

A huge intramuscular lipoma of occipito cervical region — A case report

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Introduction

The incidence of lipoma in cervical region is quite common but mostly they are of small size and remain asymptomatic for years. They may arise in all parts of body but their occurrence in the head and neck, however, is relatively rare¹. Location at the limbs is the more frequent, with 50% of cases located in thigh, 20% in the shoulder region and upper arm, 20% in the chest wall, and 10% in other locations. This type of lipoma is extremely rare in the head and neck region, and its congenital type is rare²⁻⁴. Two cases of oral infiltrating lipoma were reported by Bennhoff and Wood⁵. This case report describes a huge lipoma present in the occipito cervical region of an eighteen year old boy since childhood.

Case Report

An eighteen-year-old male presented with a big swelling in posterior aspect of his head and neck. The size of the swelling was exceptionally large and it was bigger than the size of patient's head and neck together. It was present since his childhood and kept on increasing in size as the boy grew up gradually. Till eighteen years of age the patient was asymptomatic except the huge size of the swelling. Later he developed pain in the head and neck region and because of this big mass he was not able to walk and stand comfortably and could not sleep in supine position and had to lie down in lateral position only. The size of swelling was measuring about 12 inches x 12.5 inches. On the surface of swelling, the skin was shiny, tense, and with large diameter veins running over it. It was non-tender and consistency was uniform all over.

Hematological investigations were normal and X-ray cervical spine showed no bony involvement by the growth. MR study showed a huge well defined mass (approx. size 22 cm x 24 cm x 16 cm) in the posterior neck region extending from high left occipital region to either side of midline to

infratemporal region, more on left side upto the lower neck region. It was showing fat signal intensity on T₁ wt with low signal intensity linear shadows, which may represent fibrous septae and few, flow voids. It was displacing posterior paraspinal neck muscles, more on left side with deep insinuation into deep muscle planes at places. No extension of the mass was seen into the spinal canal; however its slips were seen extending into left neural foramina at C₄ – C₇ level. No intracranial extension was seen. However mass was causing pulling of the soft tissue in left facio temporal region due to its bulk. No obvious evidence of bony destruction was seen. The brachial plexus regions appeared to be spared. Major neck vessels (carotid artery & veins) were normally seen in the anterior part of the neck and are separate from the mass.

A 'T' shaped incision was given and a bright yellow fatty tissue mass was visible lying in between the muscle planes, displacing the posterior paraspinal neck muscles, whole tumour was well encapsulated with its multiple lobulated extensions going in the muscle planes. The whole tumour mass was separated from surrounding tissues & was delivered as a whole. Adequate haemostasis was achieved and, the dead space was closed beneath the skin using buried interrupted vicryl sutures. A suction drain was placed and the skin was then closed with interrupted Nylon sutures. A pressure dressing applied to reduce the incidence of haematoma formation. Specimen was submitted for histologic analysis. Three units of blood were transfused and patient was kept in ICU for one day.

Post operatively patient was comfortable and a splint to support the neck was given. The weight of the tumour was



Fig. 1. (a,b) Clinical photograph showing huge swelling in neck

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5.5 kg. The patient became ambulatory next day and suction drain was removed after forty-eight hours. It was about after ten years that the patient was able to sleep in a comfortable supine position. Histopathology sections showed striated muscle bundles enclosing a lesion comprising of sheets and lobules of mature adipose cells. There was no evidence of malignancy with a final impression of intramuscular lipoma.

After removal of the tumor, he was able to sleep and move properly and all this was possible after a long time of suffering both physical social & psychological. The 15 months follow up studies revealed no recurrence.

Discussion

Lipomas are adipose tumors that are often located in the subcutaneous tissues of the head, neck, shoulders, and back. Approximately 25% of lipomas and their variants arise in the head and neck region¹, most commonly in the subcutaneous posterior neck⁶. They also develop rarely in the anterior neck, infratemporal fossa, in or around the oral cavity^{7,8}, larynx^{9,10}, tonsillar area¹¹, parotid area¹², hypopharynx¹³, nasopharynx¹⁴, and retropharyngeal space¹⁵. These tumors may also be found in deeper tissues such as intramuscular septa, the abdominal organs, the oral cavity, the internal auditory canal, the cerebellopontine angle and the thorax. Lipomas have been identified in all age groups but usually first appear between 40 and 60 years of age. Congenital lipomas have been observed in children. These slow growing, nearly always benign tumors, usually present as nonpainful round, mobile masses with a characteristic soft, doughy feel. Most lipomas tend to grow insidiously large without any symptoms and cause few problems other than those of a localized mass and cosmetic concerns^{7,15}. Rarely, lipomas can be associated with syndromes such as hereditary multiple lipomatosis, adiposis dolorosa, Gardner's syndrome, and Madelung's disease. Some tissue lipomas are believed to have developed following blunt trauma.

