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Case report of submandibular space lipoma

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Abstract :
Lipomas in the submandibular space are relatively rare. The present report describes a case of submandibular space lipoma in a 45 year old Indian male with clinical features and classical imaging and histopathological features.

Key Words : Lipomas, submandibular space, HRUS (high resolution ultrasonography), computed tomography (CT), magnetic resonance imaging (MRI).

Introduction :

Lipomas are common slow growing, benign, encapsulated tumour of fatty tissues with low incidence in the oral cavity[1]. Conventionally lipomas are divided into three types : 1.Superficial lipomas (arising within the subcutaneous tissue) 2.deep lipomas (arising within the deep soft tissue) and 3.paraosteal lipomas (arising within the surface of the bone) [2]

Reported incidence of head and neck lipoma is around 13%. Oral lipoma commonly involve the buccal mucosa, floor of the mouth, tongue and lips.[3]

Lipomas can have histological variants depending upon the mesenchymal contents like angiolipomas (blood vessels), intramuscular lipomas (muscle fibers), fibrolipomas (fibrous tissues), osseous lipomas (bony tissues). Lipomas can be detected clinically but imaging in lipoma is strongly recommended to know the extent and to detect variants of lipoma and early detection of sarcomatous changes. Rarity of lipomas in the submandibular region prompted us to report the case and further emphasize on newer modalities for definitive pre-operative delineation of lipomas so that complete excision of lipoma with capsule is achieved by the surgeon to prevent the possibility of recurrence.

Case Report:

A 35 years old male patient presented with a two year old history of painless slow growing, left submandibular swelling . To palpate, the swelling was soft, smooth with well defined borders and non tender. The patient underwent high resolution ultrasonographic examination which revealed well encapsulated iso to hyperechoic mass with linear striation in the left submandibular region which was displacing the submandibular gland (Fig-1). MDCT of neck revealed a well encapsulated fat density lesion with mean Hounsfield units of -130 HU in the left submandibular region which was consistent with lipoma (Fig-2). No concerns of any sarcomatous changes were evident on imaging. For completion sake T1W on fat sat and T1 fat sat images were performed and the findings were consistant with computed tomographic findings of lipoma. Lipoma was surgically excised and sent for histopathological examination which revealed typical features of lipoma. No variants of lipoma or sarcomatous changes were noted on histopathological examination.

Fig 1: High resolution sonography of neck showing well encapsulated iso to hyperechoic mass with linear striations in left submandibular region.

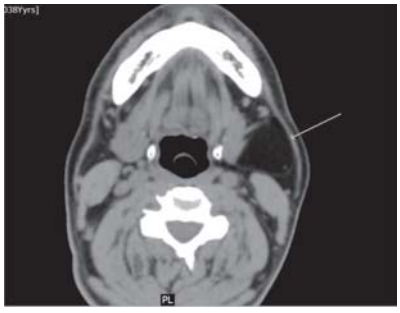

Fig 2: Axial CT scan of the neck shows a fat attenuating mass in the left submandibular region with a mean HU of around -130.

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Discussion:

Submandibular lipoma or sialolipoma was described by Nagao et al[4]. Grossly lipomas are characterized as ,well encapsulated soft slowly growing freely mobile mass having yellow hue depending on depth of localization and degree of fibrosis[5.] Although lipomas are relatively uncommon in the head and neck region, they should be considered as one of the differential diagnosis of neck masses. Common location for the head and neck lipoma is the posterior triangle of the neck[1]. To facilitate the diagnosis of lipoma specific imaging such as ultrasound, computed tomography and magnetic resonance imaging should be performed. According to Ahuja et al the characteristic sonographic features of head and neck lipoma is that of an elliptical mass parallel to skin surface that is hyperechoic relative to adjacent to muscle[6]. Computed tomography is virtually diagnostic for fat containing masses which shows fat density ranging from -50 to -150 hounsfield units with well or ill defined margins and with MR it is possible to confirm the diagnosis by visualised fat equivalent signal intensities on T1 and T2 W images[7] (hyperintense on T1WI and Iso to hyperintense on T2WI) which is further confirmed by fat sat images which show signal drop out of fat containing lesions. Lipomas are slow growing mesenchymal tumours which have the potentials of recurrence if incompletely excised and a very remote chance for malignancy. Most lipomas can be freed from the surrounding tissues without difficulty, but because of fibrous nature of the capsule its extraction becomes difficult**, t**his may result in an inadequate resection, possibly leading to recurrence[8]. Al-basti and El-Khatib reported the treatment of moderate (>4-10cm) and large(>10cm) lipomas with liposuction-assisted surgical extraction of the capsule via the same wound(1cm in length)[8]. The capsule extraction was aimed at avoiding recurrence and evaluating the histopathological nature of these swellings. Hence all head neck lipomas should be aimed at extraction of lesions with intact capsule to avoid recurrence. Diagnosis of lipomas should never be limited to clinical examination because nature and exact location of the mass cannot be assessed on clinical examination alone. Specific imaging modalities such as ultrasound CT and MRI with histological confirmation is mandatory to detect variants of lipomas and early detection of sarcomatous changes.

References:

1. Sathyaki D, Swarup RJ, Mohan M, Varghese R. Lipoma of the submandibular space. J Oral Maxillofac Pathol. 2014 Jan; 18(1):149.
2. Pusiol T, Franceschetti I, Scialpi M, Piscioli I. Oncocytic sialolipoma of the submandibular gland with sebaceous differentiation: A new pathological entity. Indian J Pathol Microbiol. 2009;52:379–82.
3. Fregnani ER,Pire FR,Falzoni R,LopesMA,VargasPA:Lipomas of the oral cavity:clinical findings,histological classification and proliferative activity of 46 cases.Int J Oral Maxillofac Surg2003;32:49-53.
4. Nagao T, Sugano I, Ishida Y, Asoh A, Munakata S, Yamazaki K, et al. Sialolipoma: A report of seven cases of a new variant of salivary gland lipoma. Histopathology. 2001;38:30–6.
5. Greer R, Richarson J: The nature of lipomas and their significance in the oralcavity. Oral Surg 1973; 36: 551-57.
6. Ahuja AT, King AD, Kew J, King W, Metreweli C: Head and neck lipomas: sonographic appearance. AJNR Am J Neuroradiol 1998;19:505-8.
7. Hohlweg-Majert B, Metzger MC,Dueker J, Schupp W, Schulze D:Salivary gland lipomas: Ultrasonographic and magnetic resonance imaging. J Craniofac Surg 2007;18:1464-66.
8. Al-basti HA, El-Khatib HA: The use of suction assisted surgical extraction of moderate and large lipomas: long term follow-up. Anesthetic Plast Surg2002;26:114-17.

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