

Intra oral Lipoma - A case report

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Abstract

Lipoma is a very common benign tumor of adipose tissue, but its presence in the oral and oropharyngeal region is relatively uncommon, with a prevalence rate of only 1/5,000 adults. Lipomas represent about 1 to 5% of all neoplasms of the oral cavity. While most lesions are developmental anomalies, those which occur in the maxillofacial region usually arise late in life and are presumed to be neoplasms of adipocytes, occasionally associated with trauma. Most of the cases, affect adults without gender predilection. The main sites involved are the buccal mucosa tongue, lips and floor of mouth. A case of lipoma of oral cavity in 18years old male is presented along with the clinical picture, histopathologic features and treatment plan. The relevant literature regarding the condition is also discussed.

Keyword:

Buccal mucosa, lipoma, oral mucosa.

Introduction

Lipoma is a benign mesenchymal tumor composed of mature adipocytes and are usually surrounded by a thin fibrous capsule^[1]. Lipoma is one of the most common tumors of mesenchymal origin which is commonly found on the trunk as well as proximal portion of extremities. The incidence of lipoma varies in between 15-20% in head and neck region but when it comes to oral cavity, the incidence is only around 1-4%^[2]. Pathology is uncertain but seems to be more common in obese people however decrease in calory intake doesnot decreases the size of lipoma^[3]. It appears that the cells of lipoma differ metabolically from normal fat cells even though they are histologically similar. It is usually a neoplasm of 4th -5th decade of life with no sex predilection^[4]. Diagnosis is usually made clinically; MRI is useful adjunct while CT scan and ultrasound are less reliable^[3].

Here we present a case report of 18 years old male patients with lipoma of right buccal mucosa.

Case report

An 18 years old male patient reported to Department of Plastic, Cosmetic and Maxillofacial Surgery BnB Hospital with a painless swelling in the right cheek region just anterior to the anterior border of ramus of mandible since 6 months. The swelling was slow growing in nature. There was no history of trauma.

On examination the swelling was 3x3 cm in diameter; smooth, freely movable with well defined edge. The overlying mucosa was normal, non tender on palpation. The local temperature was normal. Slip sign was positive with soft consistency but fluctuation test was negative. There was no pulsation felt over the mass. Transillumination test was positive. Regional lymph nodes were not palpable. Aspiration using 22 gauze needles was negative. Intra-oral hard tissue examination revealed dental caries in 36, 48, 47; soft tissue impaction of 38 along with some stain and calculus.

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The lesion was planned for excision intra orally so as to prevent any conspicuous scar on the face. After surgical preparation of the site; local infiltrations of lidocaine was given (with adrenaline). A horizontal incision of nearly 3cm till submucosa was placed on the right buccal mucosa 2 cm anterior to the anterior border of ramus of mandible (fig 1).



Fig 1 – Horizontal incision through mucosa and submucosa over lesion

Blunt dissection was done hereafter exposing the lipoma. The entire lesion was excised along with its capsule (fig 2, 3, 4&5).

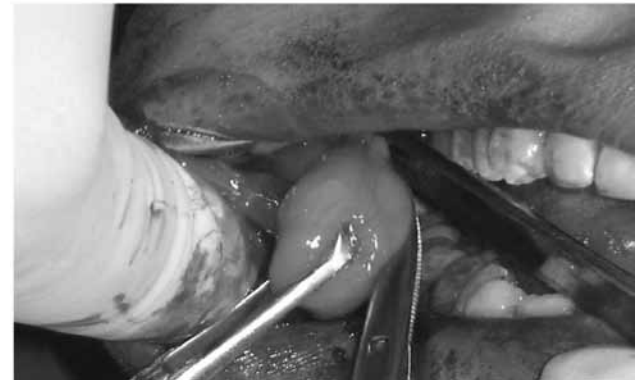


Fig 2, 3, 4, 5 – Blunt dissection to expose and excise the mass, Excised mass.

Bleeding was controlled by applying pressure packs and the site was closed with interrupted suture (4-0 black silk suture). The specimen was sent for histopathological examination. The patient was recalled after 5 days for suture removal. The patient was reviewed every month for the next six months. There was neither any local complication associated with the procedure nor there were any signs of recurrence of lesion. Microscopic examination of the lesion revealed sheets of matured Adipocytes with clear cytoplasm with no any signs of atypia or metaplasia. There was a lobular arrangement of cells with fibrous septa in between them. Based on the histopathological features a diagnosis of Lipoma was made (fig6).

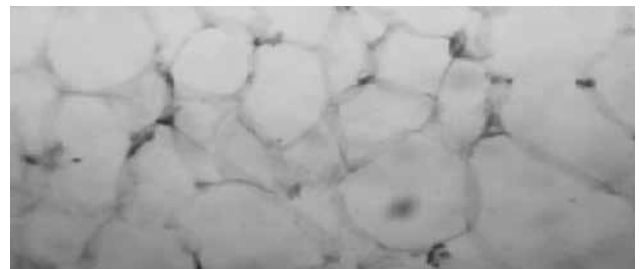


Fig 6 – Microscopic view of the specimen.

Discussion

Lipoma is slowly growing benign tumor composed of fat cells of adult type. Lipoma may be encapsulated or diffuse. They occur anywhere in the body where fat is found and earn the title of the "universal tumor" or "ubiquitous tumor". The head and neck area, abdominal wall and thigh are particularly favored sites. Lipoma is a relatively rare intraoral tumor which occurs in a variety of location, including the tongue, floor of mouth, buccal mucosa, or labial fold^[1]. It is usually found in adult older than 40 years old, generally without any sex predilection but some report their prevalence in men to be more than female^[2, 3].

