



Oral Mucocele: A Case Report

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ABSTRACT – Mucocele is one of the most common lesions of the oral mucosa caused by accumulation of mucus secretion resulting either due to trauma and lip biting habits or any alteration of the minor salivary glands .They are mainly categorized into two types based on the histopathology: Extravasation and Retention. They occur extensively in the oral mucosa but the sites of common occurrence include lips, cheeks and the floor of the mouth with the lip being the region of predominance. The mucocele can affect all the age groups but are more commonly found in younger individuals . They show a diverse presentation : sometimes showing a soft consistency , may be bluish in color or with a history of bursting and resolving on their own . The diagnosis is based on clinical examination. The treatment consists of surgical removal of the mucocele.

KEYWORDS: Mucocele, Lower Labial mucosa , Diagnosis , Minor salivary glands , excision.

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I. INTRODUCTION

Mucocele may be defined as a mucus- filled cavity, which can occur in various parts of the body such as the oral cavity, appendix , gallbladder , the paranasal sinuses and the lacrimal sac. ^[1] The term MUCOCELE is derived from a Latin word MUCUS and cocele meaning cavity . ^[2] Mucocele may be formed as a result of accumulation of liquid or mucoid material due to trauma and lip biting habits or due to any alteration in the minor salivary glands that causes limited swelling. ^[3] Which may be present as a rounded, well- circumscribed, transparent and bluish colored lesion of variable size. Mucocele is the 17th most common salivary gland lesion seen in the oral cavity. ^[4]

Mucocele is painless and has a tendency to relapse. ^[5] They are mostly soft in consistency and fluctuate on palpation. They are categorized into types: (a) Extravasation type – which occurs as a result of trauma as lip biting and (b) Mucus retention type – which results from the obstruction of a duct/ ducts of a minor and /or accessory salivary gland. ^[6] They appear as asymptomatic vesicles or bullae with a blue or pinkish color and the size varies from 1 mm to various centimetres and show an equal gender predilection. ^[7] The lower labial mucosa is the most commonly affected but mucocele can occur even in the cheek , tongue , palate and floor of the mouth , where it is called a Ranula . ^[8] The mucocele can arise within days after minor trauma but then regress in size . If left untreated, an episodic increase and decrease may be noted, based on the rupture and the subsequent mucin production.

This case report aims to explain the history, the etiology, clinical features and surgical excision of the mucocele.

II. CASE REPORT

A 20 year old male presented with a chief complaint of a swelling on the inside of the left lower lip since 3 months .The swelling was initially small in dimension but slowly it progressed to the present stage . The case reported a habit of lip biting in stressful conditions. The swelling was painless and no significant medical

history was reported .On clinical examination , the lesion was soft , bluish in color , fluctuant and was round to oval in shape.(Figure 1 and 2) Routine blood investigations were done and the values were found to be in the normal range.



Figure 1



Figure 2

The treatment comprising of surgical excision was explained to the patient and an informed consent was obtained .Local infiltration anesthesia was given circumferentially into the base of the lesion. The lower lip was everted and the excision of the lesion was performed by placing an incision vertically (figure 3), splitting the overlying mucosa and then resecting the mucocele from the base was done. In the base area, a healthy muscle layer could be seen after the excision (figure 5), reducing the chances of recurrence.

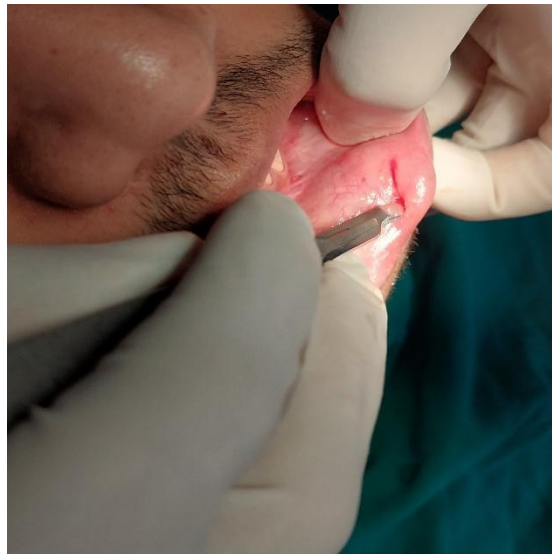


Figure 3



Figure 4



Figure 5

Four 3-0 silk sutures were placed in an interrupted technique (figure 6). The excised specimen (figure 7) was sent for histopathological examination. The diagnosis of mucocele on clinical examination was confirmed by the histopathological analysis. (Figure 8) .The sutures were removed on the 7th post-operative day and an uneventful healing of the surgical area was seen .The patient was reviewed regularly till a period of 3 months at regular intervals and no recurrence was noted. (Figure 9)



Figure 6



Figure 7

Histopathology (Processed by Microwave rapid tissue processor)	
Specimen	Tissue from labial mucosal swelling
Clinical Notes	(?) Mucocele
Gross Examination	Received gray brown soft tissue piece measuring 1.2 cms in all.
Microscopic Examination	Section shows lobules of mucous glands with areas of mucin collection and haemorrhage. Few histiocytes also seen. There is no evidence of dysplastic / malignant changes. Finding are consistent with Mucocele
Impression	Mucocele

Figure 8



Figure 9

III. DISCUSSION

Mucocele is one of the most commonly occurring lesions of the oral mucosa which can affect any age but is predominantly seen in the younger group. Yamasoba et al. 1990 highlighted two etiological factors in the formation of mucocele : Trauma and obstruction of salivary gland ducts .^[9] The Extravasation variant is caused by leakage of fluid from the ducts to the surrounding tissue spaces . This variant is more commonly seen in the minor salivary glands and are very rarely large in diameter.

