

Giant Lipoma of the Neck: A Case Report and Review of the Literature

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Abstract:

Lipoma is one of the most common, subcutaneous, benign, slow-growing tumours of adipose tissue origin. Lipomas are usually small, the size varies from few mm to about 5cm with an average size of 3cm. However, when a lipoma grows to a size of atleast 10 cm in one dimension or weighs a minimum of about 1000 gms, it is referred to as a giant lipoma. Giant lipomas are rare accounting for only about 1% of all lipomas. We report a rare case of giant lipoma of the neck imaged on computed tomography with review of the literature.

A 45 year old man presented with 5 years history of left side neck swelling. The onset was gradual and progressively increasing in size. It was initially symptomless but for the past 1 year he started having tingling sensation of the left side of the neck. There is also occasional numbness extending to the left upper limb. The computed tomogram of the neck showed a hypodense (HU = -109) mass demonstrated in the left paraspinal space of the neck. It measures about 148 x 97 x 59 mm in its widest craniocaudal, antero-posterior and transverse dimensions respectively (fig, 1 and 2). It shows well outline margin and thin internal septae. There is some enhancement of the septae and the margin of the mass in the post contrast series. No intrathoracic extension is demonstrated. No lymphadenopathy is demonstrated. A diagnosis of giant left side neck (paraspinal space) lipoma was made.

Key words: giant lipoma; neck; computed tomography

Introduction

Lipoma is one of the most common, subcutaneous, benign, slow-growing tumours of adipose tissue origin [1]. It has an incidence of about 10% of all mesenchymal neoplasms [2]. They can be solitary or multiple and can be found in almost all part of the body where fat normally exists, however, it rarely occurs in the neck [3,4]. They are slow growing and freely mobile [1,4]. Lipomas are usually small, the size varies from few mm to about 5cm with an average size of 3cm [4]. However, when a lipoma grows to a size of atleast 10 cm in one dimension or weighs a minimum of about 1000 g, it is referred to as a giant lipoma. Giant lipomas are rare accounting for only about 1% of all lipomas [3,4].

We report a rare case of giant lipoma of the neck imaged on computed tomography with review of the literature.

Case Report

A 45 year old man presented with 5 years history of left side neck swelling. The onset was gradual and progressively increasing in size. It was initially symptomless but for the past 1 year he started having tingling sensation of the left side of the neck. There is also occasional numbness extending to the left upper limb. No headache or weakness of the limb. No history of dyspnea, dysphagia, cough or chest pain. No swelling in other part of the body. No history of similar swelling in the family and he is not on any medication currently. Not a known hypertensive or diabetic patient.

On examination, the patient was calm, not in any obvious painful or respiratory distress. He was not pale or icteric. The vital signs were normal. There was a mass in the left side of the neck that extends from the region of the mastoid to the root of the neck. The mass is soft, mobile and non tender. Not attach to the overlying skin. No ulceration over the

mass. The power and sensation in the upper limbs were normal. Other systemic examinations were unremarkable. Ultrasonography of the neck reported the mass as lipoma. However, could not assess the lower extend of the mass.

The computed tomogram of the neck showed a hypodense (HU = -109) mass demonstrated in the left paraspinal space of the neck extending from the level of C2 to T1 vertebrae and from posterior to anterior aspect of the neck. It measures about 148 x 97 x 59 mm in its widest craniocaudal, antero-posterior and transverse dimensions respectively (figure, 1 and 2).

It shows well outline margin and thin internal septae. There is some enhancement of the septae and the margin of the mass in the post contrast series. No calcification was demonstrated within the mass. There is displacing the adjacent muscles. Anterior displacement of the internal jugular vein and common carotid artery was noted. No intrathoracic extension is demonstrated. No lymphadenopathy is demonstrated. A diagnosis of giant left side neck (paraspinal space) lipoma was made.

The patient had surgical excision and the post operative and follow-up periods were uneventful.

