

Case Report

Pseudocyst of Lower Lip: A Case ReportAwadhesh Gupta¹, Neeraj Grover², Seema Sharma³¹Senior lecturer, Department of Oral and Maxillofacial pathology, D.J. College of Dental Sciences & research, Ghaziabad, Uttar Pradesh, India²Professor & Head, Department of Oral and Maxillofacial pathology, D.J. College of Dental Sciences & research, Ghaziabad, Uttar Pradesh, India³Professor & Head, Department of Oral and Maxillofacial Pathology & Microbiology, Santosh Dental College, Ghaziabad, Uttar Pradesh, India***Corresponding author**

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Abstract: The Mucocele or Mucus Extravasation phenomenon or mucus escape reaction is a common benign lesion of the oral cavity which most commonly results from the rupture of a salivary gland ducts or an alternation of minor salivary glands due to accumulation of mucus into the surrounding soft tissues. This may results from the local trauma to the salivary ducts that can be produced by lip or cheek biting, or by lip pinching by forceps. The most common sites include lower lip usually lateral to the midline. The Mucocele is not a true cyst as it lacks an epithelial lining. Histologically, it exists as extravasation and retention types. Clinically, they appear as dome-shaped mucosal swelling ranging from few mm to several centimeters in size and consist of soft, bluish and translucent cystic swelling. This case report presents a 32 years old male patient having Mucocele on lower lip. Treatment performed was surgical excision as he suffered difficulty in speech and mastication. After follow up, there was no recurrence of the lesion.

Keywords: Mucocele, mucus extravasation phenomenon, mucus escape reaction, surgical excision, salivary glands

INTRODUCTION

Mucocele is a swelling in mouth also known as a “mucus cyst of the oral mucosa”. Although Mucocele is benign, it can affect the oral functions such as chewing, and speaking and oral hygiene [1]. Mucocele involves mucin accumulation causing limited swelling [2]. Mucoceles can have very similar features with other oral lesions. Thus, a dentist must inform patients on their oral lesions advise them to seek further diagnosis and treatment in order to prevent any potential medical threats [3]. The most common cause of Mucocele is traumatic severance of salivary ducts or blockage of salivary glands. Two types of Mucocele appear – extravasation and retention. Extravasation mucocele results from trauma to salivary glands duct and the consequent spillage into the soft tissues around this gland. Retention Mucocele appears due to a decrease or absence of glandular secretion produced by blockage of the salivary gland ducts [4]. Mucoceles occur on the tongue, inside the cheeks, the roof the mouth, the floor of the mouth, or around tongue or lip piercing. Most mucoceles are painless but can be bothersome because patients are sensitive to the bumps in their mouth. Mucoceles are benign. However, if they are left untreated, they can organize and form a

permanent bump on the oral surface. Mucoceles occur where salivary glands exist. The dentist should look for a rubbery, bubble-like swelling. Mucoceles are usually found inside the lower lip, but they can also be found on the inner side of the cheek, the anterior ventral tongue, the roof of the mouth, the floor of the mouth, and rarely the upper lip [5, 6]. Mucoceles present a bluish, soft and transparent cystic swelling. The blue color is caused by vascular congestion, and cyanosis of the tissue above and the accumulation of fluid below the mucosa. Coloration can also vary depending on the size of the lesion, proximity to the surface and upper tissue elasticity [7]. Infrequently, a mucocele goes away without treatment. But if some mucoceles remain untreated, they can scar over. The dentist should examine any swelling in patient’s mouth. Mucoceles are usually removed by surgery with scalpel or by a laser. The excised Mucocele tissue will be sent to a histopathology lab for evaluation of the tissue to make a final confirmatory diagnosis [1]. A few cases of mucoceles and ranulas resolve naturally without treatment, especially in infants and young children. As an alternative to surgery, lesion aspiration and follow-up for about 6 months have been suggested if symptoms are minimal in infants and young children [3, 6, 8].

