

Internal Jugular Vein Pseudoaneurysm Presenting as Lateral Neck Mass

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PRESENTATION OF CASE

A 71-year-old male patient who was admitted with sudden loss of consciousness followed by slurring of speech and weakness of left side of the body and swelling on left side of the neck with the previous history of cerebrovascular accident (infarct). Patient was a known case of diabetes mellitus and hypertension and atrial fibrillation.

On physical examination, he was found to have a pulsatile swelling of 3 x 1.8 cms in the left cervical region (fig 1). The swelling was soft, compressible non-tender non-erythematous and not associated with inflammatory changes on skin over the swelling.

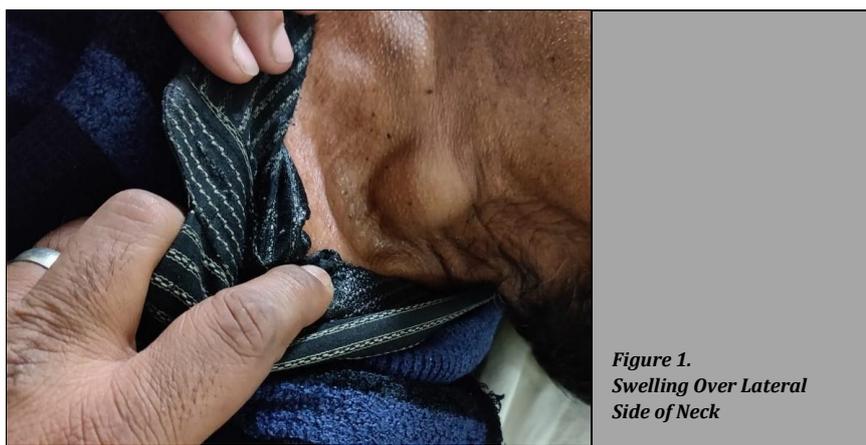


Figure 1.
Swelling Over Lateral Side of Neck

There is no past history of internal jugular vein cannulation or trauma. On examination in the supine position, the swelling was more pulsatile and in upright position, pulsatility decreased. A swelling on lateral side of neck can have a number of probable aetiologies, one of which is vascular diseases. Here we present a case of an individual with a jugular vein pseudoaneurysm associated with cardiac failure. The prominence of the pulsation of jugular vein pseudoaneurysm directly correlated with the severity of cardiac failure and the volume overload.

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DOI: 10.14260/jemds/2020/287

*Financial or Other Competing Interests:
None.*

How to Cite This Article:

Mohan D, Bhavna, Pooja, et al. Internal jugular vein pseudoaneurysm presenting as lateral neck mass. J. Evolution Med. Dent. Sci. 2020;9(15):1319-1321, DOI: 10.14260/jemds/2020/287

*Submission 14-02-2020,
Peer Review 24-03-2020,
Acceptance 01-04-2020,
Published 13-04-2020.*



DIFFERENTIAL DIAGNOSIS

Branchial cyst, cystic hygroma, laryngocele, lymphangioma, lymphoma, tubercular lymphadenitis, inflammatory swellings.

RADIOLOGICAL DISCUSSION

The transthoracic echocardiogram reveals ejection fraction of 58%, dilated left atrium (4 cms), mild concentric left ventricle hypertrophy, grade 2 left ventricle diastolic dysfunction, mild tricuspid regurgitation, and mild pulmonary artery hypertension.