While solitary lipomas are more common in women, multiple tumors (referred to as lipomatosis) are more common in men, Hereditary multiple lipomatosis, an autosomal dominant condition also found most frequently in men, is characterized by widespread symmetric lipomas appearing most often over the extremities and trunk. Lipomatosis may also be associated with Gardner's syndrome. An autosomal dominant condition involving internal polyposis and cysts, and, the term Madelung's disease, or benign symmetric lipomatosis, refers to lipomatosis of the head, neck, shoulders, and proximal upper extremities. Persons with

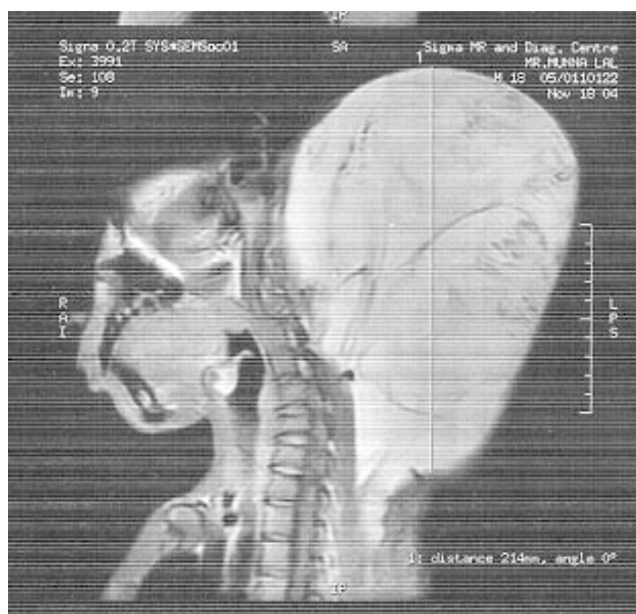


Fig. 2. MRI showing extent of tumour.

Madelung's disease, often men who consume alcohol, may present with the characteristic 'horse collar' cervical appearance. Rarely, these patients experience swallowing difficulties, respiratory obstruction, and even sudden death.

Microscopically, lipomas are composed of mature adipocytes arranged in lobules, many of which are surrounded by a fibrous capsule. Four other types of lipomas may be noted on biopsy specimen like angiolipomas, pleomorphic lipomas, spindle cell lipomas and adenolipoma. Two main varieties of deep seated infiltrating lipomatous lesions have been described ; lipoma (the present case) and angiolipoma is characterized by prominent vascular components, whereas infiltrating lipoma is composed of mature adipose cells, inconspicuous blood vessels, and delicate strands of connective tissue^{2,16}.

MR imaging provides better tumour delineation because it has superior soft tissue contrast resolution and clear definition of the location and longitudinal extent of the mass. Multiplanar capability moreover, clearly shows planes of cleavage between the lipoma, muscle and vessels. It is particularly important in the oral facial region where the margins of lipoma are commonly ill defined, because these lesions often are surrounded by normal fat tissue and have a very thin capsule⁷. IV administration of contrast medium better depicts the tumor margins and can detect irregular vascularization when sarcomatous degeneration is considered^{7,17}.

Malignancy is rare but can be found in a lesion with the clinical appearance of a lipoma. Liposarcoma presents in a fashion similar to that of a lipoma and appears to be more common in the retroperitoneum, and on the shoulders and lower extremities.

Most lipomas are best left alone, but rapidly growing or painful lipomas can be treated with a variety of procedures ranging from steroid injection to excision of the tumor. In cases of infiltrating lipomas, complete surgical excision is mandatory because of the infiltrative nature and potentially high rate of recurrence after inadequate surgery².

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