The first description of an oral lesion was provided in 1848 by Roux in a review of alveolar masses; he referred to it as "yellow epulis."^[4] While most lesions are developmental anomalies those which occur in the maxillofacial region usually arise late in life and are presumed to be neoplasms of adipocytes, occasionally associated with trauma.

As with all fatty tissue, a lipoma will float on the surface of formalin rather than sink to the bottom of a biopsy specimen jar. Once present, a mucosal oral lipoma may increase to 5-6 cm. over a period of years, but most cases are less than 3 cm. Rarely, a lipoma will occur within maxillary bones or sinuses, but usually this entity is found in the buccal, lingual or oral floor regions.

Multiple head and neck lipomas have been observed in neurofibromatosis, Gardner syndrome, encephalo-cranio-cutaneous lipomatosis, multiple familial lipomatosis, and Proteus syndrome^[5]. Generalized lipomatosis has been reported to contribute to unilateral facial enlargement in hemifacial hypertrophy^[4].

It appears that the cells of the lipoma differ metabolically from normal fat cells even though they are histologically similar. Thus a person on starvation diet will lose fat from normal fat deposit of the body but not from the lipoma. Furthermore, fatty acid precursors are incorporated at a more rapid rate into lipoma than in the normal fat while lipoprotein lipase activity is reduced. The lesion appears as a single

or lobulated, painless lesion attached by either a sessile or pedunculated base. The epithelium is usually thin, and the superficial blood vessels are readily visible over the surface. Those lesions which are superficial appear yellowish. Some lesions occur deeper in the tissues and produce only a slight surface elevation. These tend to be more diffuse than the superficial type of lipoma. When palpated, the diffuse form feels like fluid, sometime leading to mistaken tentative diagnosis of cyst. Since this diffuse form often occurs in areas in which fat is normally present, the diagnosis of lipoma depends upon the recognition of simply an overabundance of this tissue. Thus the diagnosis is essentially a clinical one.

Lipoma is composed predominantly of mature adipocytes, possibly admixed with collagenic streaks, and is often well demarcated from the surrounding connective tissues. A thin fibrous capsule may be seen and a distinct lobular pattern may be present. Quite often, however, lesional fat cells are seen to "infiltrate" into surrounding tissues, perhaps producing long, thin extensions of fatty tissue radiating from the central tumor mass. When located within striated muscle this infiltrating variant is called intramuscular lipoma (infiltrating lipoma), but extensive involvement of a wide area of fibrovascular or stromal tissues might best be termed lipomatosis^[6].

Occasional lesions exhibit excessive fibrosis between the fat cells (fibrolipoma), excess numbers of small vascular channels (angiolipoma), a myxoid background stroma (myxoid lipoma, myxolipoma), or areas with uniform spindle-shaped cells interspersed between normal adipocytes (spindle cell lipoma)^[7]. When spindle cells appear somewhat dysplastic or mixed with pleomorphic giant cells with or without hyperchromatic, enlarged nuclei, the term pleomorphic lipoma is applied. When the spindled cells are of smooth muscle origin, the term myolipoma may be used, or angiomyolipoma when the smooth muscle appears to be derived from the walls of arterioles.

On occasion, lipoma of the buccal mucosa cannot be distinguished from a herniated buccal fat pad, except by the lack of a history of sudden onset after trauma. Otherwise, lipoma of the oral and

pharyngeal region is not difficult to differentiate from other lesions, although spindle cell and pleomorphic types must be distinguished from liposarcoma^[8]. When metaplastic calcified tissue is present, the lesion may be confused with soft tissue chondroma or soft tissue osteoma.

The benign neoplasm of brown fat, hibernoma, has been reported in the oral/pharyngeal region only rarely. This childhood tumor is comprised of lobules of highly vascular stroma admixed with three types of adipocytes: a large, univacuolated fat cell with a peripheral nucleus; a moderate-sized multivacuolated fat cell with scanty granular, eosinophilic cytoplasm and a centrally located rounded nucleus; and a smaller cell with the same cytoplasm but with only small circular spaces representing fat microvacuoles.

A fat tumor comprised of a central core of mature adipocytes and a peripheral envelope of cells containing variably sized fat vacuoles is called lipoblastoma. Affected cells are smaller than normal, with 1-4 vacuoles, perhaps with a light, wispy cytoplasm between vacuoles. Some cells have nuclei centrally located, as seen in the moderately-sized cells of hibernoma, while others show the nucleus to be pushed toward the cytoplasmic membrane (signet-ring cell). Mitotic activity is extremely rare and fibrous septa separate fat lobules in this tumor. An abnormality of the long arm of chromosome 8q11-13 is a rather consistent finding in the lesional cells^[9].

Conclusion

Lipoma in the oral cavity is relatively uncommon benign neoplasm of mature fat cells. It is an asymptomatic swelling with very rare chance of malignant transformation. Its diagnosis is mainly based on clinical examination. The treatment is total excision of the lesion and can be achieved in Local anaesthesia to prevent any hazards of General anaesthesia. Usually intraoral approach is preferred to prevent a conspicuous scar on the face. The lesion does not reoccur after total excision.

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