

# Fibrolipoma of Buccal Mucosa – Rarest Variant

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## Abstract

Lipoma is a common subcutaneous benign tumor originating from mesenchyme by the proliferation of adipose cells. Fibrolipoma is a histological variant of lipoma that involves the proliferation of adipose cells along with supporting fibrous tissue. Fibrolipoma of the oral cavity is a rarely occurring lipoma mainly on buccal mucosa causing functional and cosmetic issues. They are more frequent in males than in females. This case report involves the case of a 54-year-old female with fibrolipoma on the left buccal mucosa which was surgically excised.

**Keywords:** Adipocytes, Fibrolipoma, Histology, Lipoma.

## INTRODUCTION

A benign soft-tissue tumor of mesenchymal origin made up of mature adipocytes is known as a lipoma. The head and neck region are involved in 15–20% of patients, and the oral cavity is affected in 1–4% of cases.<sup>[1]</sup> Oral lipomas account for 0.5–5% of all benign tumors of the oral cavity and usually present as painless, well-circumscribed, slow-growing submucosal, or superficial lesions located primarily on the oral mucosa.<sup>[2]</sup> Oral lipomas most frequently occur in the buccal mucosa and buccal vestibule, while they are less frequently found in the lips, tongue, and floor of the mouth.<sup>[3]</sup>

Histologically, there are several different types of lipomas, including fibrolipoma, spindle cell lipoma, intramuscular or infiltrating lipoma, angiolipoma, salivary gland lipoma, pleomorphic lipoma, myxoid, and atypical lipomas.<sup>[4]</sup> The fibrolipoma is extremely uncommon, but because of its histological features, it occasionally raises questions about the differential diagnosis of infiltrating lesions.<sup>[5]</sup>

## CASE PRESENTATION

A 54-year-old female patient came to the department with a chief complaint of swelling on her left buccal mucosa for 2 years. The swelling was first noticed 2 years back and it exhibited gradual enlargement (Figure 1). The patient gives a history of pain and discomfort during speech and mastication due to swelling. Intraoral examination revealed pale pink-colored ovoid swelling on the left buccal mucosa.

On palpation, the swelling was firm in consistency, non-fluctuant, sessile, and mobile. On the basis of the patient's history and clinical examinations, the provisional diagnosis was an irritational fibroma.

The lesion was excised under local anesthesia using a scalpel (Figure 2). The excised specimen appeared to be encapsulated, soft, and pinkish. It was 5 × 7 mm in measurement (Figures 3 and 4).

The excised specimen was sent to the Department of Oral Pathology for histopathological evaluation.

## HISTOPATHOLOGY

Tissue processing was done. Microscopically it showed stratified squamous keratinized epithelium of varying thickness and underlined connective tissue stroma (Figure 5a and b).

The connective tissue stroma with numerous densely packed bundles of collagen fibers containing spindle-shaped fibroblasts are seen (Figures 5b and 6a).

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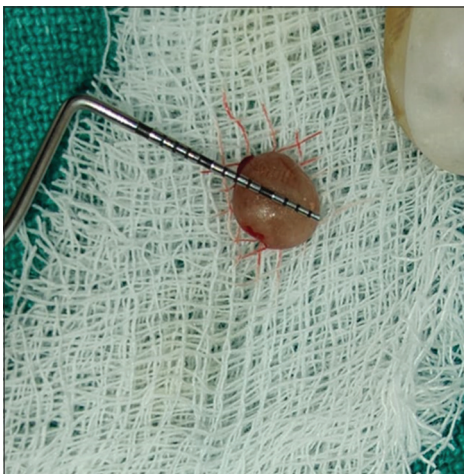
**Figure 1:** Pre-operative intraoral view of lesion



**Figure 4:** Follow-up after 10 days

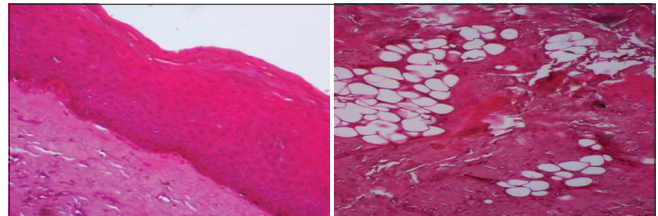


**Figure 2:** Surgical excision of lesion using scalpel

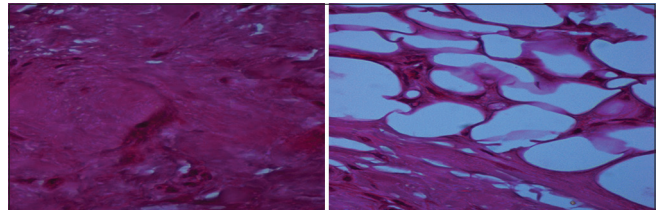


**Figure 3:** Excised lesion was soft, pink in color, and 5 × 7 mm in size

In deep connective tissue at many places, a nest of vacuolated cells with eccentrically placed nucleus resembling adipose tissue is seen (Figures 5b and 6b).



**Figure 5:** (a) (H&E stain) under 10× view stratified squamous keratinized epithelium are shown (b) H/F (H&E stain) under 10× view connective tissue stroma is shown.



**Figure 6:** (a) H/F (H&E stain) under 40× view spindle shaped fibroblasts are shown (b) H/F (H&E stain) under 40× view nests of vacuolated cells with eccentrically placed nucleus resembling adipose tissue are shown.

Chronic inflammatory cell infiltrates predominantly lymphocytes and plasma cells are depicted in some places (Figures 5a and b, 6a and b).

