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Lipoma in Uncommon Locations (Parotid & Palm) – Case Reports

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Abstract: *Lipoma is the commonest tumor of the subcutaneous tissue. They are mostly seen in neck, shoulder and back. It may occur anywhere on the body where ever the fat tissue is present and hence also known as 'universal tumor'. Though they occur commonly in sub-cutaneous planes, lipoma may also develop in other places like intermuscular, subfascial, subserous, submucous, intra-glandular, sole, palm..etc. Hence it is important to not to rule out lipoma at any location. Here we present a series of 2 cases in which lipoma is seen in uncommon locations encountered at our hospital over past 2 years.*

Keywords: *Lipoma, parotid, uncommon location, universal tumor,*

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I. Introduction:

Lipoma is defined as a cluster of fat cells which become over active and so distended with the fat that it produces a palpable swelling. Lipoma is more common in obese individuals and occur mostly in 5th to 7th decade of life. They are the most common tumors of the body [1,2]. However they can occur any where in the body and hence termed as universal tumor. They are very rare in children. Multiple etiological factors have been proposed to cause lipomas which include genetic, traumatic and metabolic causes.[3,4,5]However exact mechanism of lipomas remain uncertain, gene rearrangements of chromosome 12 has been established in cases of solitary lipomas, as has an abnormality in the HMGA2-LPP fusion gene. Lipomas are broadly classified into 3 main types – encapsulated subcutaneous lipoma, diffuse variety and multiple lipomas. They do not have tendency to become malignant, however it is very important to differentiate them from the liposarcomas. Treatment for lipoma is surgical excision and biopsy of the specimen.

II. Case report :

1. Lipoma on palm A 40 year old male presented with complaints of a slow growing swelling at the base of right index finger. On examination the swelling is soft in consistency and not fixed to to underlying structure. No skin changes or discharge associated with the swelling. No history of trauma associated with the swelling. A provisional diagnosis of lipoma was made and excision & biopsy was done. HPE confirmed our diagnosis as lipoma and would healing was healthy.


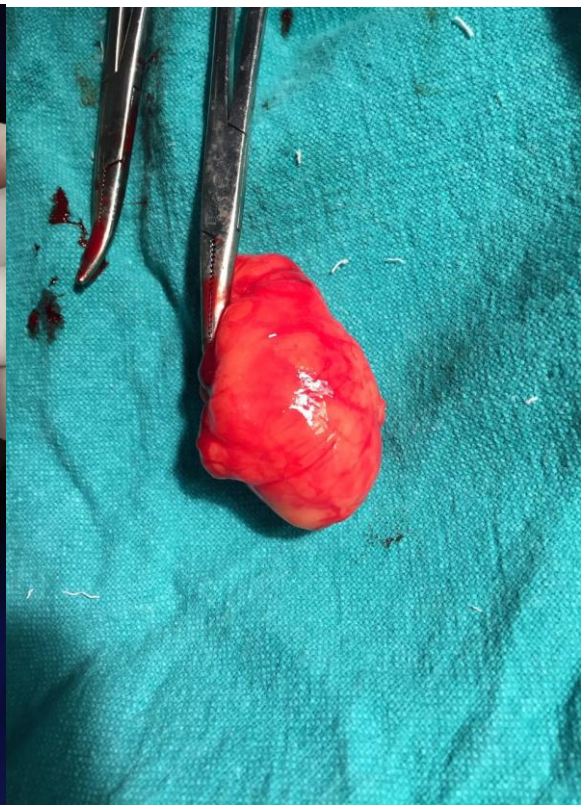

Fig 1 & 2 : Intra-operative picture of lipoma over palm

2. **Parotid lipoma** A 32 year old female presented with a painless slowly growing swelling over right parotid region since 6 months. On examination, swelling is not fixed to underlying structures and is in subcutaneous plane. USG and FNAC suggested a lipoma. Excision and biopsy done, HPE of specimen confirmed our diagnosis.

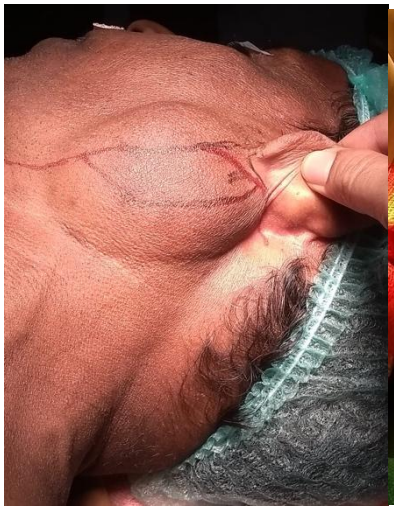
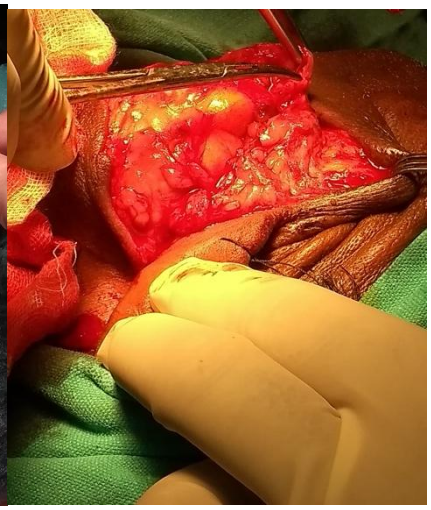