Diagnosis is mainly based on clinical examination. The appearance of mucoceles is pathognomonic ^[2] and the various sizes, history of trauma location of the lesion, bluish hue and soft consistency are some of the important factors that are to be considered before framing the final diagnosis. ^[10]

The literature reveals that the oral habits such as lip biting or lip sucking are one of the prime etiological factors in the causation of lesions such as irritational fibroma and mucocele. ^[11] The exact location and determination of the origin of the lesion can be done by CT scanning and MR imaging. ^[9] The fine needle aspiration cytology demonstrates the mucus retention phenomenon. Lipomas and tumors of the minor salivary glands do not present fluctuation whereas cysts, mucoceles , abscess and hemangiomas present fluctuation. ^[12]

The conventional treatment modality consists of surgical excision of the lesion and the extirpation of the surrounding tissue. With a simple incision, the content would drain out and would reappear as soon as the wound heals. [14] Surgical excision along with the removal of the involved accessory salivary gland has been advocated as the treatment. Marsupialization will only result in recurrence. [13] Laser ablation, cryosurgery and electro cauterly have also been used for the treatment of the conventional mucocele with variable rates of success. [9]

IV. CONCLUSION

Mucocele, one of the commonly occurring lesions of the oral mucosa are mostly benign and are self-limiting in nature. The diagnosis is based on a thorough clinical examination followed by confirmation by a histopathological analysis. Most of the literature available indicates trauma and habits as the common etiological factors. Complete excision with extirpation of the surrounding tissue has been advocated as the treatment choice and recurrence has been encountered following incomplete removal. The case was reviewed for a period of 3 months at regular intervals. At subsequent follow ups, the prognosis was very good and no recurrence was found.

REFERENCES

- [1]. Ozturk K, Yaman H, Arbag H, Koroglu D, Toy H. Submandibular gland mucocele: Report of two cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2005;100:732-5.
- [2]. Yagüe-García J, España-Tost AJ, Berini-Aytés L, Gay-Escoda C. Treatment of oral mucocele-scalpel versus CO2 laser. *Med Oral Patol Oral Cir Bucal* 2009;14:e469-74
- [3]. Bagán Sebastián JV, Silvestre Donat FJ, Peñarrocha Diago M, Milián Masanet MA. Clinico-pathological study of oral mucoceles. *Av Odontoestomatol* 1990;6:389-91, 394
- [4]. Flaitz CM, Hicks JM. Mucocele and Ranula. *eMedicine*; 2015. Available from: <http://emedicine.medscape.com/article/1076717clinical> [Last cited on 2015 Feb 01].
- [5]. Bermejo A, Aguirre JM, López P, Saez MR. Superficial mucocele: Report of 4 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1999;88:469-72.
- [6]. Delbem AC, Cunha RF, Vieira AE, Ribeiro LL. Treatment of mucus retention phenomena in children by the micro-marsupialization technique: Case reports. *Pediatr Dent* 2000;22:155-8
- [7]. Neville B, Damm DD, Allen CM, Bouquot JJ. *Oral and Maxillofacial Pathology*. 2nd ed. Philadelphia: W.B. Saunders; 2002. p. 389-92
- [8]. Baurmash HD. Mucoceles and ranulas. *J Oral Maxillofac Surg* 2003;61:369-78
- [9]. Yamasoba T, Tayama N, Syoji M, Fukuta M. Clinicostatistical study of lower lip mucoceles. *Head Neck* 1990;12:316-20.
- [10]. Andiran N, Sarikayalar F, Unal OF, Baydar DE, Ozaydin E. Mucocele of the anterior lingual salivary glands: From extravasation to an alarming mass with a benign course. *Int J Pediatr Otorhinolaryngol* 2001;61:143-7.
- [11]. Barbería E, Lucavechi T, Cárdenas D, Maroto M. An atypical lingual lesion resulting from the unhealthy habit of sucking the lower lip: Clinical case study. *J Clin Pediatr Dent* 2006;30:280-2.
- [12]. Guimarães MS, Hebling J, Filho VA, Santos LL, Vita TM, Costa CA. Extravasation mucocele involving the ventral surface of the tongue (glands of Blandin-Nuhn). *Int J Paediatr Dent* 2006;16:435-9
- [13]. McDonald RE, Avery DR, Jeffrey A. Dean — *Dentistry for the child and adolescent*. 8th ed. Mosby - St. Louis, Missouri; 2004
- [14]. Huang IY, Chen CM, Kao YH, Worthington P. Treatment of mucocele of the lower lip with carbon dioxide laser. *J Oral Maxillofac Surg* 2007;65:855-8