ejpmr, 2020,7(6), 756-759

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

MANAGEMENT OF A CASE OF INTRA-PAROTID LIPOMA

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Article Received on 01/04/2020 **Article Revised on 22/04/2020** **Article Accepted on 12/05/2020**

ABSTRACT

Lipoma of the parotid gland is extremely rare, accounting for only 0.6% - 4.4% of all parotid tumours. We present a rare case of lipoma of the superficial parotid lobe. A 46 year old male presented with mass of Lt parotid. Clinical examination revealed a mobile, soft, non-tender mass that measured of the left parotid gland. Parotidectomy preserving the facial nerve was performed. No recurrence/post-operative complications on follow up noted.

KEYWORDS: Lipoma; Parotid gland; Superficial lobe; Parotidectomy.

INTRODUCTION

Lipomas are usually asymptomatic, painless and slow-growing tumours, with a soft and doughy consistency, apparently occurring in fourth to sixth decade of life.[1-3]

Lipomas are mesenchymal in origin and can be found in any part of the body. It can develop in the head and neck region in 15–20% of cases.[2-4] Posterior cervical triangle and forehead are usually the sites of occurrence, with very few cases occurring in oral cavity, pharynx, larynx, parotid and parapharyngeal space.[3,4] Rarely it can arise in the Parotid gland with an incidence from 0.5 to 4%.[5,6]

Intra parotid lipomas usually occur in the superficial lobe (75%), whereas 8.5% cases occur in the deep lobe extending to the parapharyngeal space and about 16.5% of cases occur both in deep and superficial lobe on the inferior part of the parotid gland.[2,5,7,9]

CASE REPORT

A 46 year old male presented with insidious onset, gradually progressive swelling of Lt parotid of 06 months duration. Clinical examination revealed a mobile, soft, non-tender mass that measured about 4 X 4 cm in diameter in the area of the left parotid gland, extending from the ear lobule to the left mandibular angle. There was no facial paralysis nor palpable cervical lymph node involvement. Examination of oral cavity was found to be normal.

Magnetic resonance imaging (MRI) showed a well-defined homogeneous lesion of the superficial lobe of the left parotid gland with an enhanced signal on T1- and T2-weighted sequences and weak signal on fat suppressed sequences.

A left superficial parotidectomy preserving the facial nerve was performed. The specimen was soft, yellowish, well- circumscribed measuring 80X 35mm. Histological examination revealed a well-circumscribed aggregate of mature adipocytes surrounded by a thin fibrous capsule confirming the diagnosis of intraparotid lipoma.

DISCUSSION

Lipoma is the most frequently encountered benign mesenchymal tumours that may originate from adipose

tissue in any part of the body.[1,4] Rarely, it can develop in the parotid gland with reported incidence ranging from 0.6% to 4.4% among parotid tumours.[3] Lipoma may occur at any age, but most frequently between 40 and 60 years with a slight male predominance.[6] The first description of an oral lesion was provided by Roux in 1848, in a review of alveolar masses which he referred to as "yellow epulis".[8]

Its aetiology is unknown. It can be caused by heredity, obesity, diabetes, radiation, endocrine disorders, insulin injection, corticosteroid therapy and trauma.[7] In our case, we did not find any aetiological factors. Most of the reported cases were located at the superficial parotid lobe.[2] Lipomas involving the deep parotid lobe are extremely rare.[8] Clinical diagnosis may be difficult, especially for tumours located at the deep parotid lobe because it is difficult to evaluate the relationship between these masses and the surrounding tissues.

