

Case study

MUCOCELE ON LOWER LIP: A CASE REPORT

Abstract

Mucocele is the most common cystic lesion of the oral mucosa. The reason is trauma, lip biting habits, or minor salivary gland alterations that lead to the accumulation of mucus. The lower lip is the most common site or in the oral mucosal sites such as lip, cheeks, and the floor of the mouth. Adolescents are the most commonly affected among all the age groups. Diagnosis depends on clinical and histopathological investigations. The lesion usually appears as bluish and transparent cystic swelling. Surgical excision is the first line of treatment. This case report represents a case of mucocele in a young male patient treated by conventional surgical excision.

Key Word: Minor salivary glands, Extravasation type, Retention type, Mucocele.

INTRODUCTION

Mucoceles are lesions that are filled with mucus in the oral cavity. In salivary glands, any kind of minor alterations can cause the formation of swelling which leads to the formation of mucocele. Origination of the word mucocele comes from a Latin word, 'muco' which means 'mucous', and cavity denotes 'coele' as described by Yagüe-García et al, 2009. The seventeenth commonest lesion of the salivary gland is known as 'Mucocele'. These lesions originate in the cheeks, tongue, palate, and floor of the mouth but the most common area is the lower lip. If these lesions are situated on the floor of the mouth, they are referred to as 'ranulas'.^{3,4,6,8}

If there is any disturbance in the salivary flow secretions, this leads to mucocele formation. The main causative factors are obstruction of the excretory duct followed by sialolith of the salivary glands, periductal scarring/ fibrosis, and tumor among which trauma is one of the major etiological factors for the development of mucocele.^{6,11}

Clinically mucocele manifests as an asymptomatic pink or bluish-color vesicles bulla and its size may differ from 1 mm to several centimeters and can affect equally in all age groups of both genders. Usually, 10-20 years is the peak age of the prevalence. Mucocele is illustrated as a round, well-circumscribed painless swelling with a soft consistency that fluctuates during palpation.

Mucocele is divided into two categories Mucus extravasation type and Mucus retention type.

The etiological factors include trauma due to lip biting or obstruction of the minor or accessory salivary duct.

Comment [N1]: Merge with etiology discussed already above

Extravasation mucocèles are associated with lower lips, on the other hand, retention mucocèles can develop at any part of the oral cavity. Generally, they are asymptomatic but can be discomfort during speech, mastication, chewing, and deglutition.^{2,5,7}

Treatment modalities include surgical excision, marsupialization, CO₂laser, ablation, cryosurgery, intralesional corticosteroid injections, and electrocautery as described by López-Jornet et al, but the most conventional method used is surgical excision.^{1,7,11}

Some of the methods are described below in detail

- 1. Surgical Excision:** The most preferred method is the surgical excision of lesions along with associated minor salivary glands as the chances of recurrence are comparatively low.
- 2. Aspiration:** This is not a very well-preferred method as the recurrence rate is comparatively higher when compared with other treatment options.
- 3. Marsupialization:** This procedure is performed for extensive lesions. Micro Marsupialization is done for lesions smaller than 1 cm in diameter which has been reported mainly in pediatric patients
- 4. Other methods:** Laser Ablation, Cryosurgery, and Electrocautery.

CASE REPORT

A 19-year-old male reported to the Department of Periodontology with the chief complaint of swelling in his right lower lip. There was a presence of Swelling approaching towards the inner area of the lower lip irt 41,42 for three months with a history of trauma in his lower lip. No significant medical history was reported.

During the intraoral examination a well-defined dome-shaped, oval swelling with a smooth surface and a bluish translucent tint, measuring approximately 3×2 cm was observed on the lower lip, 4 cm away from the labial vestibular depth in relation to 41,42. On palpation, consistency was found to be soft and compressible, non-tender, non-pulsating and no temperature increase was noted. Swelling extended 2–3 mm below the vermilion border of the lower lip, inferiorly towards the lingual vestibule. Furthermore, no other abnormalities were detected. The provisional diagnosis was based on the clinical findings. A circumferential incision was given using a scalpel after local anesthesia administration. Excision of the lesion was done surgically and sent for histological examination. Interrupted sutures were given and the patient is recalled after 1 week for suture removal. Histopathological analysis confirmed the diagnosis as a mucocoele. The patient was recalled for a 3-month follow-up, there was no recurrence of the lesion.



