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SUCCESSFUL MANAGEMENT OF MUCOCELE OF LIP WITH 18 MONTHS FOLLOW UP: A CASE REPORT

Periodontology

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ABSTRACT

Mucocele is a mucus-filled cyst seen most commonly inside the oral cavity. It results from accumulation of mucus due to trauma. The two most common types of mucocele are: extravasation cyst and retention cyst. It can be seen anywhere in the oral mucosa but lower labial mucosa is the most common site. They are benign, rounded, painless and well circumscribed. If left untreated, their size may increase or they can persist unchanged. Treatment involves surgical excision. Even after surgical intervention the rate of recurrence is high.
This case report highlights successful management of mucocele on lower labial mucosa which was excised with laser and no recurrence is noted after 18 month of follow up.

KEYWORDS

Mucocele, LASER, lower lip, excision

INTRODUCTION

The term mucocele was derived from a Latin word: mucus, or mucus and coele or cavity1. Mucocele is defined as a mucus-filled cyst that may appear in the oral cavity, appendix, gall bladder, paranasal sinuses, or lacrimal sac 2. It results from accumulation of mucus due to alteration in the minor salivary glands [3].

The two most common types of mucocele are: extravasation cyst and retention cyst. Extravasation mucocele results from a traumatized or broken salivary glands duct and the spillage into the soft tissues around the gland. Retention mucocele appears due to a decrease or absence of glandular secretion produced by blockage of the salivary gland ducts 4. When located on the floor of the mouth these lesions are called ranulas because the inflammation resembles the cheeks of a frog [1].

Yamasoba et al. highlight two crucial etiological factors in mucoceles: traumatism and obstruction of salivary gland ducts 4. A study by Bagán et al. considering 25 mucoceles suffered in the general population, showed that 5% were retention mucoceles whereas the other 95% were extravasation 5. They proposed that extravasation mucoceles undergo three evolutionary phases. In the first phase, mucous spills diffusely from the excretory duct into conjunctive tissues where some leucocytes and histiocytes are found. Granulomas appear during the resorption phase due to histocytes, macrophages and giant multinucleated cells associated with a foreign body reaction. In the final phase connective cells form a pseudocapsule without epithelium around the mucosa.

Mucoceles are usually asymptomatic but sometimes can cause discomfort by interfering with speech, chewing, or swallowing. Treatment options include surgical excision, marsupialization, micromarsupialization, cryosurgery, laser vaporization, and laser excision [6].

This article describes a case report of mucocele on lower lip.

CASE REPORT

A 17 year old boy reported with the chief complaint of painless swelling on the inner aspect of the lower lip since a year. Swelling was initially small and then started increasing gradually to attain the present size. Patient did not have any significant medical history. On intraoral examination, a ovoid, solitary, fluctuant swelling was seen on the inner aspect of the lower lip. Color of the swelling was the same as that of the adjacent mucosa. No other oral anomalies were detected. Patient did not report any habit of lip biting. The lesion was provisionally diagnosed as a mucocele based on clinical examination. Lesion was excised with 810nm diode laser used in continuous wave contact mode with gentle strokes. The area was kept moist with saline soaked gauze pieces. Care was taken to completely excise the lesion along with a 1-2mm margin of normal adjacent labial mucosa.

The excised tissue was sent for histopathological examination.

Fig 1: Mucocele on lower

Fig 2: Immediate pot operative view after excision with laser

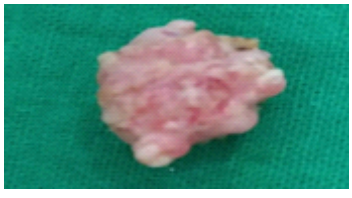

Fig 3: Excised mucocele

Fig 4: Sutures placed

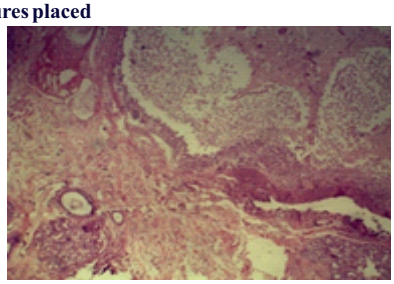

Fig 5: Histopathological section (a)

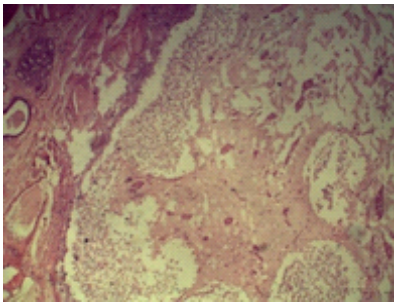

Fig 6: Histopathological section (b)

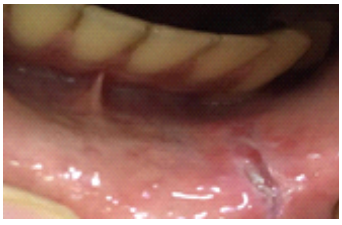

Fig 7: one month follow up

Fig 8: 18 months follow up

DISCUSSION:

Lip contains adipose, connective tissue, blood vessels, nerves and salivary glands, and hence, pathology of any of these tissues can produce swelling on the lips. Conventional treatment is commonly surgical extirpation of the surrounding mucosa and glandular tissue down to the muscle layer.

Mucocele is the common minor salivary gland lesion, which is clinically characterized by a single or multiple, ovoid, and fluctuant lesions which are generally asymptomatic. They are the 15th most common oral mucosal lesion, with a prevalence of approximately 2.4 cases per 1,000 people[10].

Mínguez-Martinez et al. reviewed 89 patients with the mean age of 6.1 years. They noted that the average progression time for the mucocele includes 5.7 months 11. It was observed that older patients developed more mucoceles on the tongue and lips and younger patients developed more mucoceles on the buccal mucosa and palate.

The key point in avoiding recurrence is to eliminate the adjacent surrounding glandular acini and removing the lesion down to the muscle layer 8. With a simple incision of the mucocele the content would drain out but the lesion would reappear as soon as the wound heals [7].

Mucocele, fibroma, lipoma, mucus retention cyst, sialolith, phlebolith, and salivary gland neoplasm also appear with a clinical presentation of swelling on the lip. However, these can be distinguished from mucocele based on their clinical appearance, color, consistency, etiology, and their location of occurrence.

Palpation can be helpful for a correct differential diagnosis. Lipomas and tumors of minor salivary glands present no fluctuation while cysts, mucoceles, abscess and hemangiomas do 9. Mucoceles of the minor salivary glands are rarely larger than 1.5 cm in diameter and are always superficial. Mucoceles found in deeper areas are usually larger. Mucoceles can cause a convex swelling depending on the size and location, as well as difficulties in speaking or chewing 1.Surgical removal was necessary in this case because of the associated functional problems. The patient was followed up for a period of 18 months and no recurrence was observed.

CONCLUSION:

Oral mucoceles are commonly occurring lesions with a considerably high rate of recurrence, especially in young individuals. Thus, exact diagnosis with accurate identification and location of the affected gland is of paramount importance in their successful management. Oral mucoceles can be managed either surgically or non-surgically. The choice of the treatment depends on the size of the lesion, site, the age of the patient, the depth of the lesion and availability of the materials.

LASER excision may be preferred over aggressive surgical management which involves higher risk and greater chances of complications. In the present case, laser excision of mucocele on 18 months follow up did not result in recurrence.

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