Fibrolipoma of Lip in a Young Individual: A Rare Presentation

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ABSTRACT

Lipomas are tumors of mature adipose tissue. They are commonly seen in the upper extremities, neck, shoulders, and trunk region. However, oral lipomas are relatively rare. They particularly occur in the areas of fat accumulation, especially the cheek, followed by the tongue, floor of the mouth, buccal sulcus and vestibule, lip, palate, and gingiva. Lipomas can be histopathologically classified into classic lipoma and its variant forms, such as fibrolipomas, spindle cell lipomas, intramuscular lipomas, angiolipomas, salivary gland lipomas, pleomorphic lipomas, myxoid lipomas, and atypical lipomas. There have only been a few cases reported on fibrolipoma involving the lower lip in young individuals. Herein, we present a case report on oral fibrolipoma of the lower lip in a 20-year-old female.

Keywords: Fibrolipoma, Lipoma, Lower lip

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INTRODUCTION

Lipomas are relatively rare in the oral cavity, accounting for 1 to 4.4% of all benign tumors.1,2 Fibrolipoma is a variant of conventional lipoma. Most patients with this lesion are 40 years of age or older.3,4 It usually presents as soft, smooth-surfaced nodular masses that can be sessile or pedunculated.4 It is an uncommon histological variant of the classic lipoma, in which neoplastic fat cells are embedded within dense collagen.5

Their etiology and pathogenesis remain unclear, although mechanical, endocrine, and inflammatory influences have been reported.6 It is suggested that the precursors of adipose cells resemble fibroblasts and that their fat content is acquired by the imbibition of soluble fat or by intracellular elaboration.4 It is also believed that the fibroblastic component develops, independently from the fat cells, from mesenchymal cells as an intrinsic component of the lipomatous tumour. If fat cells and fibroblasts arise from the same prototype cell, this variant of a lipoma is explicable. Other combinations between lipoblastic tissues and mesenchymal structures are also possible.4

Histologically, lipomas are classified as simple lipoma or variants, such as fibrolipoma, spindle cell lipoma, intramuscular or infiltrating lipoma, angiolipoma, salivary gland lipoma (sialolipoma), pleomorphic lipoma, chondroid lipoma, osteoid lipoma, and atypical lipomas.5,7

Thus, in this article, we report a case of a fibrolipoma of the lower lip occurring in a young individual.

CASE REPORT

A 20-year-old female patient reported to the Department of Oral Pathology and Microbiology, Mahatma Gandhi Mission’s Dental College and Hospital, Navi Mumbai, Maharashtra, India, with the chief complaint of a painless swelling in the right lower lip region. The swelling was noticed by the patient 2 to 3 years earlier, which gradually increased to the present size. The patient gave a history of lip biting; there was no relevant medical history. Intraoral examination revealed a solitary sessile swelling on the right labial mucosa, which was pink in color, soft-to-firm in consistency, and measuring approximately 3 × 2 cm (Fig. 1).

Fig. 1: Intraoral view of solitary sessile swelling on the right lower lip (arrow) showing traumatic ulcerations (arrowhead)
The mucosa over the lesion showed ulcerations. A clinical differential diagnosis of fibroma, mucocele, and lipoma was made. However, other rare lesions of the lower lip reported in literature, which include schwannoma, traumatic neuroma, and salivary gland neoplasms were also considered in the clinical differential diagnosis.

The lesion was surgically excised under local anesthesia (Fig. 2) after performing routine blood investigations. After the excision, the tissue was fixed in 10% neutral buffered formalin and sent for histopathological examination.

On macroscopic examination, the single bit of tissue was oval in shape, lobulated with a smooth surface, and soft in consistency (Fig. 3). On histopathological examination (Figs 4 to 6), the hematoxylin and eosin (H&E)-stained soft tissue sections showed parakeratotic stratified squamous epithelium with underlying dense fibrous connective tissue stroma. Denudation of the overlying epithelium is also evident.
squamous epithelium. The underlying connective tissue stroma showed diffuse aggregates of mature adipocytes with intervening areas of fibrosis. Thus, a diagnosis of fibrolipoma was ascertained.

DISCUSSION

Lipomas are benign, soft tissue neoplasms of adipose tissue origin and are relatively uncommon in the oral cavity, representing about 1 to 4.4% of all benign oral lesions. Fibrolipomas are a rare histopathologic variant of lipoma. They exhibit excessive fibrosis between the fat cells and thus, are termed as fibrolipoma. Most patients with fibrolipoma are of an older age. Our case report presents a lower lip fibrolipoma in a 20-year-old female patient making it a rare presentation. The site of the lesion was also unusual, presenting on the lower lip. To the best of our knowledge, there are eight case reports in the literature in which lip fibrolipomas have been reported, out of which four have been reported to be involving the lower lip, one case involving the upper lip, and three cases where only the lip as the site is mentioned. A brief review of fibrolipoma of the oral cavity involving the lip is summarized in Table 1.

Histologically, lipomas are classified as simple lipoma or variants, such as fibrolipoma, spindle cell lipoma wherein spindle cells are observed, intramuscular or infiltrating lipoma often are more deeply situated and have an infiltrative growth pattern that extends between skeletal muscle bundles, angiolipoma in case of excess vascular channels, salivary gland lipoma (sialolipoma), pleomorphic lipoma, myxoid lipoma exhibiting a mucoid background, chondroid lipoma when chondroid stroma is evident, osteoid lipoma when osseous metaplasia is present, and atypical lipomas. In our case, diffuse aggregates of mature adipocytes with intervening areas of fibrosis were seen histopathologically. Thus, it was diagnosed as a fibrolipoma.

The pathogenesis of fibrolipoma remains unclear, although various hypotheses are put forward. It has been thought to be congenital, to be caused by endocrine imbalance, or to be the product of a degenerated fibromatous tumor, arising from maturation of lipoblastomatosis. In the literature on etiology of fibrolipoma of the tongue, an alteration of the lipid metabolism or an anomalous localization of the fatty-fetal tissue in the tongue has been suggested. Ashley (1978) believed the fibroblastic component develops, independently from the fat cells, from mesenchymal cells as an intrinsic component of the lipomatous tumor. It is thought that repeated mild trauma may trigger fatty tissue proliferation as described by Kiehl beneath a complete mandibular denture. Our case was in accordance to this theory as it was associated with history of lip biting.

Surgical excision is the line of management in case of lipomas and its variants. Histopathological examination of the excised tissue is a must to determine the correct diagnosis. Prognosis of fibrolipoma is good. Recurrence is quite rare. In our case, surgical excision of the lesion with a follow-up of 6 months showed no recurrence (Fig. 7).

CONCLUSION

According to the literature, fibrolipoma of lower lip in a young individual is quite rare. Since the lower lip is composed of heterogeneous mass of tissues that can give rise to diverse lesions, surgical excision with histopathological examination is paramount in the final diagnosis.
REFERENCES


