

An Extremely Rare Case of Lipoma within Carotid Sheath

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Background

The most frequent benign mesenchymal tumours are lipomas, which can develop anywhere that normally has fat. Only 13% of all lipomas are detected in the head and neck region, and they are most frequently seen in the subcutaneous area of the posterior part of the neck. The sternocleidomastoid muscle, the superficial and deep lobes of the parotid gland, the oral cavity, intracranial lipomas, and other locations have also been documented in conjunction with them.

Case Report

A 64-year-old male came with a soft, slowly progressive, non-tender, compressible swelling with ill defined borders involving the left upper part of the neck for last one year.

There was no history of pain/ discharge/dysphagia.



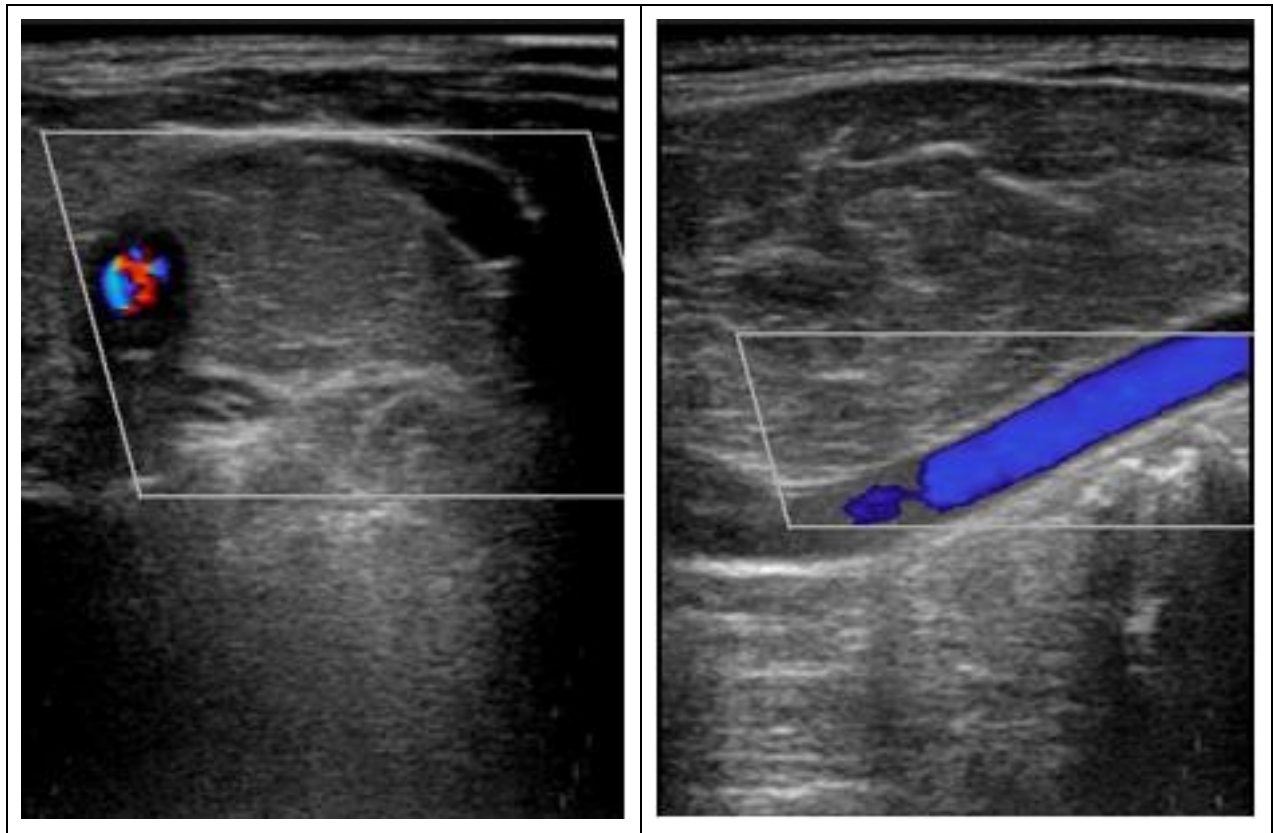
Ultrasound

Shows a well defined ovoid, encapsulated hyperechoic mass lesion with multiple internal linear strands within it with no evidence of acoustic shadowing.

