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OPEN

10.2478/bjdm-2018-0009

BALKAN JOURNAL OF DENTAL MEDICINE

BaSS

ISSN 2335-0245

Oral Lipoma Located at the Left Lower Vestibule- Report of a Case and a Brief Review of the Literature

SUMMARY

Backround/Aim: *The present paper focuses on examining a case report of an oral lipoma located at the left lower vestibule.* ***Case report:*** *The patient's clinical state was thoroughly studied, along with the findings of histopathological examinations. The surgical treatment and postoperative course are also within the scope of this report. Numerous histogenesis theories and the appropriate tumor treatment are mentioned within the article, being always in accordance with the relative literature.* ***Conclusions:*** *Oral lipoma is a benign not very rare neoplasm, which occurs most commonly in adult males. The surgical excision is the treatment of choice. The diagnosis must always be established by histological examination.*

Key words: Oral Benign Neoplasm, Oral Lipoma, Oral Mucosal Swelling

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CASE REPORT (CR)
Balk J Dent Med, 2018;49-52

Introduction

The oral lipoma is a benign neoplasm, probably of mesenchymal origin, composed of the mature adipocytes, usually covered by a fibrous capsule[1,2]. Roux was the first who described this oral lesion in 1848. when he referred lipoma as yellowish epulis[3]. The tumor is rarely located on the head and neck area (15–20% of the cases)[2]. Among the head and neck cases, merely 1-5% of the lesions are located intraorally, while only a few cases of malignancy have been reported in the literature[2].

A greater incidence of lipomas is reported in adult patients. According to sex distribution, the referred data are controversial. The ratio between male and female patients is reported to be either equal[4], or there is a strong male predilection[5], or a slight female prevalence is noted, with a female to male ratio of 1.2:1, especially between the fourth and the sixth decade of their lives[1]. Most cases come from countries of the western world[6,7].

Regarding the site predilection, it is probably correlated to the availability of adipose tissue, which is high in the buccal mucosa due to the proximity of buccal fat pad and very low in the palate[8]. The lesion is most frequently located at the buccal mucosa[4,5], followed by the lips, tongue, palate, vestibule, mandible, the floor of the mouth and retromolar area[1,2]. Conversely, salivary glands and gingivobuccal fold, parotid masseteric region and neck, and pharynx/larynx are involved less frequently[9,10].

Clinically, oral lipoma appears to be a well circumscribed, painless, soft, slow growing tumor with either a sessile or a pedunculated base[2,8,11]. The oral lipoma's color ranges from yellow to pinkish, depending on the depth of the lesion[2,6,9]. Regarding the size of oral lipoma, it varies greatly, but most of these lesions are about 10mm in diameter[1]. When they occur as multiple lesions they may be correlated with syndromes such as neurofibromatosis, Gardner's syndrome, Dercum's disease, familial multiple lipomatosis, Proteus syndrome or Pai syndrome[1].

Case report

A 78-years-old male patient was referred to our Clinic by his dentist, who detected a swelling located at the buccal mucosa of the mandible, in the periapical region nearby the second left lower premolar. His medical history revealed that he has been under medical treatment of hypertension and moderate heart failure.

The clinical examination revealed a tumor located in the aforementioned region. The swelling was soft and painless in palpation, well defined, and covered by pinkish mucosa. The vitality test for the adjacent teeth was positive; so periapical inflammation was excluded. Extraoral examination revealed no swollen lymph nodes. The initial clinical diagnosis included oral lipoma or other benign neoplasm. The lesion was surgically excised in toto under local anesthesia. The yellowish color of the excised lesion was a supportive element to the diagnosis of lipoma (Figures 1 & 2).

Figure 1. Oral lipoma during the surgical excision.

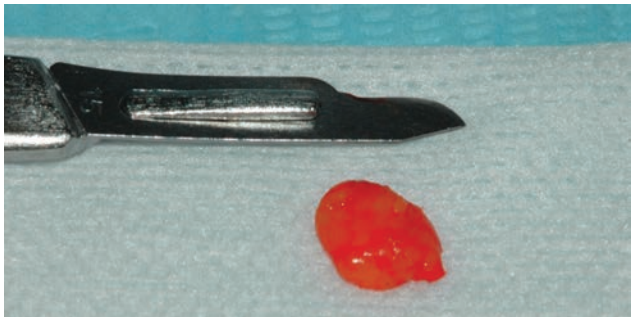

Figure 2. The lesion after the surgical excision in toto.

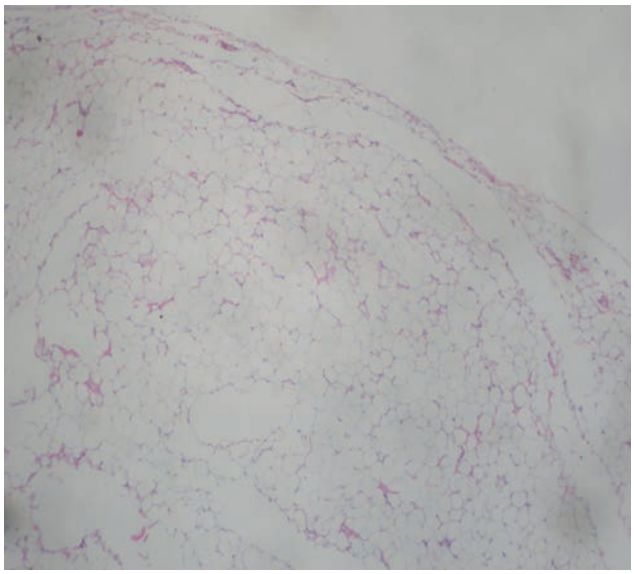

Figure 3. Mature lipoma covered by thin fibrous capsule (H-E X50)