Since, mucoceles are most common benign salivary gland lesion affecting the general population, it would be interesting to deliberate the clinical characteristics of mucoceles, and their treatment to aid for decision making in daily clinical practice. Hence, the clinician should make aware the patients for the complications of mucoceles who has tendency of lip biting.

CASE REPORT

A 30 years old male patient came to the Department of Oral & Maxillofacial Pathology and Microbiology with a complaint of a painless swelling on the inner aspect of left side of lower lip since 2 years. The history of present illness consisted of a painless swelling on the inner aspect of left side of lower lip against #43 and #44 since 2 years. Initially, the swelling was asymptomatic & then gradually increased to present size from 6 months. After 3 months, the patient felt pain which was dull in nature. The pain subsided with analgesics for sometimes, then again recurred. The patient gave the history of trauma 2 years ago while mastication. The patient had no any medical, dental and family history of such lesion. Clinical examination on inspection revealed the rounded bluish, translucent swelling was seen on the inner aspect of left side of lower lip. The

swelling was superficial, fluctuant, soft, non-tender and diffusing with the surrounding. It was about 1.0 x 0.9 x 0.7 cm in dimension. The overlying mucosa appeared stretched and shiny. The surrounding tissue was normal (fig 1). All the findings of inspection were confirmed on palpation. Mass was soft and fluctuant in consistency. Not fixed to the underlying tissue. Non tender in nature, temperature was similar to the surrounding tissue.

The hemogram of the patient was within normal limits. The lesion was excised under local anaesthesia (fig2). The surgical site was irrigated with povidone iodine – saline solution and was closed with 3-0 silk sutures. All the post-operative instructions were given to the patient and antibiotic along with analgesics were advised. The tissue specimen was placed in 10% buffered formalin and sent to the histopathology lab for histopathological evaluation of the tissue specimen. After one week, the sutures were removed and healing of the excised areas was observed and patient was recalled after 3 months for observation to prevent recurrence. A soft tissue specimen creamish-white in colour was received. It was soft to firm in consistency, ovoid in shape and measured about 1.0 x 0.9 x 0.7 cm in size (fig 3).



Fig. 1: Showing intra-oral lesion on Lower Lip



Fig. 2: Showing growth on the left side of lower Lip (after using Toluidine blue stain)



Fig-3: Gross picture shows a soft tissue specimen, creamish-white in color, soft to firm in consistency, ovoid in shape and measured about 1.0x0.9x0.7 cm in dimension



Fig-4: On grossing of specimen into two halves shows mucus filled cystic cavity

Histopathological examination revealed orthokeratinized stratified squamous surface epithelium and underlying connective tissue. The fibro-cellular stroma consists of a circumscribed cavity lined by compressed fibrous connective tissue. Diffusely distributed lymphocytes and macrophages are also

evident. Mucus acini and feeder duct can also be appreciated. On the basis of clinical and histopathological evaluation of the lesion, the final diagnosis of **MUCOCELE (mucus extravasation cyst)** was made.