Intramuscular or infiltrating lipoma is an unusual clinical variant of this adipose tissue neoplasm, originating between skeletal muscle bundles and infiltrating through the intramuscular septa. They have a slight predilection for the tongue, due to the close relationship between the adipose tissue and the muscular layer. In infiltrating lipomas, there is a consistent and diffuse infiltration with dissociation and entrapment of the muscle fibers, some of which show degenerative changes. The muscle tissue is replaced by the fat, which may extend beyond the muscle fascia into the intermuscular connective tissue spaces. Fascia, joint capsules, bones, and nerves may also be infiltrated. Infiltrative lipomas could suggest a false diagnosis of liposarcoma but absence of cellular pleomorphism, nuclear hyperchromatism and low mitotic activity support the diagnosis of intramuscular lipoma.[9]

Those situated at superficial parotid lobe usually appear as a slow growing, non-tender, movable and well-differentiated soft mass in parotid region.[11] Facial paralysis and pain are uncommon signs and rarely have been described.[5] This benign clinical presentation is most often mistaken for Warthin tumour or pleomorphic adenoma.[3] Fine needle aspiration cytology (FNAC) has great value in the diagnosis of parotid tumours and requires an experienced cytologist. Its accuracy drops to less than 50% in the cases of parotid lipomas.[13] On imaging, CT scan shows hypodense, homogeneous and well delineated mass with few septations and negative attenuation, without contrast enhancement.[3] However, CT scan cannot distinguish lipoma from surrounding adipose tissue. MRI remains the best diagnostic tool that can accurately diagnose lipomas.[5] Lipomas produce strong signals on T1- and T2 weighted sequences and weak signals on fat-suppressed sequences. MRI can also clearly define the limits of lipoma from normal adipose tissue and may be useful in determining the appropriate surgical approach.