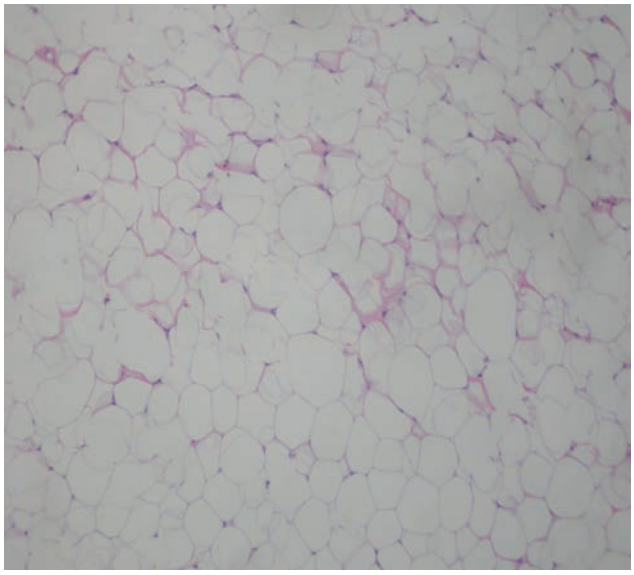

Figure 4. Lipoma with mature adipocytes, without lipoblasts (H-E X100)

The histopathological examination revealed mature adipocytes, without lipoblasts. Additionally, the lesion was surrounded by a fine fibrous capsule. A mature lipoma was the final diagnosis (Figures 3 & 4).

The patient's postoperative period was uneventful and no recurrence was reported two years after the surgical excision.

Discussion

We describe a case of an oral lipoma, located at the left vestibule of the mandible, in the periapical region near the second left lower premolar. The treatment of choice was the surgical excision in toto and the histological examination confirmed the clinical diagnosis of lipoma.

Histologically, oral lipomas are divided into subtypes based on the matrix and the properties of tumor cells: simple lipoma, fibrolipoma[4,12,13], spindle cell lipoma[5,14], intramuscular lipoma[14], chondrolipoma, pleiomorphic lipoma, myxoid lipoma or myxolipoma[15], angiolipoma[16,17], osteolipoma[18,19], angiomyxolipoma, sialolipoma, infiltrating lipoma, perineural lipoma, intraneural lipoma and atypical lipoma[1,2,8]. Despite the fact that the etiology and pathogenesis of the tumor are not clear, two main theories have been claimed: (i) The Hypertrophy theory, which correlates obesity and inadvertent growth of adipose tissue with the formation of oral lipoma[1]. This theory lacks explaining the reason why lesions occur in areas without pre-existing adipose tissue[1], and (ii) the Metaplasia theory according which the lipomatous development occurs due to aberrant differentiation of mesenchymal cells in lipoblasts[1]. Factors like endocrine disorders, inflammation, hypercholesterolaemia and obesity,

radiation, chronic irritation, spontaneous development, metaplasia of muscle cells and fatty degeneration, trauma as well as chromosomal abnormalities, have also been considered[1,2,20]. Furthermore, a number of authors have proposed diabetes mellitus and nutritional problems as possible causative factors[9,21].

The clinical diagnosis of oral lipoma is easy due to its yellowish color, and its usual location superficially near the mucosa[1]. Extra caution is needed during differential diagnosis between oral lipoma and other types of tumor such as fibroma, sarcoma, dermoid cyst, minor salivary gland tumors, malignant lymphoma hemangioma or neuroma[1,9,22]. Some authors believe that oral lipoma located at the buccal mucosa is not a true tumor but, rather, herniation of the buccal fat pad through the buccinator muscle[9]. Such cases may occur following a local trauma in young children or a surgical excision of third molars in older patients[9].

Most tumors are relatively asymptomatic and grow to a large size before patients seek medical care[8], due to concerns regarding growth, cosmetic aspects or symptoms as a result of the compression of local structures[7]. Surgical excision is the treatment of choice[1].

No recurrence has been reported, although it may occur in infiltrating lipomas mainly because of an inadequate excision combined with a non-encapsulated lesion[1]. More specifically, well-encapsulated lipomas are easily excised with no chance of recurrence or damage to the surrounding structures[9].

In any case histological examination ought to confirm the clinical diagnosis. Special attention must be paid to avoid confusion with histological features of liposarcoma[5].

Conclusions

The lipoma of the oral cavity is a rare benign tumor, usually growing in the buccal mucosa. The surgical excision of the tumor constitutes the treatment of choice. The histological examination confirms the diagnosis. Extra caution is needed through differential diagnosis between oral lipoma and malignant neoplasms.

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Received on Jun 3, 2017.
Revised on August 2, 2017.
Accepted on October 12, 2017.

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