterior cervicotomy and excision of the

aneurysm. Postoperative period was uneventful. She was discharged on the third postoperative day. Venous aneurysms are rare but should be included in the differential diagnoses of soft tissue masses. Venous aneurysms especially the ones in the neck require surgical removal even when asymptomatic. Venous aneurysms may be a source of pulmonary embolism and thus once detected, especially those on the head and neck regions, need surgical excision.

Keywords: Saccular aneurysm; Phlebectasias; Doppler ultrasonogram

INTRODUCTION

Venous aneurysms are rare but should be included in the differential diagnoses of neck masses. Among the neck veins, venous aneurysms are commonly found in the internal jugular vein and are mostly diagnosed as soft tissue masses or vascular malformations. These aneurysms are clinically significant because of the possible risk of thrombophlebitis or pulmonary embolism. We report the case of a 44 year old woman who presented with an asymptomatic mass on the left side of the neck. She underwent anterior cervicotomy, excision of the aneurysm and ligation of the external jugular vein. The aim of this paper is to emphasize the importance of venous aneurysms in the differential diagnoses of neck swellings and its surgical removal to prevent embolic complications.

CASE REPORT

A 44 year old, non-hypertensive, non-diabetic female presented to the Out Patient Department with an asymptomatic mass which became apparent since six months and had been slowly

growing in size straining with lifting heavy objects or for other reasons resulted in a slight but temporary increase in the size of the neck mass. The swelling was non tender and she did not report any history of injury or trauma to the region of the swelling.

On physical examination, swelling was non tender, well defined, ovoid in shape measuring 2.5*2.0cm with smooth surface and rounded borders located on the left side of the neck over the anterior border of the left Sternocleidomastiod muscle. The swelling was not compressible and no bruit or hum could be heard over the swelling. Physical examination did not reveal any dilatation of neck veins or other swellings in the neck (Figure 1).

X-rays of the neck did not demonstrate any air within the swelling. Magnetic Resonance Angiogram of the neck vasculature showed a saccular aneurysm measuring 18.3*26.6*21.4mm arising from the lateral aspect of the left external jugular vein and causing compression of the parent vessel without any evidence of thrombosis or rupture (Figure 2). Patient underwent anterior cervicotomy under general anesthesia for prophylactic excision of the venous aneurysm and ligation of the external jugular vein (Figure

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Figure 1: Anterior view of the External Jugular vein aneurysm



Figure 2: Magnetic Resonance venogram demonstrating the venous aneurysm



3). Postoperative period was uneventful and the patient was discharged from our hospital on the third postoperative day.

DISCUSSION

The term aneurysm is used to describe the focal saccular or fusiform dilatation of the blood vessels [1]. The definition holds true for both arteries and veins. Other names for aneurysms

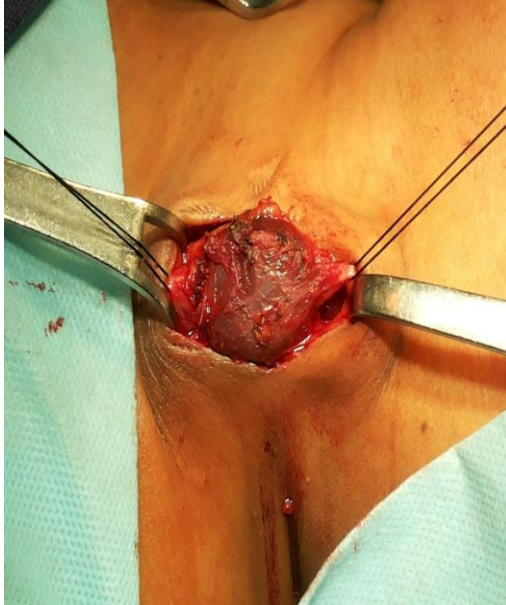
include phlebectasias, or varices [2]. Venous aneurysms are rare entities and may be either congenital (primary) or acquired. Primary venous aneurysms are true aneurysms since they have an intact venous wall [3]. The exact etiology remains unclear although various proposed etiologies include trauma, tumors, inflammation and thoracic outlet syndrome. The term solitary venous aneurysms is used when the aneurysm is isolated and is not associated with trauma, inflammation, congenital malformations or venous disorders. The most common veins involved, in the descending order of frequency are, popliteal veins, saphenous veins, extremity veins, jugular vein, portal vein, Inferior vena cava etc [4].

Aneurysms involving neck veins are more commonly fusiform aneurysms and are commonly called jugular phlebectasias, venomas, venous cysts or congenital venous cysts. They are more common on the right side of the neck and rarely can be bilateral. Clinically, neck aneurysms show an increase in size on valsalva maneuver. It is very important to differentiate these vascular swellings from other tumors in the neck such as hemangioma, laryngocele, cystic hygroma, thyroglossal cyst, dermoid cyst and branchial cysts [3].

Diagnosis is usually established by imaging the neck veins. The various methods of imaging include Doppler ultrasonography, contrast enhanced Computed Topography (CT), Magnetic Resonance Venogram and multi detector CT angiogram. With the introduction of Multi Detector CT, it has become possible to render images with three dimensional reconstruction to clearly identify the complex anatomy .

Venous aneurysms can produce a number of potential complications such as thrombophlebitis, thrombus formation, spontaneous rupture and pulmonary embolism [5]. However, the reported rates of these complications from neck aneurysms are low. The decision to operate asymptomatic venous aneurysms is a matter of debate. It may be prudent to wait as the risk of complications is low. Nevertheless, cosmetic and psychological considerations as well as fear of enlargement, future misdiagnosis, or rupture are reasons frequently used to justify surgical excision approach. Surgical options include ligation of the ecstatic jugular vein or excision of the vein with reconstruction. Postoperative complications after ligation of the jugular vein in the neck includes edema of the head and neck, or , in rare cases, intracranial hypertension or craniofacial edema [6].

Figure 3: Intra operative image of the External Jugular vein aneurysm



CONCLUSION

Peripheral venous aneurysms are a rare occurrence and may cause serious thromboembolic complications. Surgical treatment may be indicated for all patients with symptomatic aneurysms due to the high risk of thromboembolic complications.

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