Oral Mucocele on Lower Lip - A Case Report

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Abstract: Mucocele is a common salivary gland disorder that can appear in the lacrimal sac, paranasal sinuses, oral cavity, appendix, or gallbladder. These lesions occur due to mucus accumulation resulting from the alteration of minor salivary glands. Lower lip is the most common site of occurrence of these lesions in the oral cavity and most probable cause is trauma or habit of lip biting. Mucoceles most probably affect young patients but can affect all the age groups. They may have a soft consistency, bluish, and transparent cystic swelling, history of bursting and collapsing due to which resolves themselves then refilling which may be repeated. The treatment of choice is surgical removal of the mucocele.

Keywords: Diagnosis, excision, lower lip, minor salivary glands, mucocele, mucous cyst

1. Introduction

The term mucocele is derived from a Latin word, mucus and cocele means cavity.[1] This is defined as mucus-filled cavities, which can appear in the oral cavity, appendix, gallbladder, paranasal sinuses, and lacrimal sac.[2,3]. Mucocele is the 17th most common salivary gland lesion seen in the oral cavity.[4]. Mucocele is painless and have a tendency to relapse.[5,6] This is the result of accumulation of liquid or mucoid material due to the alteration in the minor salivary gland which causes inflammation,[7] which are characterized by a rounded, transparent, bluish-colored lesion and well-circumscribed of variable size.

Mucocele is subdivided into two types:
1. Mucus extravasation type, which is regarded as being a result of trauma, such as lip biting.
2. Mucus retention type, which results from the obstruction of the duct of a minor and/or accessory salivary gland [2,9 & 10] Mucocele manifest within few days after minor trauma with diameter ranging from few millimeters to few centimeters, and persist unchanged for months unless it is treated. If not intervened, an episodic decrease and increase in size may be observed, based on rupture and subsequent mucin production.[2,11]

2. Case Presentation

Case- A 17 year old boy reported a complaint of swelling on the right side of lower lip since 5 months and history of lip biting. He first noticed the swelling 5 months ago, initially swelling was small and then was gradually to attain the present size, there was no history of systemic disease.

On intraoral examination, solitary, a round, fluctuant swelling was seen on the inner aspects of the lower lip at the right central incisor region (Fig.A) swelling was 3-4 mm below the vermilion border of the lower lip and extending inferiorly towards the lingual vestibule. Lesion is approximately 2 x 1 cm.

Fig.(A) Mucocele on lower lip
in size, color of the swelling same as adjacent mucosa. No other oral anomalies were detected and also there were no difficulty in chewing and speaking.

**Treatment:** There are various treatment modalities such as surgical excision, cauterization, and laser excision were explained to the patient’s guardian and obtained willingness to perform the most advanced treatment option of laser excision. Using minimal infiltration of lignocaine local anaesthesia, the lesion was excised using a soft diode laser whose wavelength is 950nm, 400 µm diameter tip at 1.5 watt in continuous mode. The incision was placed on the upper most site of the lesion & complete excision were performed (Fig.B). The analgesic medicine named tab. Ketorol DT SOS was prescribed to the patient for 5 days and the patient was advised to Stop his habit of lip biting. Patient was recall after five days of treatment for follow up. No complications.

![Fig.(B) After mucocele excision](image)

3. **Discussion**

Mucoceles, of minor salivary gland origin, is one of the common mucosal lesions affecting the general population. Trauma and obstruction to the salivary gland duct are the two main etiological factors responsible for the lesion. There are two types of mucocele which has different etiological factors, that are painless, asymptomatic swellings that have a relatively rapid onset enlarge and then appear to involute because of the rupture of the contents into the oral cavity or resorption of the extravasated mucus or retention of the mucin. The patient may relate a history of recent or remote trauma to the mouth or face, or the patient may have a habit of biting the lip. The duration of the lesion is usually 5 months; however, it may vary from a few days to several years in exceptional instances. Often, an individual may rupture or unroof the vesicles by creating a suction pressure. In such situations the affected individuals report a chronic and recurrent history. There are few strong contributing factors that aids in the diagnosis of mucocele such as the appearance, clinical findings; consistency. Literature suggests that lip biting is one of the common factor responsible that causes mucocele. The role of radiograph has minimal contribution, ruling out for any calcified structure such as sialolith would definitely contribute to the pathogenesis for the type of mucocele especially for the Retention type. Conventional surgical removal is the most common method used to treat this lesion. Other treatment options include CO2 laser ablation, cryosurgery, intralesional corticosteroid injection, micro marsupialization, and electrocautery. Histopathologically the extravasated type is not lined by the epithelium (pseudocyst) and in case of retention type (true cyst) it is lined by epithelium. In our case report correlation of the clinical findings, history of lip biting. The importance of this article is clinically the lesion is mistaken for benign salivary gland tumors and salivary gland duct cyst that requires a different treatment plan.

4. **Conclusion**

Mucocele is the most common benign self-limiting nature. Trauma and habit of lip biting is the most common cause and therefore identification and treatment of the associated habits becomes essential. Majority of these lesions are seen in the lower lip which can be
un-aesthetic to the patient and disturbing in function. Recent laser excision is the treatment of choice which was done with care. This is the best treatment that can relieve the patient from discomfort and anxiety.

References