Overall histopathological features were suggestive of fibrolipoma.

## DISCUSSION

A benign soft-tissue tumor called a lipoma is composed of mature lobulated adipocytes that are separated by fibrous bands.<sup>[3]</sup> In 1848, Roux described the first instance of lipoma, referring to it as “yellow epulis.”<sup>[6]</sup> Superficial oral lipomas appear yellow and therefore can be easily diagnosed but deep-seated oral lipomas appear pink and are rarely diagnosed early as they are often asymptomatic till they attain considerable

size.<sup>[7]</sup> Lipomas are clinically presented as a sessile or pedunculated slow-growing, freely movable mass and can have a yellow hue in a few cases depending on the degree of fibrosis and depth of localization.<sup>[8]</sup> If the lesion is not traumatized, it is smooth and non-ulcerated at the surface.

In 55–75% of lipomas, chromosomal aberrations are seen mostly being 12q,13p, and 6p translocation.

The metabolism of lipoma fat cells differs from that of regular fat cells during starvation. As with characteristic physiological fat accumulation, lipoma does not cause fat to be eliminated. Lipid present in the fat cells of lipoma is not available for metabolism.<sup>[9]</sup>

Juliassé in 2010<sup>[10]</sup> conducted a study in the Brazilian population which showed predominance in females (2.4:1) mainly in the sixth and seventh decades of life. The most affected site was buccal mucosa (53.7%) followed by buccal sulcus (14.6%) and tongue (9.8%). The range of size of the lesion was 0.5–10 cm. The following variants can be seen histologically: Lipoma (41.5%), fibrolipoma (34.1%), spindle cell lipoma (9.8%), sialolipoma (9.8%), osteolipoma (2.4%), and chondrolipoma (2.4%).

Fibrolipomas can develop from maturing lipoblastomatosis or they can be congenital tumors caused by endocrine imbalance as a result of degenerating fibromatous tumors.<sup>[11]</sup> It is mostly seen on the buccal mucosa followed by the buccal vestibule predominantly in females.<sup>[9]</sup> Fibrolipomas typically affect people between the ages of 3 and 56, with a mean age of 34.<sup>[6]</sup>

Since fibrolipoma is asymptomatic, patients only seek therapy when the lesion becomes large and causes cosmetic, speech, or mastication problems. In the case of esophageal fibrolipoma, obstruction of the upper airway leading to asphyxia death is also reported. Few cases were reported where fibrolipomas were converted to liposarcoma.<sup>[9]</sup>

Microscopically, in fibrolipoma, broad band of dense collagen along with lobules of “chicken wire” appearing adipocytes can be seen. Differential diagnoses for fibrolipoma include a variety of benign and malignant mesenchymal tumors, including

fibromas, simple lipomas, and salivary gland tumors. The most useful imaging modality for determining whether these lipomas are present is magnetic resonance imaging.<sup>[9]</sup>

All histological variations of lipomas are always treated with surgical excision, which has a very low recurrence rate. Lipoma capsule removal is necessary to stop recurrence.<sup>[7]</sup>

## CONCLUSION

Fibrolipoma is a rarely occurring variant of oral lipoma that comprises adipose cells with fibrous tissue. Since it has a rare recurrence rate and is not associated with any syndrome or systemic disease, a gradual increase in the size of a lesion may lead to complications. To prevent those complications, early diagnosis, and surgical excision are necessary.

## REFERENCES

1. Devi AN, Sowbhagya MB, Balaji P, Mahesh Kumar TS. An uncommon case of fibrolipoma. *Indian J Dent Res* 2017;28:699-701.
2. Bandéca MC, de Pádua JM, Nadalin MR, Ozório JE, Silva-Sousa YT, da Cruz Perez DE. Oral soft tissue lipomas: A case series. *J Can Dent Assoc* 2007;73:431-4.
3. Sadrabad MJ, Sohanian S, Behrad S. Oral fibrolipoma: A report of two cases. *Middle East J Rehabil Health Stud* 2020;7:e98307.
4. Sugiyama K, Washimi K, Sato S, Hiruma T, Sakai M, Okubo Y, *et al.* Differential diagnosis of lipoma and atypical lipomatous tumor/well differentiated liposarcoma by cytological analysis. *Diagn Cytopathol* 2022;50:112-22.
5. Iaconetta G, Friscia M, Cecere A, Romano A, Orabona GD, Califano L. Rare fibrolipoma of the tongue: A case report. *J Med Case Rep* 2015;9:177.
6. Girish KL, Joseph TI, Sathyan P, Akhil S. Oral fibrolipoma: A rare histological variant. *Oral Maxillofac Pathol J* 2017;8:56-9.
7. Mansoor S, Yaqoob N, Haneef A, Sham S, Arain AA. Fibrolipoma of tongue: A rare entity. *J Coll Physicians Surg Pak* 2022;32:814-6.
8. Greer RO, Richardson JF. The nature of lipomas and their significance in the oral cavity. A review and report of cases. *Oral Surg Oral Med Oral Pathol* 1973;36:551-7.
9. Amale KA, Chaudhari NT, Bafna SS, Umarji HR. Fibrolipoma: A rare entity-case series. *J Indian Acad Oral Med Radiol* 2015;27:588-92.
10. Rajeev R, Beena V, Indu G, Choudhary K, Devu A. Fibrolipoma of floor of the mouth of 20 years of duration. *Clin Cancer Investig J* 2014;3:394-7.
11. Chavan S, Ingle Y, Deshmukh R, Kulkarni V. Fibrolipoma-a rare intraoral tumor: A case report. *J Dent Allied Sci* 2013;2:83.