The lesion was compressible.

Common carotid artery and the internal jugular vein can be seen adjacent to lesion.

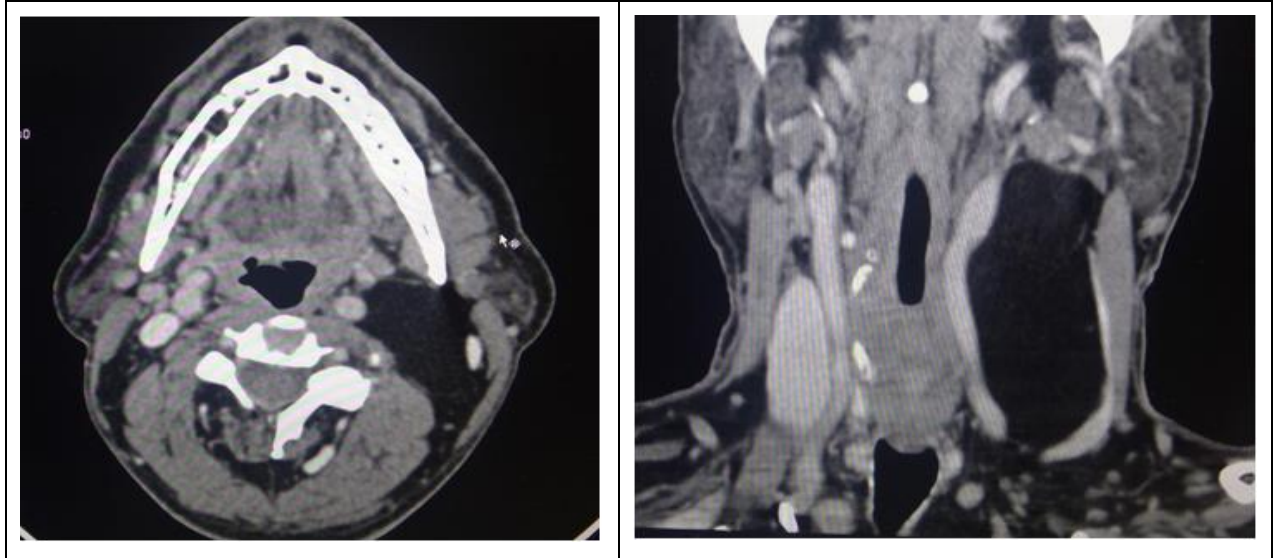
There was no evidence of any calcification or cystic changes within the lesion.



CT Imaging

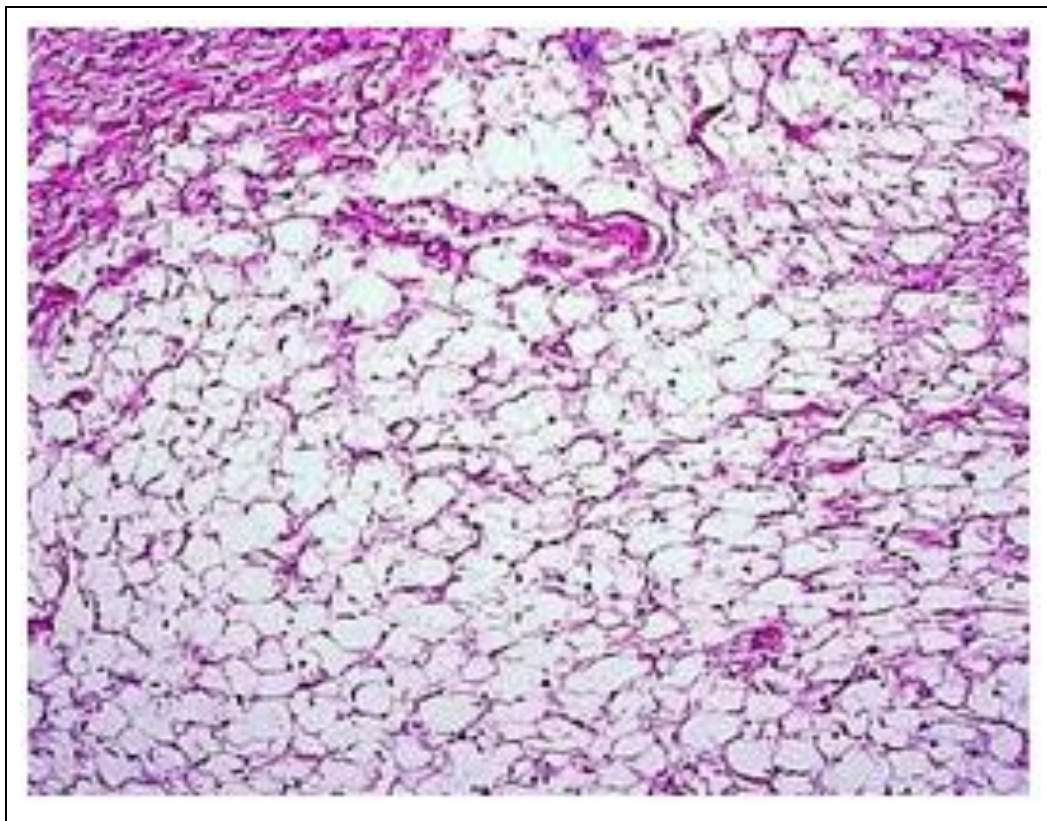
Showed a large, well circumscribed, homogeneously hypodense, non enhancing, soft tissue density mass lesion with CT value of fat having maintained fat planes with all the adjacent structures s/o lipoma mainly involving the left carotid space of the suprahyoid and infrahyoid regions on left side of neck.