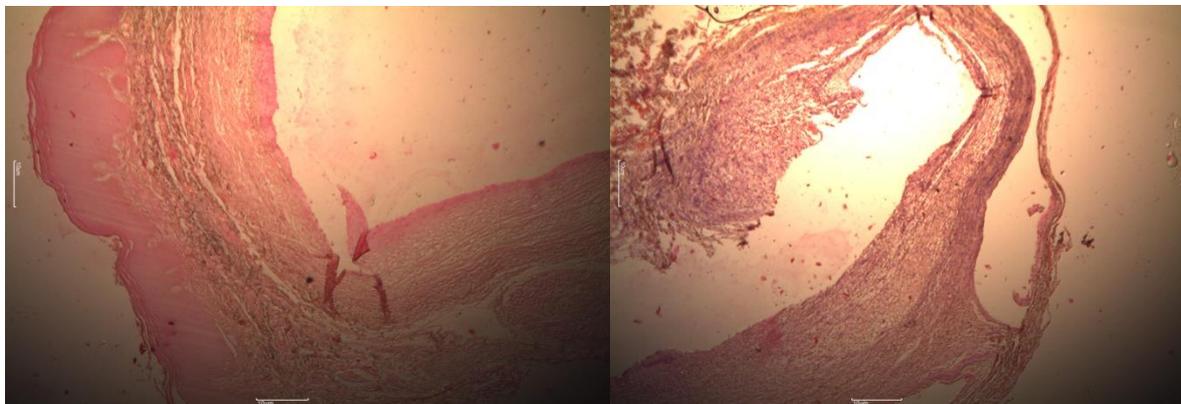


Fig-5 & 6: On Scanner view (4x) - showing stratified squamous epithelium and underlying connective tissue stroma under scanner view (4X, H&E Stain).

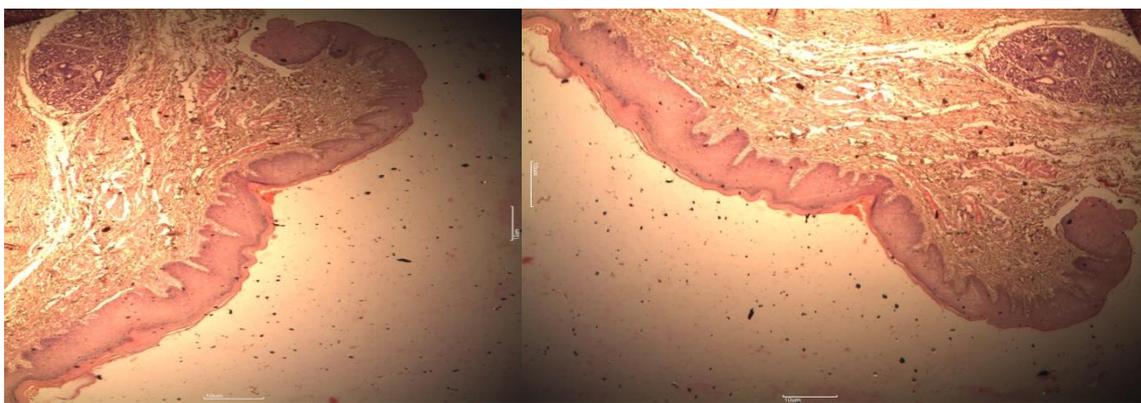


Fig-7 & 8: Showing a circumscribed cavity lined by compressed fibrous connective tissue with overlying stratified squamous epithelium (10X, H&E Stain).

DISCUSSION

Mucoceles are painless asymptomatic swelling most commonly occurring on the lower lip but they can also be found on the inner side of the cheek, the anterior ventral tongue, the roof of the mouth, the floor of the mouth, and rarely the upper lip. It is self limiting mucus containing cyst of salivary glands occurring in the oral cavity with relative rapid onset and fluctuating in size [9]. According to Dent *et al.* [10], mechanical trauma to the ducts of the salivary glands causes rupture of the ducts which is followed by extravasation of mucin in the connective tissue and is called as mucus extravasation phenomenon. The extravasation type undergoes three evolutionary:

- Phase I: In the first phase, there is spillage of mucus from salivary duct into the connective tissue.
- Phase II: In the second phase, it is the resorption phase in which granulomas appear due to the presence of histiocytes,

macrophages, and giant multinucleated cells associated with foreign body reaction.

- Phase III: In the third phase, there is formation of pseudocapsule without epithelium around the mucosa [11].

The choice of treatment for mucoceles includes surgical excision with removal of accessory salivary glands and ducts, cryosurgery, intra-lesional corticosteroid injection and laser ablation. Baurmash [7] proposes complete resection of the Mucocele through careful dissection, and ensuring that both the affected and neighbouring glands are removed, along with the pathological tissue, before primary closure of the wound. This minimizes the risk of recurrence of the lesion.

CONCLUSION

The various differential diagnoses are Mucocele, Epulis, Salivary Gland Tumour, Vesiculobullous lesion

(Mucus membrane Pemphigoid). Regular evaluation of the lesion is necessary to prevent the recurrence and potential life threatening condition.

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