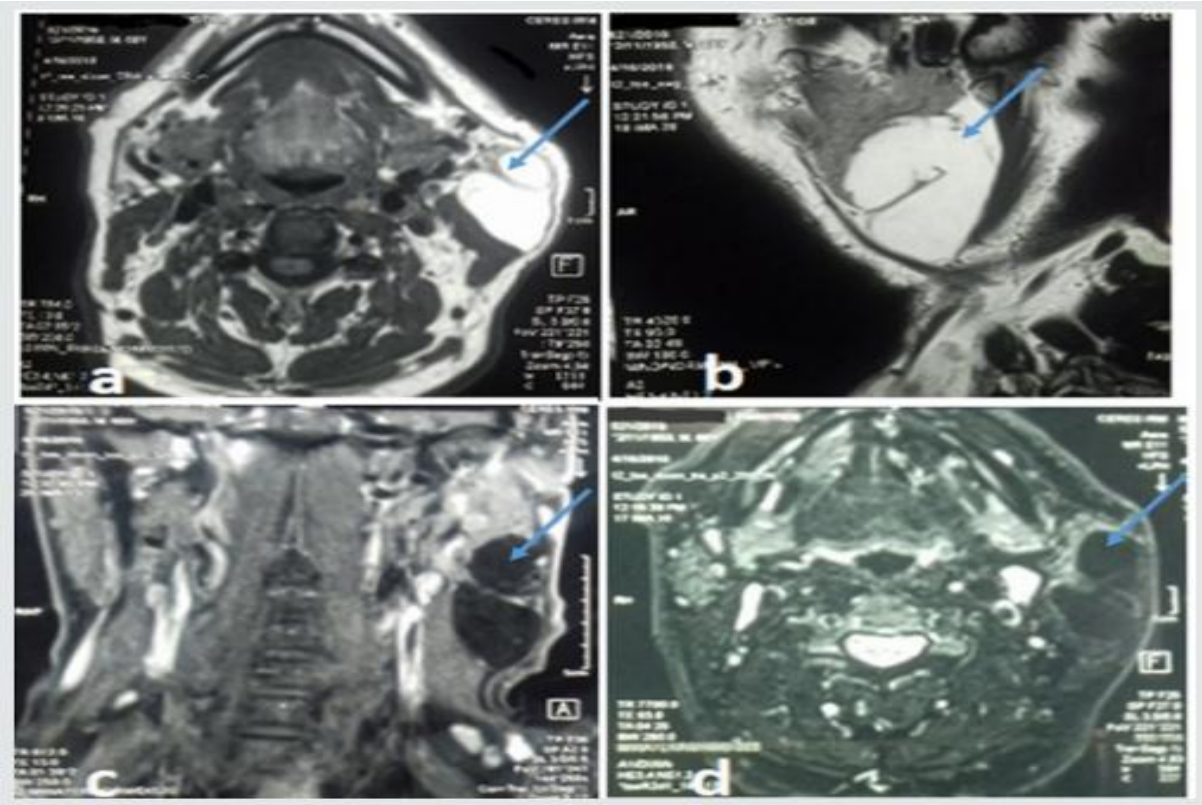

Figure 1: MRI of the parotid gland showing homogeneous mass on the superficial lobe of the left parotid gland on hyper signal T1 and T2 and a weak signal on fat suppressed sequences. The lesion is hypointense to parotid and uniformly non-enhancing.

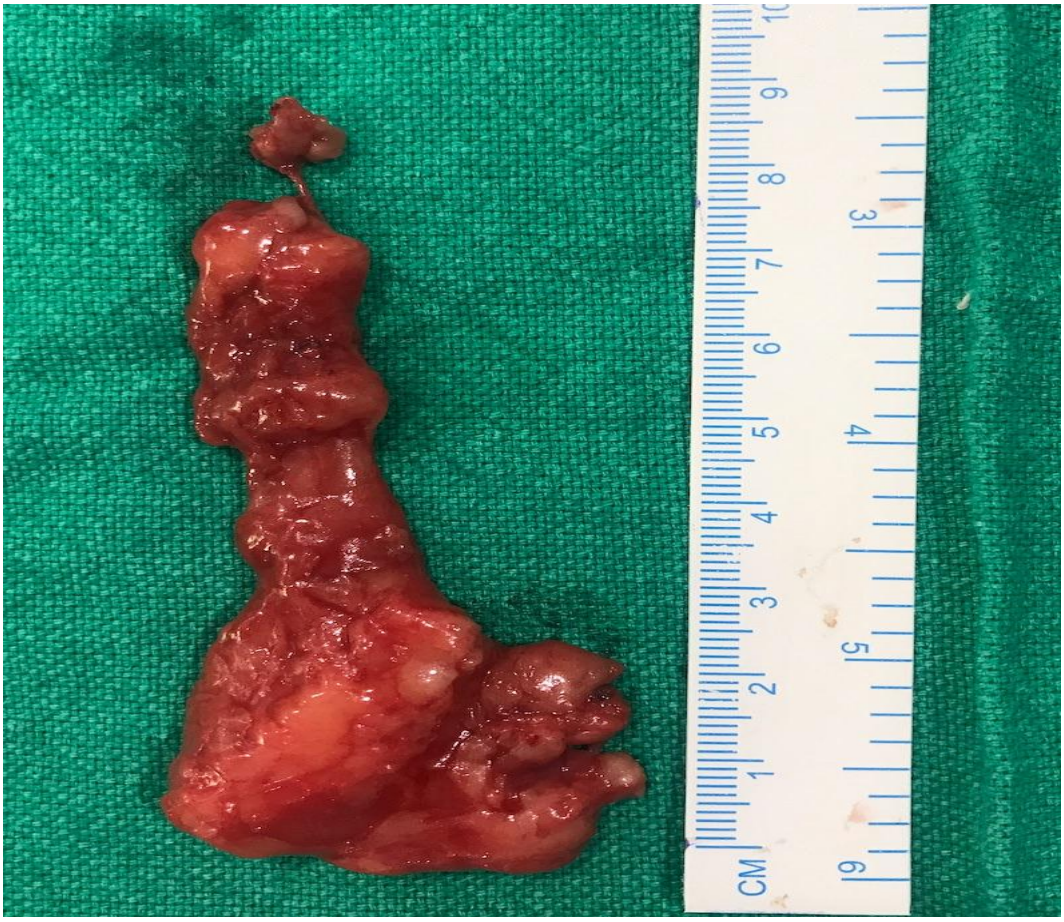

Figure 2: Macroscopic findings of the resected tumour.

