An Uncommon Case of Fibrolipoma

Abstract

Lipoma is a common benign soft-tissue neoplasm derived from mature adipose tissue neoplasm, but its presence in the oral and pharyngeal region is relatively uncommon. Oral lipoma was first described by Roux in 1848 as “yellow epulis.” It has an incidence rate of about 1%-4% of all benign oral lesions, with a prevalence rate of about 0.0002%. Fibrolipoma is an extremely rare subtype of lipoma which accounts for 1.6% of all facial lipomas. Specific anatomic locations of occurrence within the oral and maxillofacial region include the parotid region, buccal mucosa, lips, submandibular region, tongue, floor of mouth, and palate. Here, we present fibrolipoma, a very rare subtype of lipoma involving the left retromolar region in a 50-year-old female patient.

Keywords: Diode laser, fibrolipoma, lipoma, retromolar region

Introduction

Lipoma is a benign soft-tissue tumor of mesenchymal origin composed of mature adipocytes. Oral lipoma was first discovered by Roux in 1848 as “yellow epulis.” About 15%-20% of the cases involve head and neck region while 1%-4% affect the oral cavity.[1] It has an incidence rate of 1%-4% and prevalence rate of 0.0002%.[2] The WHO classified lipomas as conventional lipoma, fibrolipoma, angiolipoma, lipomatosis of nerve, and lipoblastoma. Histological variants are very rare as compared to conventional lipoma. Fibrolipoma is an extremely rare subtype which accounts for 1.6% of all facial lipomas. The most common site of fibrolipoma is buccal mucosa followed by the tongue.[3]

Case Report

A 50-year-old female patient visited to the Department of Oral Medicine and Radiology, Rajarajeswari Dental College and Hospital, Bengaluru, Karnataka, India, with a chief complaint of swelling in her left cheek region for 1 year and associated with pain for 1 month. The patient first noticed the swelling 1 year back, which was initially small and gradually increased to the present size and associated with pain for 1 month. Pain was sudden in onset, intermittent, mild to moderate in intensity, dull, and nonradiating which aggravates while chewing food and subsides by its own. She had developed difficulty in mastication for 1 week. There was no history of pus discharge, bleeding, and trauma. Past medical, dental, and family histories were noncontributory. On general physical examination, the patient was moderately built and nourished. On extraoral examination, no abnormality was detected. Intraoral examination revealed a solitary, well-defined, sessile swelling present in relation to the left retromolar region measuring about 1.5 cm × 1 cm extending superoinferiorly from alveolar ridge through the line of occlusion and mediolaterally from the distal aspect of #37 till the retromolar region [Figure 1]. Mucosa over the swelling appeared pale pink, ulcerated, and an indentation mark of the upper tooth was noted. On palpation, swelling was well defined, soft to firm in consistency, mobile, and tender over the ulcerated mucosa. On hard-tissue examination, sharp cuspal tips were present in relation to the upper left second molar. Based on clinical findings, a provisional diagnosis of traumatic fibroma in relation to the left retromolar region was made. Peripheral fibroma and neurofibroma were considered under differential diagnosis.

Routine blood examination results were found to be within normal limits. The lesion was excised under local anesthesia using a diode laser with a 320 μm fiber-optic
tip operating at 3W in a contact, continuous wave mode and the specimen [Figure 2] was sent for histopathological examination. Microscopic examination revealed hyperplastic, atrophic, parakeratinized, and stratified squamous type showing hyperkeratosis, acanthosis with irregular rete peg [Figure 3]. The underlying connective tissue showed lobules of adipocytes septated by fibrovascular septa with numerous capillaries and endothelial cell proliferation [Figure 4]. Based on this, we confirmed the diagnosis of fibrolipoma. The postoperative period was uneventful and there is no recurrence till date.

**Discussion**

Lipomas are the most common benign tumors which occur in all anatomical sites that comprise adipose tissue in their structure. They can occur anywhere in the body and earn the title of “universal tumor” or “ubiquitous tumor.” Oral lipomas are relatively rare entities which account for 2.2% of all lipomas and among that 1%–4% of all benign tumors of oral cavity. The first description of oral lipoma was given by Roux in 1848 and referred to as “yellow epulis.” Oral lipoma and its variants generally occur in adult patients between the age range of 40–60 years, with male predominance. Various studies reported male predominance for classic lipoma to be in the ratio of 1.5:1 whereas female predominance for fibrolipoma to be in the ratio of 1:1.3. The buccal mucosa and buccal vestibule are the most common intraoral sites which account for 50% of all cases. Less common sites include the tongue, floor of the mouth, lips, palate, and the retromolar area. Our case, involving left retromolar region in a 50-year-old female patient, represents one of the least commonly involved sites.