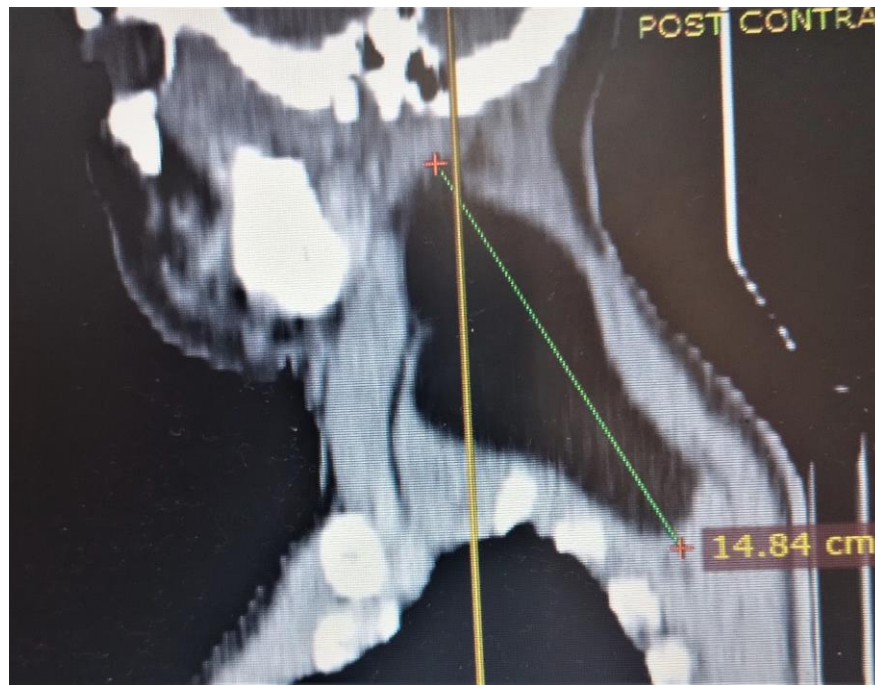


Figure 1: Computed tomogram of the neck sagittal plane showing a giant fat density mass (lipoma) deep in the posterior aspect of the neck (arrow)

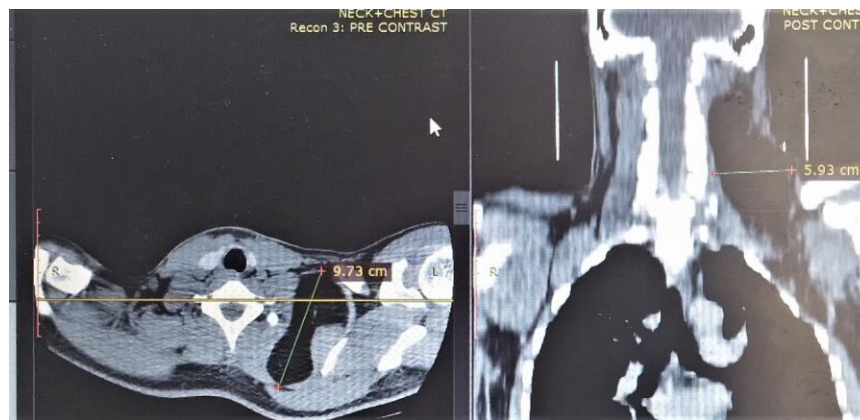


Figure 2: Computed tomogram of the neck axial and coronal planes showing a fat density mass (lipoma) deep in the left side of the neck. Note the antero-posterior extension in the axial plane (arrow).

Discussion

The benign lipomas are the most common of all mesenchymal tumours [2]. They may be located in all parts of the body and may be classified anatomically as superficial or deep [2]. Most of the head and neck lipomas are superficial and are found in the posterior region of the neck. Deep neck lipomas are rare [2]. The index case is a deep lipoma located predominantly in the posterior aspect of the neck and extends to the anterior region (figure. 2). A Giant lipoma is when a lipoma grows to a size of at least 10 cm in one dimension or weighs a minimum of about

1000 g as demonstrated in this case (figure 1). Lipomas may occur sporadically or as part of an inherited disease such as familial multiple lipomatosis [5]. They may also occur secondary to trauma with rupture of the fibrous septae inducing adipose tissue migration and proliferation [5].

Presentation is usually as a painless swelling. Other presentations depend on the site and size of the lesion and on local pressure effects [3,6]. Patients with giant lipomas may experience mechanical dysfunction, pain or altered sensation resulting from compression of neighbouring structures [5].

Imaging plays vital role in evaluation of lipoma. Diagnostic imaging employed, include ultrasonography, plain radiography, computed tomography (CT) scan or magnetic resonance imaging (MRI). The cross sectional imaging (CT and MRI) though not readily available has the advantage of assessing the exact location, size and relationship with surrounding structure. [1,2]. They can also help in differentiating benign lipomas from malignant lipomas. On imaging lipomas are well-defined mass of mature fat (adipocytes) and appears as radiolucent on radiographs, low attenuation on CT with Hounsfield Unit (HU) of -65 to -120 (fig, 1 and 2) and hyperintense on T1-weighted MRI. Fine septations can be seen on both CT and MRI. Features that suggest malignancy include thick capsule, ill-defined border, thick or nodular septations, prominent areas of high T2 signal on MRI and prominent areas of enhancement in the post contrast phase [1,2].

The primary treatment options for benign lipoma are open surgery and liposuction. Suction - assisted lipectomy through small incisions is preferred by some surgeons due to a superior aesthetic outcome and decreased morbidity when compared to open surgery [5,6,7].

Conclusion

Giant lipoma of the neck is a rare benign lesion that usually present with compressive symptoms in the neck and upper limb. Evaluation with CT and MRI can help in differentiating benign from malignant lesion.

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