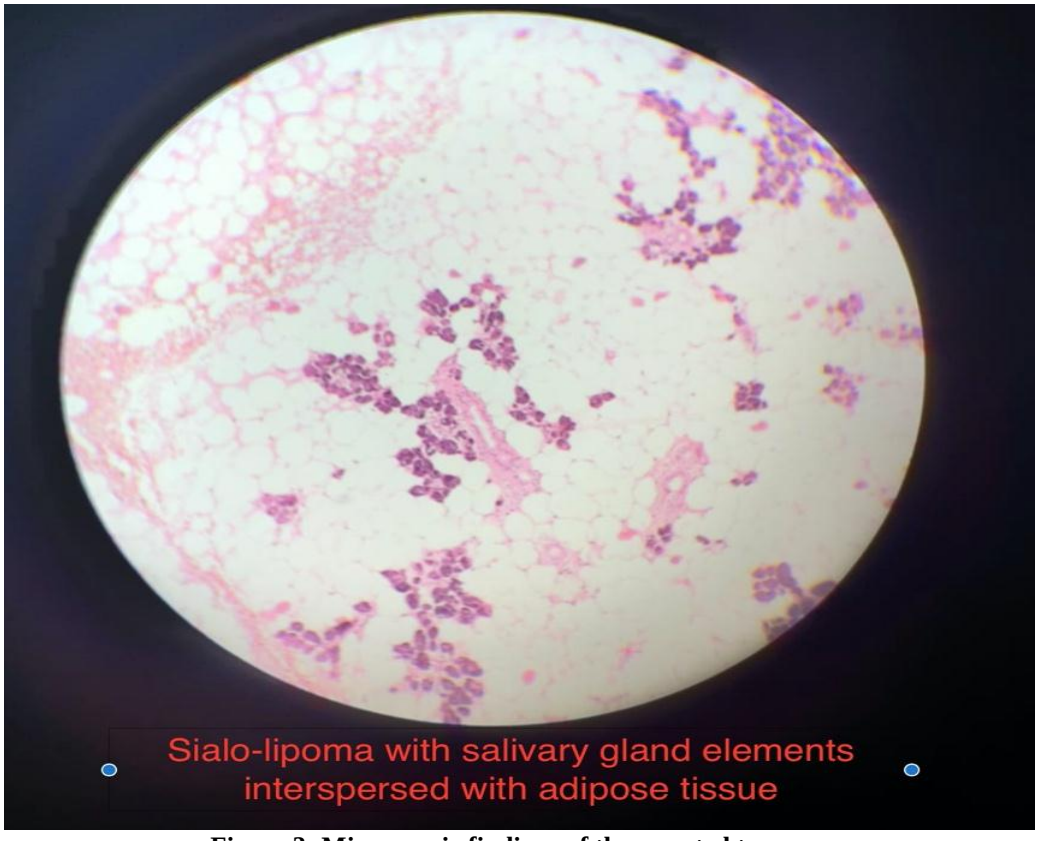

Figure 3: Microscopic findings of the resected tumour.

Main stay of treatment for intraoral lipoma is complete surgical excision. No recurrence has been described after local excision, but infiltrative lipoma tends to recur after inadequate excision due to the fact that they are not encapsulated like simple lipomas.

Surgery should be performed by experienced surgeons because of the need for meticulous dissection of the facial nerve branches. Some surgeons recommend simple enucleation of a superficial lobe parotid lipoma with a small border of healthy parotid gland parenchyma, as this is easy to perform because of the well-defined capsule.[13] Other surgeons suggest that the surgical management of parotid lipoma should be the same as that for other parotid tumours.[5-8] However, it is well known that transient facial nerve dysfunction and Frey's syndrome may occur as complications following surgical intervention for parotid tumours.[5]

Medical management of lipomas, which is now common, includes steroid injections that result in local fat atrophy, thus, shrinking the tumour size. They are best done on lipomas that are less than 1 inch in diameter.[14]

DECLARATIONS

Funding: No funding sources.
Conflict of interest: None declared.
Ethical approval: The study was approved by the Institutional Ethics Committee.

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