The exact etiology remains unclear, but currently, the most probable etiology of lipoma includes hereditary, fatty degeneration, hormonal basis, trauma, metaplasia of muscles, and lipoblastic embryonic cell nest origin. Also, few authors suggest that they arise due to rearrangement of chromosome numbers 12q, 13q, and 6p. In our case, the etiology may be due to chronic trauma from sharp cuspal tips of the upper tooth.

The clinical features may differ depending on the location of the lesion. Usually, they manifest as asymptomatic, slow-growing, sessile, round-to-ovoid submucosal nodules. Unless the yellow color of the tumor appears through the overlying thin mucosa, diagnosis of these tumors is
clinically not easy in case of deep-seated lesion; however, superficial lesion can be diagnosed.[7] The size may vary from 0.2 to 1.5 cm in diameter, although tumors as large as 50 mm have been reported in the cheek. Signs and symptoms may include a feeling of fullness and discomfort. Functional problems such as dysphagia, difficulty in speech, and mastication have also been reported in large sublingual lipomas. Complications are rare and few. Long-standing cases may turn into liposarcomas.[8] Even though our case presents a long-standing period for 1 year and the lesion was measuring about 1.5 cm × 1 cm involving the left retromolar region, no other major complication was encountered but it was associated with difficulty in mastication.

The differential diagnosis of intraoral lipoma includes oral dermoid and epidermoid cysts, oral lymphoepithelial cyst, benign salivary gland tumor, mucocele, benign mesenchymal neoplasm, ranula, ectopic thyroid tissue, and lymphoma. Lesions appearing as swelling on the dorsum of the tongue usually mimic hemangioma, lymphangioma, rhabdomyoma, nevroma, or neurofibroma.[7] In the present case, differential diagnosis includes peripheral fibroma and neurofibroma since the lesion is clinically firm in consistency, ulcerated with a history of trauma.

Histologically, lipoma can be classified into conventional lipoma, fibrolipoma, angiolipoma, pleomorphic lipoma/spindle cell, myxolipoma, condrolipoma, osteolipoma, myolipoma, lipomatosis, lipomatosis of the nerve, lipoblastoma, and hibernomas.[3,9] Compared to conventional lipoma, other histological variants are very rare, and fibrolipoma is an extremely rare subtype.[3]

Histologically, fibrolipoma is composed of mature fat cells subdivided into lobules by fibrous shoots. Fibrous connective tissue, especially peripherally, is well represented. When compared to conventional lipoma, even macroscopically, the fibrous component appears more represented, especially in the capsule.[5] Similarly, our histological findings revealed connective tissue with haphazardly arranged collagen fibers with lobules of adipocyte septated by fibrovascular septa.

Treatment modality for intraoral lipoma is complete surgical excision. No recurrence has been described after local excision.[7] The medical management of lipomas includes steroid injections that result in local fat atrophy, thus shrinking the size of tumor. They are mostly done in case of lipomas that are <1” in diameter. Repeated monthly injections of 1:1 mixture of lidocaine and triamcinolone acetonide into the central region of tumor may be useful in regression of lesion.[5] In our case, the lesion was excised using diode laser with a 320 μm fiber-optic tip operating at 3W in a contact, continuous wave mode.

Intraoral lipomas are rare entity which may be noticed only during routine dental examinations. The clinical course is usually asymptomatic until they become large. Most of the lipomas develop in the subcutaneous tissues, but deeper tissues may be involved as well. Nearly all lipomas rarely cause pain, resulting in delay to seek treatment. It is mandatory for a clinician to diagnose intraoral lipomas. Diagnostic aids such as ultrasonography, computed tomography, and magnetic resonance imaging may be performed to know the extent, location, and margins of the mass in case of infiltrating lipoma.[9] Thereby conservative treatment is the desired protocol without causing much discomforts.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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