1. Preoperative



2. Surgical removal of the lesion



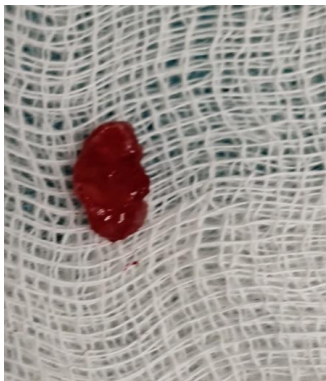
3. Instrumentation



4. Postoperative



5. Sutures placed



6. Excised tissue



7. Follow up after 3months

DISCUSSION

Mucocele is a cystic lesion of minor salivary glands containing mucus ~~in the oral cavity,~~
~~however the knowledge about it~~ though mucocele formation is ~~limited~~ not clear.

According to Yamasoba et al. 1990 i.e., Trauma and salivary gland obstruction are considered as two major etiological factors. According to Chaudhary et al., the formation of mucocele is due to the escape of mucus into the surrounding tissue because of the severed salivary duct. The appearance of mucocele has distinct characteristic features. Mucocele is diagnosed by clinical findings, history of trauma, ~~location~~ and location of the lesion.

The differential diagnosis of mucocoele is done by Fine needle aspiration biopsy (FNAB) and the diagnosis is confirmed by histopathologic investigations. The most common widely accepted method to treat mucocoele is the surgical excision of the lesion along with the associated gland to avoid the chances of recurrence.^{1,9,10}

CONCLUSION

Mucocoele is one of the most common benign lesions and self-limiting in nature. Mostly trauma and habitual lip biting are considered as etiological factors. Mucocoele presents itself as asymptomatic swelling in the oral cavity. Speech, mastication, deglutition are the problems associated with large-sized lesions. The recurrence rate is comparatively lower with complete excision of the lesion whereas recurrence chances are higher with an aspiration of the cyst and marsupialization.

REFERENCES

1. Textbook of Oral Medicine Ghom; Anil Ghom, 1st edition.
2. Nallasivam and Sudha: Oral mucocoele: Review of literature and a case report; Journal of Pharmacy and Bioallied Sciences August 2015 Vol 7 Supplement 2.
3. Indian Dermatology Online Journal | Volume 8 | Issue 3 | May-June 2017.
4. Senthilkumar and Mahaboob: Mucous extravasation cyst: A rare presentation, Journal of Pharmacy and Bioallied Sciences Vol 4 August 2012 Supplement 2 - Part 1.
5. Chaitanya, *et al.*: Lower lip mucocoele© 2017 Indian Dermatology Online Journal Published by Wolters Kluwer – Medknow.
6. Oral mucocoele: a review of the literature, J Ata-Ali1; J Clin Exp Dent. 2010;2(1): e18-21.
7. Mucocoele – A study Jani, *et al.*, Indian J Dent Res, 21(3), 2010.
8. Baurmash HD. Mucocoeles and ranulas. J Oral Maxillofac Surg 2003; 61:369-78.
9. Rao PK, Hegde D, Shetty SR, Chatra L, Shenai P. Oral Mucocoele – Diagnosis and Management. J Dent Med Med Sci. Nov 2012; 2:26-30.
10. Shivapathasundharam B. Physical and chemical injuries of the oral cavity. In: Rajendran R, Shivapathasundharam B, editor. Shafer's

Textbook of Oral Pathology, 6th ed. Noida: Elsevier; 2009. p. 517-69.

11. Oral Mucocele – Diagnosis and Management, Rao et al; Journal of Dentistry, Medicine and Medical Sciences Vol. 2(2) pp. 26-30.

UNDER PEER REVIEW