Fig 3 – Pre-operative picture **Fig 4 – Intra-op picture**

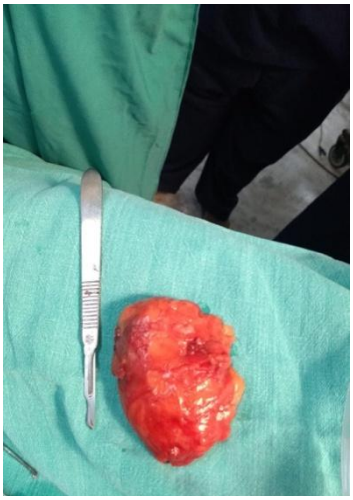

Fig 5 – Excised specimen

III. Discussion:

Lipomas are benign mesenchymal neoplasms occurring in areas of abundant fat tissue. They consist of mature adipocytes. Lipomas are mostly seen in the back of neck, shoulder and back. But they can occur practically anywhere in the body, hence they are often described as 'universal tumor'. Though subcutaneous lipoma is the commonest variety, lipoma may also occur in other places e.g. intermsucular, subfascial, parosteal, subserous, submucous (G.I. tract), intra articular, sub synovial, sub dural, extradural (spine), Oral cavity, perineum, spleen, parotid glands etc.

Etiology of lipoma is uncertain and not clear. Multiple causative factors have been proposed including genetic, traumatic and metabolic causes. Although many genetic propositions have been attributed lipomas are most commonly associated with translocations and rearrangements of the 12q13 q15 chromosomal region.[6]. They can also be a part of other syndromes, especially multiple lipomatosis which is a part of rare congenital syndromes like Cowden's Syndrome, Bannayan-Zonana Syndrome and Proteus Syndrome.[7,8,9] Lipoma has been proposed to be associated with trauma, it has been proposed that growth factors, cytokines, and other inflammatory mediators released following blunt trauma to soft tissue induced preadipocyte differentiation into mature adipocytes and formed a clinically apparent mass.[10] Lipoma is also associated with various pathophysiological processes like Diabetes, hyperlipidaemia, mitochondrial dysfunction and endocrinopathies such as nodular goitre, multiple endocrine neoplasia type 1 and Cushing's syndrome.[11,12,13]

There are broadly 3 varieties of lipoma – 1. Encapsulated variety ; 2. Diffuse Variety and 3. Multiple lipomas. Of these encapsulated variety is the commonest variety and is a painless, slowly growing and soft swelling. Diffuse variety is quite rare and it doesn't possess typical features of lipoma, hence called as 'PsuedoLipoma'. Multiple lipomas, often called as lipomatosis are mostly seen in limbs or on the back, it can be associated with other symptoms or can present by itself. Dercums disease is a multiple lipomatosis occurring mainly in the trunk and is more common in females. Histological subtypes include fibro-lipoma, spindle cell lipoma, infiltrating lipoma, angiolipoma, myxoid lipoma, atypical lipoma, and pleomorphic lipoma.[14] Histologically lipomas consist of mature adipocytes with uniform nuclei and scanty connective tissue; fibro-lipomas, however, consist of fat cells interspersed in broad bands of dense connective tissue.[15]

Lipomas are commonly diagnosed clinically by its location, consistency, plane of the swelling, fluctuation test and by the characteristic slip sign test. Whenever an accurate diagnosis of lipoma cannot be made, it is necessary to help of imaging modalities. On plain X-ray radiography lipoma shows a characteristic radio-lucent pattern which is referred to as 'water-clear density'. Ultrasonography shows a homogenous, hyper-echoic area. Both CT and MRI are reliable in localising the lipoma especially if it is deep seated or visceral. CT and MRI are also helpful in planning a precise operative plan as it shows exact extent and location.[16] MRI is preferable as it is highly sensitive and specific.[17] However because of cost effectiveness, Ultrasonography is preferred if there is no suspicion of malignancy is low.[18] Fine needle aspiration cytology is also done routinely in case of any suspicion.

Majority of the lipomas are asymptomatic and produce symptoms only because of their pressure effect or if they become too large. Surgical excision is the main stay of treatment followed by Histo-patholigical examination. Surgical excision is indicated if the lipoma is associated with pain, interference with normal functions, compression symptoms, suspicious of malignancy and cosmetic concern. Alternative methods of tumour removal such as liposuction[19]–and endoscopic -assisted excision[20]–aim to minimize scarring. In

addition, mesotherapy or intralesional phosphatidylcholine-and deoxycholate-injections have been used to shrink small lipomas.[21] However, surgical resection or observation without intervention remain the standard of care.

IV. Conclusion :

Even though lipomas are very commonly encountered soft tissue tumour of the body and commonly occur in neck, shoulder and back. They can practically occur anywhere on the body. Hence in case of any suspicion it is always necessary to arrive at an accurate diagnosis with appropriate imaging modalities which helps in planning an ideal operative procedure. In this case series, we highlight the 'universal nature' of lipoma in human body.

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