

Case Report

Oral Mucocele in Paediatric Dentistry: A Case Report

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ABSTRACT:

The mouth contains multiple salivary glands which secrete a protein called mucin. This protein combines with water to form a slimy substance known as mucus. Minor trauma to these salivary glands often causes spillage and pooling of this secretory fluid in the surrounding subepithelial tissue. As the mucus builds up in the tissue, the affected site becomes inflamed and a fluid-filled nodule appears within a few days. Oral mucocele is the most common benign minor (accessory) salivary gland lesion, caused due to mechanical trauma to the excretory duct of the gland. Clinically they are characterized by single or multiple, soft, fluctuant nodule, ranging from the normal color of the oral mucosa to deep blue.

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INTRODUCTION

Mucocele is a mucus filled cyst that occurs in the oral cavity, paranasal sinuses, lacrimal sac, appendix or gall bladder.^[1] Oral mucoceles represent an estimated 2% to 8% of all mucoceles. 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 coloured lesion of variable size. 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.^[4] They appear as asymptomatic vesicles or bullae with a blue or pinkish colour and the size varies from 1 mm to various

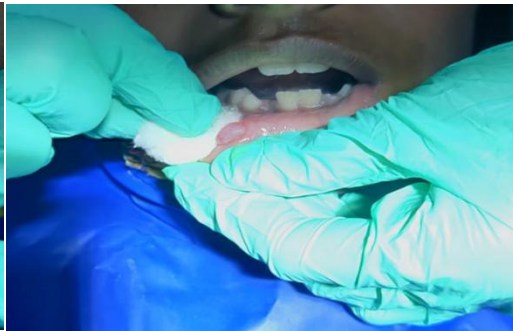
centimetres and show an equal gender predilection.^[5] The lower labial mucosa is the most commonly affected but mucocele can occur even in the cheek, tongue, palate and floor of the mouth, where it is called a Ranula.^[6] This case report aims to explain the history, the etiology, clinical features and surgical excision of the mucocele.

CASE REPORT

An 8-year-old male presented with a chief complaint of a swelling on the inside of the right lower lip for 10 days. The swelling was initially small in dimension but slowly it progressed to the present stage. The swelling was painful while biting. History of bursting and collapsing due to which resolve and then refilling repeatedly. No significant medical history was reported. On clinical examination, the lesion was soft, bluish in colour, 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 with scalpel blade under local anesthesia (figure 3), splitting the overlying mucosa and then resecting the mucocele from the base was done.



(Figure -3)



(Figure -4)

Four 3-0 silk sutures were placed in an interrupted technique (figure 4). The excised specimen was sent for histopathological examination. The diagnosis of mucocele on clinical examination was confirmed by the histopathological analysis. 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 6 months at regular intervals and no recurrence was noted.

CASE REPORT

A 5-year-old boy reported with complaint of swelling on the lower lip for 2 months (figure 5). Swelling was soft, oval, sessile, and painless which was fluctuating in size. Based on the clinical appearance and history, diagnosis of mucocele was made. Under local anesthesia, surgical excision of lesion was done using scalpel blade (figure 6) and sutures were placed (figure 7). Specimen was sent for histopathological analysis that confirmed the diagnosis (figure 8). The child presented with uneventful healing on 3-month follow-up.



(Figure 5)



(Figure 6)



(Figure 7)



(Figure 8)

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.^[7] 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 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.^[8] 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.^[9] The exact location and determination of the origin of the lesion can be done by CT scanning and MR imaging.^[7] 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.^[10] 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 cautery have also been used for the treatment of the conventional mucocele with variable rates of success.^[9]

CONCLUSION

Because of high chances of recurrence, management of mucocele is a challenging task. 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.

REFERENCES

1. Baumash HD (2003) Mucoceles and ranulas. *J Oral MaxillofacSurg* 61: 369-378.
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, PeñarochaDiago M, MiliánMasanet MA. Clinicopathological study of oral mucoceles. *Av Odontostomatol*1990;6:389-91, 394
4. 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.
5. Neville B, Damm DD, Allen CM, Bouquot JJ. *Oral and Maxillofacial Pathology*. 2nd ed. Philadelphia: W.B. Saunders; 2002. p. 389-92.
6. Baumash HD. Mucoceles and ranulas. *J Oral MaxillofacSurg*2003;61:369-78
7. Yamasoba T, Tayama N, Syoji M, Fukuta M. Clinicostatistical study of lower lip mucoceles. *Head Neck* 1990;12:316-20.
8. 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 PediatrOtorhinolaryngol*2001;61:143-7.
9. 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.
10. 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