The lesion was causing anteromedial displacement of the common carotid and internal carotid arteries and lateral displacement of left internal jugular vein indicating its origin from within the carotid sheath.



Histopathology

The lesion was excised after incising the carotid sheath. Shows multiple mature adipocytes separated by loose fibrovascular stroma, suggestive of a lipoma



Discussion

Despite having a histological similarity to mature adipose tissue, benign mesenchymal tumours known as lipomas can be distinguished from simple fat aggregations by the presence of a fibrous capsule.

The only lipomas from a vascular sheath that have been reported thus far are from a child's carotid sheath and an adult's femoral sheath.

Probably we are describing the first case of a carotid sheath lipoma in an adult.

Hence, the rarity of the anatomical site, makes this case worthy of description.

In case of a suspicion of neck lipoma, ultrasonography is an initial imaging investigation. For a more thorough evaluation, computed tomography (CT) or MRI are beneficial. Ultrasonography is quick, straightforward, and less expensive than CT and MRI but the soft tissue characterisation in ultrasonography is comparatively less precise.

On ultrasonography, lipomas are iso to hyperechoic well defined lesions with multiple internal linear strands within them and no significant vascularity within.

On CT, lipomas have typical characteristics of well defined homogeneously hypodense (with CT value of fat) mass with no contrast enhancement having maintained fat planes with all the adjacent structures.

MRI can also diagnose lipomas. They appear hyperintense on both T1 and T2. MRI clearly distinguishes a lipoma from the surrounding adipose tissue by defining the lipoma's perimeter as a black rim.

Most lipomas can be easily separated from the surrounding tissues and are well-encapsulated.

In 5% of cases, they recur locally. These tumours are entirely benign histologically, although few of them can exhibit local infiltrative and invasive tendencies.

Regular follow-up is recommended.

Conclusion

Lipoma within carotid sheath are extremely rare in any age group and the rarity of the anatomical site, makes this case worthy of description.

Literature Review

- Until now, the only lipomas reported from a vascular sheaths has been from the femoral sheath in an adult and carotid sheath in a child. (Reference: Thomas P. femoral sheath lipoma causing venous obstruction syndrome. Ann Royal College of surgeons of England 2010).
- Carotid sheath lipomas are extremely rare in any age group and the first case of carotid sheath lipoma was reported in 2013 in a 7yr old male child. (Reference: S Parelkar Ann Royal College of surgeons of England – carotid sheath lipoma- first case report in English literature - Pubmed).
- On reviewing English literature with these key words: “lipoma, carotid sheath, adult” we could not find any case report on pubmed of carotid sheath lipoma in an adult.
- So, probably we are reporting the first case of carotid sheath lipoma in an adult.