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Case Report

Oral fibrolipoma: An uncommon occurrence. A case report

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ABSTRACT

Lipomas are benign tumors, made up of mature adipocytes. They are slow in developing and there is no clear etiology. However, they are rare to occur in oral cavity and are usually present on the buccal mucosa of patients in their sixth to seventh decade. Although benign, their size can lead to functional and aesthetic problems. Therefore, it is important to differentiate an intraoral fibrolipoma from a mucocele, traumatic fibroma, pleomorphic adenoma, etc. for proper treatment and follow-up. Surgical excision is the treatment. Fibrolipoma may sometimes appear to infiltrate the adjacent tissues, which creates confusion in differential diagnosis. Hence, careful histopathological examination is mandatory and regular follow-ups.

1. Introduction

Lipoma is a benign, mesenchymal neoplasm, made up of mature adipocytes and about 20% of these occur in the head and neck region, yet oral lipomas comprise of only 1% to 4% of cases.[1] Oral lipomas were first reported and described by Roux in 1848. He referred to it as a 'yellow Epulis.[2] These are more frequent in females and commonly occur in seventh decade of life.[3] These may occur at many sites in the oral cavity like buccal mucosa, palate, tongue, major salivary glands, lips, vestibule, and the floor of the mouth, and usually present as painless, well-defined, slow-growing lesions.[1,4,5] The mean diameter in the oral cavity is 2 cm, which frequently causes difficulty in chewing and speaking and may raise esthetic concerns for the patient. The treatment is surgical excision, with the capsule. The overall recurrence rate is very low.[6] Its pathogenesis remains a dilemma, and its development is not affected by lipid metabolism and diet.[7]

Many histological variants of lipoma have been identified, which include simple lipoma, fibrolipoma (FL), angiolipoma, infiltrating (intramuscular) lipoma, pleomorphic lipoma, osteolipoma, sialolipoma, chondrolipoma, myxolipoma and spindle cell lipoma (SCL). Fibrolipoma of oral cavity is a rare histological variant.[3] Fibrolipomas account for 1.6% of all lipomas.Multiple lipomas are seen in syndromes like multiple familial lipomatosis, benign symmetric lipomatosis (Madelung disease), Gardner syndrome, and adiposis dolorosa.[5,6]

There have only been a few reports about fibrolipoma of the oral cavity. We describe the case of a patient with fibrolipoma of the lingual vestibule, in the floor of mouth.

2. Case Report

An 84-year-old female patient visited our clinic with a chief complaint of swelling of the floor of mouth. The patient was completely edentulous and had a history of wearing complete dentures since last 8 years. She noticed the swelling for the first time before 2 years, but since it did

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not cause any loosening of denture or difficulty in chewing, she did not seek any treatment. Gradually it increased in size. On further questioning, the patient reported frequent trauma from the denture in the floor of mouth while chewing and speaking. Patient had no medical history and reported no complications during past dental treatments. She had a normal gait and posture, and was well-built. Vital signs were normal. No abnormality was detected on extraoral examination.

Intraoral examination showed a single, well-defined, round, sessile swelling, of approximately 2 cm in diameter, in the floor of mouth, covered with normal, unremarkable pink overlying mucosa. (Figure 1 A) On palpation, the swelling was non-tender, firm, non-fluctuant and mobile, and it gave a positive slip sign. The provisional diagnosis was traumatic fibroma due to history of trauma from denture and location of the lesion, with a differential diagnosis of lipoma, due to the positive slip sign. Routine blood examination was normal. Informed consent was taken from the patient and the lesion was surgically excised under local anaesthesia, (Figure 1 B) followed by primary closure with 4.0 silk sutures in interrupted manner. Postoperative care instructions were given and medications were prescribed. The excised specimen was sent for histopathological examination.

