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CASE REPORT

# An atypical manifestation of mucocele - A case report

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## Abstract

Mucocele is a painless benign swelling in the oral cavity caused by a blockage of salivary gland or its duct. Although they are painless but may cause difficulty to patients for eating and speaking. Most mucoceles are visually identifiable. Only a few of mucoceles do not require any special treatment, and most of them can be removed by surgical excision. Mucoceles most commonly affect young patients. Usually, extravasation mucoceles are located in the lower lip and retention mucoceles can be seen at any site in the oral cavity. Trauma is the main causative factor involved in the formation of mucoceles. It is essential to visually recognize mucocele, for its proper treatment. This article reports a case of mucocele in a patient with sudden trauma on the lower lip. It was clinically diagnosed as traumatic fibroma because of its atypical presentation which was treated by surgical excision.

## Introduction

Mucocele develops following retention or extravasation of mucous in the subepithelial connective tissue from the salivary gland and duct.[1] Mucocele is a benign lesion of the oral cavity that0commonly results from a change in the minor salivary glands because of collection of mucous causing a swelling or growth.[2] They appear as non-tender, bluish, fluctuant submucosal swelling, or growth with overlying mucosa being normal. Mucocele is of two types, extravasation and retention. Retention mucocele occurs due to mucus retained in the duct and/or acini as a result of duct obstruction.[3,4] Extravasation mucocele occurs due to tear in the salivary gland duct and which results in the spillage of mucous into the subepithelial connective tissue around the gland.[5] Clinically, it is difficult distinguishing between extravasation and retention type of mucocele. Mucocele in the floor of the mouth is called as a "ranula" because of its appearance as "frogs belly." Superficial or classical mucocele does not have epithelial lining. Location of superficial mucocele is under the mucous membrane. Classical mucocele is shown in the upper submucosa.[3,6]

## Case Report

A male patient aged 21 years reported to the department of oral medicine and radiology with the chief complaint of growth on the left lower lip due to sudden trauma 1 day back due to lip biting. Medical history was non-contributory. The patient was moderately built and nourished. Extraoral examination revealed no facial asymmetry.

Intraoral examination revealed a solitary growth on the lower left labial mucosa measuring about 0.5 cm in diameter round in shape having a pedunculated base [Figure 1]. The surface over the growth appears smooth shiny and erythematous. Palpation of the growth confirms all inspectory findings. The growth was firm in consistency, non-fluctuant, non-reducible, and non-tender. On relating the clinical history with the examination, a provisional diagnosis of traumatic fibroma of the lower left labial mucosa with the differential diagnosis of pyogenic granuloma, mucocele, and lipoma was made. Excisional biopsy was advised [Figures 2 and 3]. The excised lesion was sent for histopathological examination which revealed soft tissue devoid of epithelium. Fibrovascular connective tissue stroma shows granulation areas with chronic inflammatory infiltrate consisting of lymphocytes, plasma cell, and mucinophages. Mucin spillage and pooling are shown with endothelial lined blood vessels surrounded by fibrous septa, suggestive of "extravasation type of mucocele."

On the basis of histopathological report and clinical findings, a final diagnosis of extravasation mucocele of lower left labial mucosa was made. The patient is under follow-up.

## Discussion

Mucocele clinically appears as a slow growing, painless, and fluctuant growth or swelling that occurs due to mucus extravasation or mucous retention from the salivary gland. It is a common benign cystic lesion, ranked 17$^{th}$ most common salivary gland lesion and the 2$^{nd}$ of most common soft tissue

