

Rare case of Intraoral lipoma masquerading as fibroma – case report and literature review

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Σπάνια περίπτωση ενδοστοματικού λιπώματος που εμφανίζεται ως ίνωμα – αναφορά περιστατικού και βιβλιογραφική ανασκόπηση

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Case Report
Αναφορά περιστατικού

SUMMARY: Lipomas represent a benign neoplasm of mature adipocytes. It rarely occurs in the oral mucosa, whilst they are very common extraorally especially the upper extremities. They have a 20% prevalence rate in the maxillofacial region, of which 1-4% occur in the oral cavity. When they do occur, they are often asymptomatic, but provide problems during speech, deglutition and ulcerations. Though it presents difficulty in clinical diagnosis. Meticulous investigative protocol should be followed to recognize differential diagnosis of such tumors in the oral cavity.

KEY WORDS: Lipoma, Mesenchymal Neoplasm, Oral Cavity, Neoplasm

ΠΕΡΙΛΗΨΗ: Τα λιπώματα είναι καλοήγη νεοπλασμάτα που ορμώνται εκ των ώριμων λιποκυττάρων. Εμφανίζονται σπάνια στον στοματικό βλεννογόνο, ενώ είναι πολύ συχνόι όγκοι εξωστοματικά, ιδιαίτερα στα άνω άκρα. Έχουν ποσοστό επιπολασμού 20% στην γναθοπροσωπική περιοχή, εκ των οποίων μόνο το 1-4% εμφανίζεται στη στοματική κοιλότητα. Όταν εμφανίζονται, είναι συχνά ασυμπτωματικά, αλλά μπορεί να δημιουργούν προβλήματα κατά την ομιλία, διαβρώσεις και έλκη του βλεννογόνου. Καθώς υπάρχει δυσκολία στην κλινική διάγνωση, θα πρέπει να ακολουθείται σχολαστικό πρωτόκολλο διερεύνησης για την ορθή διαφορική διάγνωση τέτοιων όγκων στη στοματική κοιλότητα.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ: Λίπωμα, Μεσεγχυματικό νεόπλασμα, Στοματική κοιλότητα, Νεόπλασμα

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INTRODUCTION

Lipoma, is a benign mesenchymal tumor of the adipocytic cells. They are named after their histological description where they are characterized by an encapsulated tumor of mature adipocytes in a fibrous connective tissue stroma (1,2). It was first described by Roux in 1848 (3). The incidence of rate of lipomas in the maxillofacial region has been estimated to be around 15%-20%. Intraorally, they originate from the buccal pad of fat (4), they are also seen in the tongue, floor of the mouth, gingiva, hard palate and major salivary glands (5). 2% to 3% of the patients presenting with lipoma have a hereditary pattern in their fourth decade of life. Clinically, they manifest as a slow-growing, sessile, painless, soft, circumscribed tumor. Solitary lipomas are often considered as a component of Gardner syndrome, adiposis dolorosa, and madelung disease (6-8). In this paper, we discuss a rare occurrence of intraoral lipoma and discuss the problems arising due to its striking similarity with other tumors of the oral cavity.

CASE REPORT

A 31 year old female reported to the outpatient clinic with a swelling inside her right cheek for past 1 year. The growth was in relation to right lower back tooth region, it had started small in its size but progressed to its current size. The swelling was not tender and there was no history of previous episode of such growth. Intraoral examination revealed a solitary, sessile, ovoid growth, pale pink in colour on the right sided buccal mucosa. The swelling was around 1 cm * 1 cm in relation to 43, 44 region with well-defined margins [Figure 1]. On palpation, the growth was found to be soft, fluctuant, non-tender. Considering the chief complaint and the clinical features it was provisionally diagnosed as traumatic fibroma in relation to right buccal mucosa. Differential diagnosis included mucocele, lipoma, fibroma and pyogenic granuloma.

The hematological parameters were tested and were within the normal range. Excisional biopsy of the growth was performed under local anesthesia [Figure 2] [Figure 3]. Patient was prescribed antibiotics and analgesics post-operatively. The histopathological section of the excised specimen revealed circumscribed lobules of plump adipocytes that were separated into lobules by a thin connective tissue septae. This was associated with a parakeratinized stratified squamous epithelium. These features suggestive of a lipoma. Patient was reviewed the following week, healing was satisfactory with no recurrence after a follow up of 2 years.