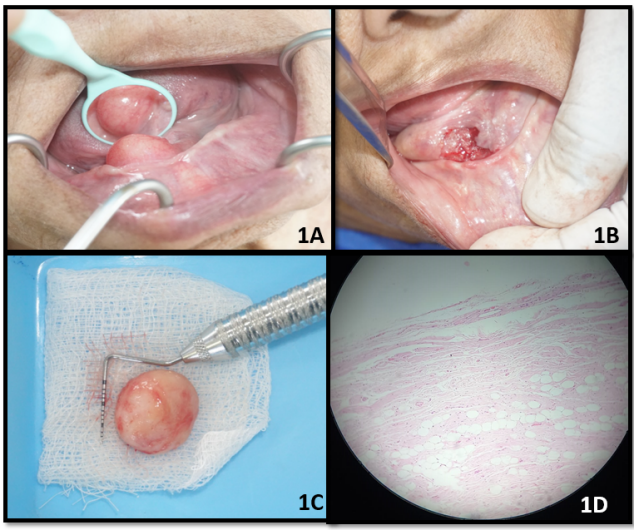

Figure 1: A): Solitary, well-defined, round, sessile swelling, of approximately 2 cm in diameter, in the floor of mouth, covered with normal, unremarkable pink overlying mucosa; **B):** The lesion was surgically excised under local anaesthesia; **C**): Macroscopic examination of the gross specimen revealed one bit of soft tissue, measuring about 1.8 × 1.8 × 2 cm^3, creamy whitish in color, firm in consistency, and round in shape with smooth surface; **D**): Connective tissue mass with plenty of lobules of matured adipocytes, interspersed by matured fibrous tissue with spindle shaped fibrocytes

Macroscopic examination revealed soft tissue, measuring approximately 1.8 × 1.8 × 2 cm^3, creamy whitish in color, firm in consistency, and round in shape with smooth surface. (Figure 1 C) Microscopic examination of the specimen revealed a well-circumscribed connective tissue mass with plenty of lobules of matured adipocytes, interspersed by matured fibrous tissue with spindle shaped fibrocytes. Areas of muscular tissue, minor salivary gland acini and blood vessels were also seen. (Figure 1 D) Hence, based on this H and E section, the final diagnosis of benign fibrolipoma was made.

Suture removal was done after 10 days and the patient's postoperative course was uneventful. No recurrence of the lesion has been observed after 6 months.

3. Discussion

Fibrolipoma is a histological type of lipoma which depicts fibrous component intermixed with lobules of adipose tissue. Various pathogenetic mechanisms have been suggested, such as origin from lipoblastic embryonic cell nests, metaplasia of muscle cells, and fatty degeneration. Other causes such as trauma, infection, chronic irritation, and hormonal imbalance also have been implicated. It has also been suggested that recurrent trauma can also trigger the proliferation of fatty tissue.[2,4,8]

The literature review revealed that oral fibrolipomas occur mostly in females and are more common in seventh decade of life.[3,9] This is similar to our case since our patient was a female too, aged 84 years. However, Manjunatha et al.[1] reported a male predilection, which is in contrast to our case report of a female. But this could be attributed to the common etiologic factor amongst their patients and ours, which was a history of wearing dentures. Lipomas are frequently associated with chronic trauma, family history, and recently described in relation to diabetes,[7] which strengthens our differential diagnosis since there is a history of trauma from denture, in our patient.

As far as the site is concerned, various studies have revealed a rare occurrence of fibrolipoma in the vestibular region. Manor E et al.,[10] conducted study on 58 cases of lipoma over a 20 years period from 1990 to 2010 and revealed only 2 cases of fibrolipoma in the vestibular region. Another study by Furlong MA et al.,[11] on 125 cases of lipoma from 1970 to 2004 revealed zero cases of fibrolipoma in the vestibule. Present case of fibrolipoma was situated in the lower lingual vestibule, therefore it is a rare clinical entity.

Classically, adipose lesions appear yellowish in color; however, this color is usually only observed in 16.3% of intraoral lipomas since most of them are covered by normal-colored mucosa as reported in the present case, and in these cases usually, it is difficult to consider lipoma in the clinical differential diagnosis.[3] MRI has proven to be useful for diagnosing lipomatous lesions of the oral cavity. Lipomas

generally display high signal intensity and appear to be well encapsulated masses on both T1- and T2-weighted images.[4]

The mainstay of management of oral lipomas and its variants is surgical excision. Since establishing a clinical diagnosis of fibrolipoma is difficult, it is important to conduct histopathological evaluation of the surgically excised lesion.[12]

Clinically, lipomas present as slow growing, pedunculated/ sessile mass with yellowish hue. They are non-tender, soft in consistency, smooth surfaced, mobile and compressible mass. Characteristically, a positive slip sign can be elicited. However, our case did not show yellowish hue but nevertheless, the growth was sessile, soft, non-tender, freely mobile, soft, with a smooth surface and a positive slip sign was elicited.[2]

4. Conclusion

Due to their low frequency, there is limited information and literature reported about the clinical features and histological variants of intraoral lipoma. For this reason, it is important to properly diagnose and clinically characterize them as well as to differentiate them from other entities with similar characteristics.

5. Source of Funding

None.

6. Conflict of Interest

None.

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