**Figure 1:** Intraoral view showing growth in the lower left labial mucosa

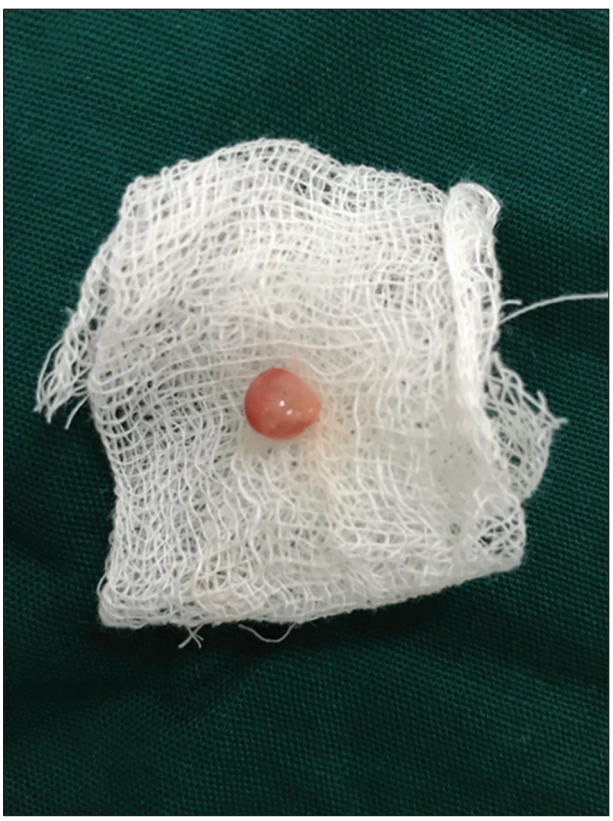

**Figure 2:** Excised lesion

tumor occurring in the oral cavity.[4] Incidence of mucocele is 2.5/1000 patients. Usually, it occurs in the second decade of life. It is a rare occurrence among children and infants under the age of 1 year.[7] It usually occurs as an solitary lesion, although superficial mucocele can clinically be present as single blister or multiple blisters.[8] Mucocele is described as a dome shape growth or swelling with intact epithelium over it; however, in the current case, there was a single and round-shaped growth.

**Figure 3:** Post-operative intraoral site

Literature reveals equal number of incidence in women and men, whereas there are studies with reports of slightly higher prevalence in females of about 1.3:1.[9]

Mucocele is a lesion of minor salivary glands and duct system, which are non-neoplastic in nature.[10] It occurs rarely in the parotid, sublingual and submandibular salivary glands.

Most of the patients give a history of spontaneous development 71.4%, followed by lip biting 25.7% and trauma 2.9% being the cause of origin of mucocele as per literature. Lip biting is common contributory factor for an oral mucocele to occur.[11] In this current case, there was a sudden development of the lesion due to trauma on the lower labial mucosa. The diagnosis is principally based on clinical examination, which usually presents as a bluish, transparent swelling having a soft and cystic consistency. However, the reported case did not have the classical representation. It appeared as a growth having a smooth and shiny erythematous surface which was firm in consistency which led us to the diagnosis of traumatic fibroma.

Mucocele is mostly a self-limiting condition which heals, few days after getting ruptured. There are three conventional surgical approaches to the management of mucocele in palate, cheeks, and lips, i.e., excision, marsupialization, and dissection.[12,13]

Another effective method in the treatment of mucocele is cryosurgery.[14]

Intralesional injection of corticosteroids has an important role in the treatment of mucocele. The first aspiration of the cyst fluid is done followed by single intralesional injection of steroid. This results in collapse of pseudocyst wall. This results in an inflammatory reaction of the wall with fibrosis.[15]

In our case, there was sudden trauma 1 day back due to lip biting which resulted in the development of solitary mucocele. It appeared as a growth having a smooth and shiny erythematous surface which was firm in consistency and therefore presenting an atypical clinical manifestation of mucocele.

## Conclusion

Mucocele is a self-limiting condition of the oral mucosa, which is mostly benign in nature. In our case report, there was unusual presentation of extravasation type of mucocele, i.e., it was firm growth associated with a history of sudden trauma. It was managed by complete excision of the growth with uneventful healing. Managing mucocele is a challenge because of greater chances of recurrence. However, if regression does not occur spontaneously, then in such cases, surgical excision can be done with removal of causative minor salivary gland can give better prognosis with no sign of recurrence.

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