DISCUSSION

Roux in 1848, described lipoma as yellow epulis. It



Fig. 1: Pre operative clinical photograph



Fig. 2: Post operative clinical photograph

is one of the most common mesenchymal tumors in the body. In the maxillofacial region, it presents with a prevalence rate of 4% to 5% (9) with intraoral occurrence has a reported prevalence rate of 0.1% to 5% (10). Its involves adults in their third or fourth decade (11) with a male-female ratio of 1:1.2 (12). The etiology though unclear, has been linked to traumatic incidents, infection with two-thirds of lipomas exhibit genetic abnormalities with structural rearrangements of chromosomes involving 12q13-15 region, 13q portion loss, 6p21-23 region (13). Clinical manifestation include slow growing, sessile, fluctuant with a characteristic yellowish colour. In our case, the swelling was found to be mobile, fluctuant and non-tender, these features were all positive in our case. Due to the striking similarity with the other oral tumors, biopsy followed by histopathological examination remains the gold standard in the diagnosis of lipoma (14). In our case, the excised specimen revealed mature adipocytic lobules that were separated by thin connective

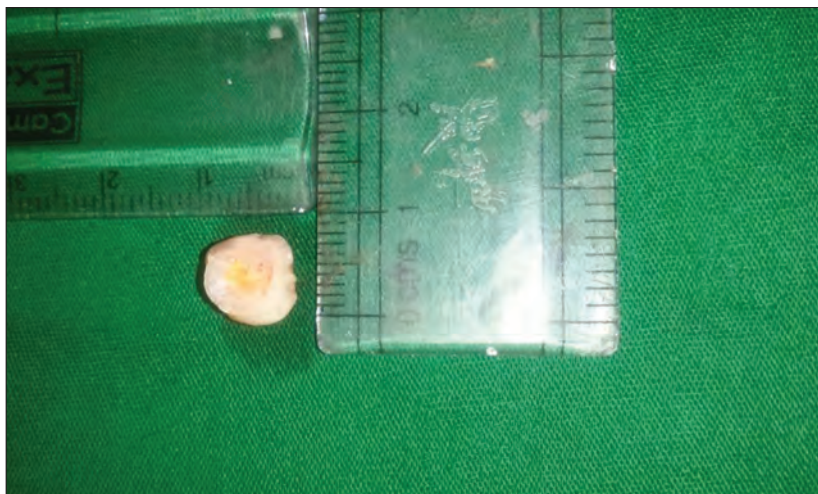


Fig. 3: Gross picture of the excised specimen.

tissue septa without cellular atypia or lipoblast, features that were suggestive of a lipoma.

Although traditional biopsy is the gold standard, it poses difficulties especially for trans-mucosal lesions. In such cases, Fine Needle Aspiration cytology (FNAC) is relatively safe, economical technique that causes very minimal trauma since the oral cavity and oropharynx are readily accessible for FNAC. The FNAC smears have high sensitivity, specificity and diagnostic accuracy (15, 16) and differentiates between benign from malignant lesions, (liposarcoma from lipoma) thereby avoiding the aggressive management for tumors that can be treated conservatively (17). Cytological features of lipoma include fragments of adipocytic tissue with univacuolated mature adipocytes with eccentric nuclei. However, when drawing aspirate from a suspected lipoma, care should be taken to place the needle in the centre of the tumor, as any peripheral aspirate would resemble normal subcutaneous tissue. Liposarcomas are differentiated by increased vascularity, scattered or clustered adipocytes with multivacuolated cytoplasm and histiocytes with foamy cytoplasm (lipophages).

Advanced diagnostic aid in lipoma involves analyzing the MDM2 (murine double minute-2) gene amplification to differentiate between the lipoma and its malignant counterparts such liposarcoma, pleomorphic lipoma, spindle cell lipoma, angiolipoma, chondrolipoma, pleomorphic lipoma, fibrolipoma, and sialolipoma (18). The differential diagnosis include epidermoid cysts, oral lymphoepithelial cyst, benign salivary gland tumor, mucocele, ranula, lymphoma and a unique differential entity called as traumatic pseudolipoma where there is herniation of the buccal fat pad due to a traumatic incident such as laceration, tear etc., It is usually seen in infants and young children due to their large buccal fat pad a trauma sustained from laceration (19). The inflammation from the trauma initiates a cytokine mediated differentiation of adipocytes followed by haematoma formation. Some patients who present

with posttraumatic lipoma have shown elevated levels of thromboplastin (20,21). Traumatic pseudolipoma are often differentiated from lipoma by their history of trauma and a clinical observation of the swelling that is yellow or red in colour in initial stages but gradually transitions to a purple or deep blue colour due to thrombosis.

Surgical excision along with the fibrous capsule to prevent reoccurrence is the treatment of choice (22). For lipomas which are more than 1 inch in diameter, it is advised to give intralesional lidocaine and triamcinolone acetonide in the ratio of 1:1 for lipolysis, which reduces the size of the tumor due to local fat atrophy, also useful in the regression of lesion (23). There is no recurrence after adequate excision.

CONCLUSION

Proper diagnosis, management and treatment of these lesions are of utmost importance due to the occurrence and similar presentations with neoplastic growths, though the incidence is rare. The dentist should be familiar with the types and methods that are at the disposal for diagnosing such tumors. Solitary lipoma should always be ruled out of any underlying syndromes.

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