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Case Report: Left external jugular venous varix with thrombus presenting as neck mass

Roosewelt Simon[1*], Surendra Singh Moupachi[2]
[1, 2] Department of ENT, S.S. Medical College, Rewa, Madhya Pradesh, India

Abstract
External jugular venous varix with thrombosis presenting as neck swelling is a rare clinical entity and rarely encountered in routine clinical practice in otorhinolaryngology.
We present a case of 46 year old female with left external jugular venous varix presenting as left sided neck mass. Ultrasound and CECT Neck revealed aneurysm of external jugular vein with thrombus within it. Patient was managed conservatively.

Keywords: external jugular venous varix, neck mass, thrombus within varix

1. Introduction
Jugular phlebectasia is a rare condition presenting as dilatation of the jugular vein. It is most commonly seen in the internal jugular vein, followed by the external jugular, anterior jugular and then the superficial communicating veins. It usually presents on the right side and in children as an intermittent neck swelling which increases in size on coughing, straining, sneezing and Valsalva manoeuvre. External jugular phlebectasia is rarely seen, rarer still in adults and frequently misdiagnosed or managed inappropriately. It differs from varices, due to the lack of tortuosity and from aneurysms which are segmental, saccular and secondarily acquired. Differential diagnosis of this condition may include laryngocele, branchial cyst, or superior mediastinal cysts. The treatment is controversial however conservative treatment is preferred in asymptomatic masses and regular follow up is recommended. Surgery is advised in the presence of complications or for cosmetic reasons.

2. Case Report
A 46 year old female patient presented to the ENT department with complains of left sided neck swelling since 4 months. There was no history of previous trauma, cannulation, of the vein and infusion of fluid for extended period and there was no history of difficulty in swallowing, change in voice or any nasal symptoms.
Swelling was soft, fluctuant, non pulsatile, compressible, non tender, overlying the sternocleidomastoid muscle and non transilluminant (figure 1). It increases in size on coughing, straining, sneezing and on Valsalva maneuvere. No palpable thrill, no bruit heard over the swelling. Oropharyngeal and systemic including cardiovascular examination was normal.

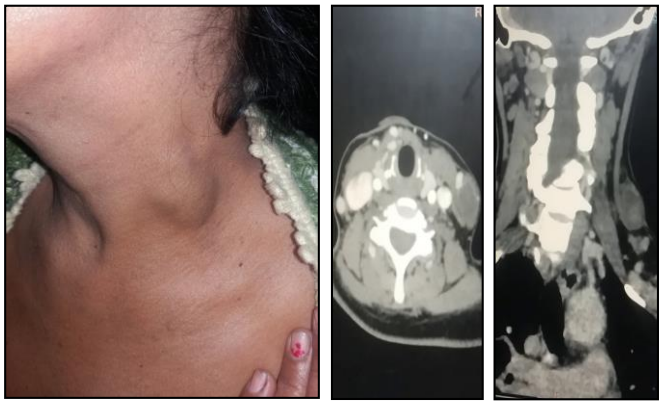

Fig 1

Ultrasound examination with colour Doppler revealed left external jugular venous varix. CECT neck revealed heterogenous enhancing lesion along left external jugular vein with partial invasion.
Patient was managed conservatively and asked for follow up if any symptoms appear.

3. Discussion
Venous aneurysms of the neck are rare due to low pressure in the vena cava system in the neck. The internal jugular vein is the most common vein involved [1], Aneurysm of the external jugular vein is rare and very few cases have been reported in the literature.
First described in the literature by Harris in 1928 [2]. Hischler suggested the term venous aneurysm similar to arterial aneurysm [3]. It can be congenital or acquired, common acquired causes of venous aneurysm include tumor, trauma, thoracic outlet syndrome, and iatrogenic causes. Patients with external jugular venous aneurysm usually present with a soft, nonpulsatile, saccular or fusiform swelling in the neck, which

increases in size on crying, straining, or with Valsalva maneuver. Few patients may complain of constricting sensation, choking, discoloration or discomfort in the neck.

Jugular venous aneurysms should be included in the differential diagnosis of any neck soft tissue mass when it can be easily confused with cavernous hemangioma, cystic hygroma, a laryngocele, a lymphocele, an enterogenous cyst, lymphadenopathy, thyroid swelling, a thyroglossal cyst, a dermoid cyst, and a branchial cleft cyst.2 Enlargement of neck swelling during the Valsalva maneuver raises the suspicion of a laryngocele or jugular vein aneurysm. Absence of air in the mass on plain radiography eliminates a laryngocele. The most important complications include thrombus formation, thrombophlebitis, pulmonary embolism, and rupture [4]. The pathogenesis of venous aneurysm remains unknown.

Endophlebosclerosis and endophlebohypertrophy are believed to be important factors in the development of venous aneurysm [5], Inflammation, degeneration, and increased venous pressure within the venous system could also lead to venous aneurysm [6]. CT angiography with Digital subtraction angiography is the gold standard in the diagnosis but venous colour Doppler ultrasound is a non-invasive, accurate, and low-cost method for evaluation of venous aneurysms and is considered as the first-line study in the diagnosis of cervical venous aneurysms [7-10]. Jugular venous aneurysm may lead to thrombus formation due to stagnant and low pressure flow within the neck veins. There is also the risk of rupture of aneurysm by trauma to the neck, though arterial aneurysms are more prone to rupture [10]. Surgical excision is the treatment of choice in the management of venous aneurysm of the neck for the fear of risk of thrombosis, possible fear of rupture, and for cosmetic and esthetical reasons [10]. Patient was managed conservatively and asked for follow up if any complications appear.

4. Conclusion

Jugular venous aneurysms are a rare differential diagnosis of neck masses. Thrombotic complications are the most frequent, CT angiography with Digital subtraction angiography is the gold standard in the diagnosis but venous color Doppler ultrasound study is also useful for the diagnosis of venous aneurysm and the treatment, when indicated, is surgical repair.

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