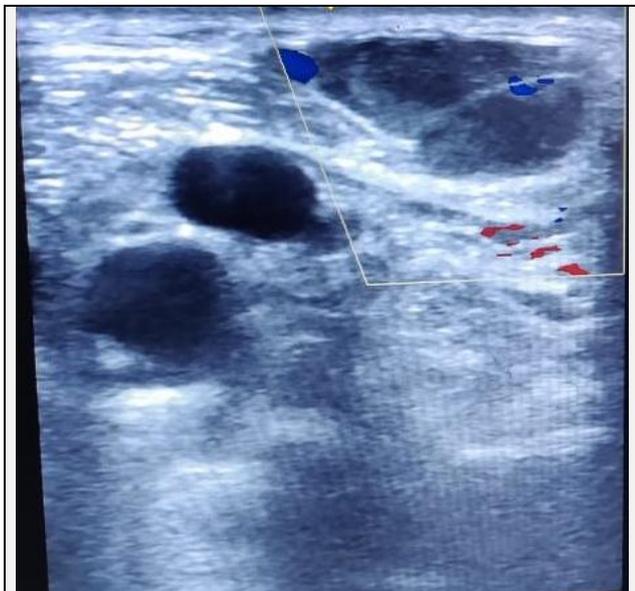


Figure 2. Ultrasonographic Finding of Pseudoaneurysm

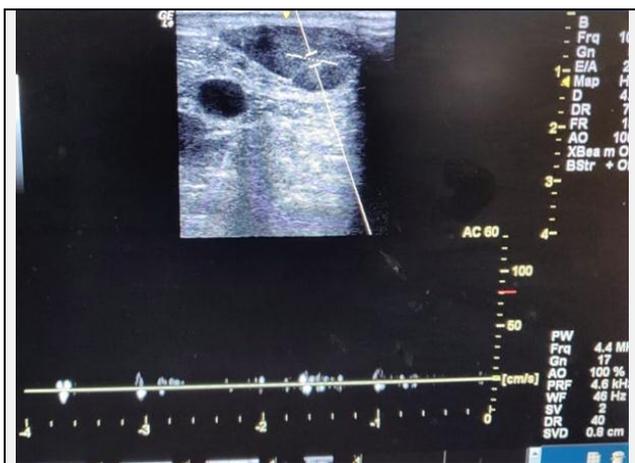


Figure 3. Ultrasonographic Finding of Pseudoaneurysm

DISCUSSION

The differential diagnosis of lateral neck mass is of wide range and includes congenital abnormalities, traumatic lesions, neoplasms and infections.⁽¹⁾

Detailed history and physical examination help in deciding the aetiology of a neck swelling with imaging investigation. Pulsatile neck swelling should direct towards the suspicion of

vascular anomaly, on palpation of swelling if it appears as soft and compressible area a venous anomaly can be considered. If on examination it appears as vascular lesion ultrasonography can be used to confirm the diagnosis.

Both true and pseudoaneurysm are very rare clinical entities. Even if they are rare, these conditions may arise by any kind of intervention be it central venous catheter or due to previous neck injury by trauma.⁽²⁾ IN patients with no history of trauma, congenital weakness and vessel wall inflammation can be a possible cause.^(3,4) Tricuspid regurgitation and high central venous pressure with associated venous valve incompetence may cause pseudoaneurysm to manifest as it filled with a flood.

This patient's vascular lesion appears to be pseudoaneurysm rather than a true aneurysm as the integrity of the underlying vessel wall was intact with exception of narrow communication between vessel lumen and surrounding tissue containing the lesion. A True aneurysm involve dilation of all three layers of vessel wall without any communication with surrounding tissue.⁽⁵⁾

Complications of jugular vein aneurysms are thromboembolism and rupture both of which are rare.⁽⁶⁾ These lesions do not require anticoagulation or any surgical intervention until unless there is a cosmetic concern.⁽⁷⁾ Venous aneurysms of lower limbs, however usually present with recurrent thromboembolic episodes despite repeated anticoagulant therapies and hence should be surgically removed.^(7,8)

Learning point: an internal jugular vein aneurysm or a pseudoaneurysm should be considered as a differential in pulsatile lateral neck mass. The size of mass can vary with underlying hemodynamic condition and regurgitation.

FINAL DIAGNOSIS

Internal jugular vein pseudoaneurysm presenting as lateral neck swelling.

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