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Unusual presentation of lipoma with multiple extensions and infiltration in to buccal mucosa–A case report

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Abstract
Lipomas are one among the common benign neoplasm of mesenchymal origin. They are composed of mature fatty tissue and are generally seen in subcutaneous tissue. They are more commonly seen superficially, but deep seated infiltrating lipomas are not uncommon. Approximately 20% of soft tissue lipomas are seen in head and neck area. Intraoral lipomas are rare and account for only about 1%-4%. This article presents a case report of lipoma with multiple extensions and ingrowth in to buccal mucosa which is an unusual presentation in literature.

Keywords: unusual presentation, lipoma, buccal mucosa

Introduction
Lipomas are one of the most common benign neoplasm which is derived from mature adipocytes. Embryologically they are mesenchymal in origin [1, 2]. Usually they are enclosed with in a well-defined fibrous Capsule. Soft tissue lipoma was first described by Roux in 1848 [3]. Cornil and Ranvie are credited for describing first intra osseous variant of lipoma in 1880's ["4"]. 15%-20% of soft tissue lipomas is contributed by the head and neck area, of which intraoral lipomas account for about 1%-4% [5]. The etiology of lipomas is not very clear. There are many theories regarding development of lipoma. The metaplasia of mature adipocytes in to lipoblast (metaplasia theory) [6] and indefinite growth of adipocyte (hypertrophic theory) [7] are the two well accepted theories. Constant traumatic injury and concomitant irritation are also suggestive etiological co factors. They are commonly seen in the age group of 40-60 with male gender predilection [8, 9]. They are often asymptomatic, smooth and nodular.

Case Report
Even though lipomas are common soft tissue tumors in head and neck area; they are infrequent in oral cavity. Also they are frequently diagnosed in adult age. Reported cases in pediatric age group are very rare. Generally lipomas show no gender predilection, but oral and maxillofacial lipomas are more common in men ["10"]. All these classical features make our case report unusual. Here we present a case report of lipoma with multiple extensions and ingrowth in to buccal mucosa which is an unusual presentation in literature.
A seven year old female patient reported to our outpatient department with chief complaint of swelling on the left cheek area since 4 years (fig 1). The swelling was initially small which eventually enlarged in size. Patient gave a history of occasional tooth biting in relation to the same area. Medical, dental, family and personal history had no commendable findings. Systemically patient was healthy. On examination multiple soft nodules (3 in no) noted on the left buccal mucosa of size 2 x 2 cm. The lump was greyish black in color. The overlying and adjacent tissues were normal with no ulceration or erythematous change. Swelling was non-pulsatile and the edges were slippery. There was no induration and tenderness on palpation.

Investigations
An MRI was taken in addition to the routine blood examinations and MRI showed focal heterogeneous asymmetrical soft tissue thickening on the buccal mucosa of the left check region showing suppression of fat and signal characteristics of most likely lipoma.

Treatment done
The lump was excised *in toto* during biopsy procedure. Biopsy was under general anaesthesia and the wound was sutured with 4.0 vicryl suture material. The resected yellow-colored mass was washed with normal saline for clearing the blood and soft tissue debris. Then the mass was fixed with 10% buffered formalin and was sent for histopathological examination. Microscopically section revealed a neoplasm composed of mature adipocytes arranged in to lobules by thin fibrous septa. Muscle fibers, nerve tissue and few dilated and congested blood vessels are also noted at the periphery. The histopathological features were consistent with lipoma.

Differential diagnosis

Oral dermoid/epidermoid, fibromas and lymphoepithelial cysts have obvious similarities with oral lipomas.

Discussion

Roux in 1848 first described lipomas clinically. Lipomas are defined as subcutaneous tumor derived from mature adipose cells enclosed by a layer of fibrous tissue [11]. They are embryologically derived from mesenchymal tissue. Clinically they are prominently seen in the cephalic part of body and accounts for about 15-20% of head and neck area. of this about 5% is contributed by oral cavity. They are one of the common neoplasm of head and neck area. Usually they pose no threat to the patient. If they grow rapidly (which is of a rare occurrence) or if they create discomfort surgical excision is preferred.

Lipomas are sometimes associated with certain syndromic diseases like Gardners syndrome and such ones should be very carefully addressed [12]. The exact etiology of lipoma is not correctly defined; some studies show a genetic correlation in addition to the classical metaplasia theory, hypertrophic theory and traumatic etiology like chromosomal abnormalities including rearrangements of 12q, 13q and 6p chromosomes [13].

Histologically there are many variants of lipoma. The fibrolipomas which show greater proliferative rate compared to a classic lipoma and warrants the need of its proper diagnosis [14]. Fibrolipoma contain fibrous connective tissue, which is often hyalinised and is interspersed between mature adipocytes. Another histological variant is infiltrating lipoma which produces multiple satellite extensions radiating from the mother tumor.

The techniques used for treatment of lipomas include intra-lesional trans-cutaneous sodium deoxycholate (associated or not to phosphatidylcholine) injections, intra-lesional steroids combined with isoproterenol injections, liposuction, surgical excision etc. However surgical excision is the most effective method since rate of recurrence is very low if proper removal of lipoma along with fibrous capsule is done [15].

The prognosis of benign lipomas is very good. Usually lipomas carry no risk of malignant transformation. However it is imperative that the fibrous capsule surrounding lipoma is properly excised to prevent recurrence [16].

Photographs

Fig 1: Swelling in relation to left buccal mucosa (3 nodules)

Fig 2: Excised first nodule

Fig 3: Excised 2nd nodule

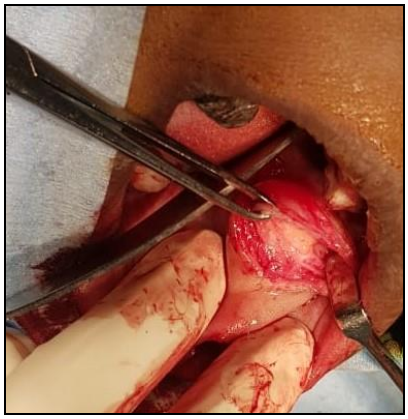

Fig 4: Blunt dissection of 3rd nodule

Fig 5: 3rd nodule pulled out

Fig 6: 3rd nodule excised out

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