Lipoma of Oral Cavity – A Case Report and Review of Literature

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INTRODUCTION

Connective tissue neoplasms or soft tissue tumours as they are popularly called are mesenchymal neoplasms that affect any part of the body. They occur frequently in all organs including the head and neck region and the oral cavity is no exception. The frequency of their occurrence contributes to 15 - 20 % of all head and neck neoplasms and neoplasms of oral cavity form 1 - 4 % of the reported lesions,^{1,2} representing 2.2 % of all lipomas.³ In a study by Moreno SE et al. in 2016 the most frequently affected sites were the buccal mucosa followed by the lips, tongue, palate, and other areas of the oral cavity.⁴ Here we are documenting a case occurring in the buccal mucosa.

PRESENTATION OF CASE

A 43-year-old male reported to the department with the complaint of swelling and growth on the right cheek (buccal mucosa) region. History of presenting illness revealed that the swelling / growth was approximately 0.5 X 0.5 cm at the time of initial observation, 6 months ago, which had increased gradually and had acquired the present size. The swelling was not associated with constant pain, but there was occasional pain with some discomfort while talking and chewing. (Figure 1) Extraoral examination revealed no alteration of vertical or horizontal symmetry. On intraoral examination, a single, arch-shaped, sessile growth was noted on the right buccal mucosa almost at the level of the occlusal plane, which measured approximately 1.5 × 1.5 cm in diameter. It was well-circumscribed, and the surface was smooth. The colour of the growth was similar to that of the adjacent normal mucosa. There was no discharge in the form of pus or blood from the swelling and the surface was not ulcerated. Palpatory findings revealed that the consistency of the swelling was soft and the margins were smooth and there was no fixity to underlying deeper structures though the swelling was slightly compressible and was non-tender.

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CLINICAL DIAGNOSIS

Fibroma

DIFFERENTIAL DIAGNOSIS

Lipoma, Mucoceles, Epidermoid Cyst, other adipocytic tumours, Metastatic diseases, Hematoma, Sarcoidosis, Infections, Subcutaneous tumours, Vasculitis nodules, and Erythema nodosum.

Figure 1.
Photograph of the Intraoral Swelling

Figure 2.
Photomicrograph of the Lesion Showing Lobules of Adipose Tissue at 10X

Figure 3.
Photomicrograph of the Lesion Showing Round to Oval Vacuolated Cells with Peripheral Flat Nuclei at 40X

DISCUSSION OF MANAGEMENT

Treatment involved complete excision of the lesion and histopathological examination. Histopathological features showed intact stratified squamous epithelium of buccal mucosa and connective tissue stroma. Beneath the epithelium was seen an encapsulated tumour composed of large cells which were round to oval in shape. The cytoplasm was vacuolated with nuclei pressed against the peripheral cell membrane, resembling adipocytes, arranged in lobules, and admixed with delicate vasculature. No nuclear atypia, necrosis

or mitosis was noted. (Figure 2, Figure 3). By evaluating and assessing both the clinical and histological presentations, a final diagnosis of an intraoral lipoma was arrived at.

DISCUSSION

Benign mesenchymal tumours of adipose tissue are called lipomas and are often present in the body's cephalic part, trunk, and proximal portion of extremities. The earliest description of oral lipomas was proffered by Roux⁵ in the year 1848 in a review of alveolar mass where he mentioned it as "yellow epulis."⁶

Lipomas are discernible from normal body fat because their lipids are not subject to metabolism which the normal body fat undergoes; additionally, they demonstrate a tendency for uncontrolled proliferation.⁷ These lesions are relatively uncommon in the oral cavity. They account for about 15 - 20 % of all head and neck neoplasms and lipomas of the oral cavity form 1 - 4 % of benign proliferation.

The term "lipoma" comprises several different entities, including the conventional lipoma and several other histological subtypes with different clinical and histological characteristics.⁸ The aetiology and pathogenesis are still not very clearly understood; though in the earlier literatures⁹ two theories have been proposed – the "hypertrophy theory" and the "metaplastic theory".^{9,10,11}

As per the postulates of the "hypertrophy theory," lipomas occur in the oral cavity because of obesity and inadvertent growth of adipose tissue. However, the occurrence of lipomas at sites devoid of fat could not be explained under this hypothesis. The second theory, "metaplasia theory" states that the differentiation of mesenchymal cells aberrantly into lipoblasts channels the development of lipoma. It has been proposed that trauma and chronic irritation may initiate the proliferation of fatty tissues that can lead to the development of lipoma.⁹ Genetics also appears to contribute to the occurrence of lipomas. 2 % to 3 % of affected patients have been shown to demonstrate multiple lesions on their mucosa through an inherited familial pattern.¹²

A genetic association with chromosome 12 has been established in solitary lipomas due to mutation in the HMGA2 - LPP fusion gene.^{13,14} Lipomas usually occur as solitary lesions but multiple lesions have also been reported. Multiple presentations of lipomas may be seen as a manifestation of the ensuing syndromes:

- Proteus Syndrome
- Dercum disease (adiposis dolorosa)
- Familial multiple lipomatosis
- Benign symmetric lipomatosis (Madelung disease)
- Gardner syndrome.
- Multiple endocrine neoplasia (MEN) type 1.
- Cowden syndrome.
- Bannayan - Riley - Ruvalcaba syndrome (BRRS)

However, in the present case, the patient had a history of mechanical irritation or trauma to the lesion during mastication. The initiation of this lesion due to mechanical trauma was of importance as it ruled out genetic involvement and further assessment of the patient was not needed.

This information was very important to both, the clinician and the patient, to predict prognosis and prevent recurrence

of the lesion. Complete surgical excision of the lesion is of prime concern as it affects the prognosis and recurrence after treatment. There is an excellent prognosis when benign lipomas are completely excised. Recurrence is not a concern if the excision is completely done though it may recur if surgical removal is incomplete.

CONCLUSIONS

Intraoral lipomas, though infrequent in occurrence should not be viewed casually and adequate history along with proper excision of the lesion leads to an uneventful postoperative cure.

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