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Unusual Presentation of Extravasation Cyst of Left Buccal Mucosa in a Young Child

Veena Arali[1], Mounika Kallakuri[2], Rapala Harika[3], Atluri Naga Supraja[4], Prudhvi Kumar G[5], Sritha A[6]

[1]*Professor & HOD, Department of Pediatric & Preventive Dentistry, GSL Dental College & Hospital, Rajahmundry, Andhra Pradesh.*

[3]*Reader, Department of Pediatric & Preventive Dentistry, GSL Dental College & Hospital, Rajahmundry, Andhra Pradesh.*

[2,4,5,6]*Post Graduate, Department of Pediatric & Preventive Dentistry, GSL Dental College & Hospital, Rajahmundry, Andhra Pradesh.*

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ABSTRACT: Mucoceles are common cystic lesions of the oral mucosa. In young patients, the lower lip is the most common site for extravasation type of mucoceles. Mucocele has clinical resemblance with other swellings and ulcerative lesions of the oral cavity and needs to be differentiated carefully. We report an interesting, unusual case of mucocele of left buccal mucosa, which presents as hard, fluctuating swelling in a child of age seven years and was managed by surgical excision.

KEY-WORDS: Mucocele, Buccal mucosa.

I. INTRODUCTION:

Mucocele is a common salivary gland disorder, defined as a mucus filling cyst that usually appears in the oral cavity, paranasal sinuses, or lacrimal sac. The term mucocele is derived from a Latin word, mucus and cocele meaning cavity. It is the 17th most common salivary gland lesion seen in the oral cavity[3]. Clinically, mucoceles are of two types (a) extravasation and (b) retention type. Extravasation cyst is usually seen in minor salivary glands and forms due to leakage of fluids from the salivary gland ducts and acini into the surrounding soft tissue.

In contrast, retention type cyst results from obstruction of salivary gland duct and hence is commonly found in ducts of major salivary glands. However, clinically, there is no difference between the two cyst types. Mucous extravasation cyst (MEC) or oral mucocele develops following traumatic severance of minor salivary gland duct and resultant spillage of mucous secretion into the surrounding connective tissues.

Its clinical presentation is often distinctive as raised dome‑ shaped, circumscribed, nontender, sessile, and fluctuant swellings varying in size.

The most frequent development region is the lower lip, followed by the floor of the mouth, ventral tongue, and buccal mucosa. Mucoceles were present in the lower labial mucosa (30 patients, 83.3%), ventral aspect of the tip of the tongue (3, 8.3%), the floor of the mouth (1, 2.7%), buccal mucosa (1, 8.3%).

II. CASE HISTORY:

A 6-year-old female patient came to the Department of Pediatric and Preventive Dentistry complaining of swelling in the lower-left cheek region. The swelling was present for 3months, which was initially small and increased to the current extent. The patient gave a positive history of trauma and cheek biting. The swelling was fluctuating, painless. Medical history was non contributing. Routine blood investigations were advised. Values were normal.

A soft tissue nodule on the left buccal mucosa, which was similar in colour to the oral mucosa measuring approximately 2 cm at its widest diameter with a sessile base, flaccid consistency, clearly defined limits, and a smooth surface . After confirming the inspectory and palpatory findings and based on the history of trauma and clinical features findings, provisionally diagnosed as mucocele and hematoma. The treatment planned was surgical excision, as it was the gold standard in preventing mucocele from recurrence. The treatment plan was explained to the parents.

After obtaining of consent from the patient's parents regarding the surgical excision of the lesion. Treatment done was an excisional biopsy, and the specimen was sent for histopathological examination. (fig.1 & fig 2)

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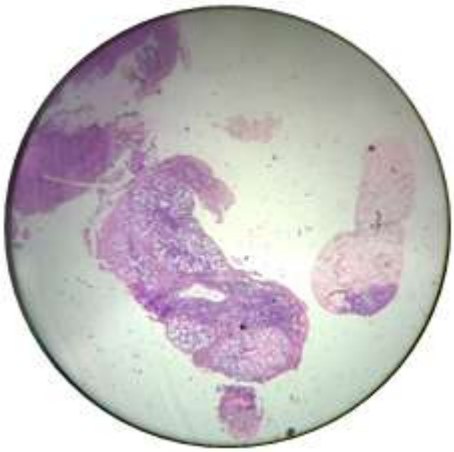

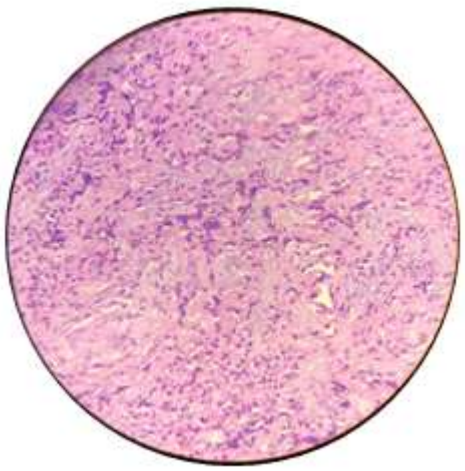

Fig 1. Histopathological examination showing salivary gland structure.
Fig 2. Histopathological examination showing inflammatory infiltrate.

Histopathological examination reveals structure resembling salivary gland with an inflammatory cell infiltrate suggestive of mucocele[1]. As there was no evidence of hemorrhage, fibrin exudation, and hyalinization, it was not diagnosed as a hematoma.

III. DISCUSSION:

Mucocele is a swelling caused by saliva pooling from a severed or obstructed minor salivary gland duct. It is a self-limiting mucous containing cyst of salivary glands commonly occurring in the oral cavity, with relatively rapid onset and fluctuating size[9].

Yamasoba et al. highlighted two crucial etiological factors in mucoceles as follows:

(I) trauma,

(II) obstruction of salivary gland duct.

Mainly physical trauma causes the spillage of salivary secretion into surrounding submucosal tissue. Later inflammation may become evident due to stagnant mucous. The habit of lip biting and tongue thrusting is also one of the aggravating factors[2]. In our case History of trauma could have been an etiological factor.

The extravasation type will undergo three evolutionary phases[3]

(I) In the first phase, there will be spillage of mucus from the salivary duct into the surrounding tissue in which some leucocytes and histiocytes are seen.

(II) In the second phase, granulomas will appear due to the presence of histiocytes, macrophages, and giant multinucleated cells associated with foreign body reaction. This second phase is known as resorption phase.

(III) Later in the third phase, there will be a formation of pseudo-capsule without epithelium around the mucosa due to connective cells. The retention type of mucocele is commonly seen in major salivary glands. It is due to the dilatation of duct and block caused by a sialolith or dense mucosa. It depends upon the obstruction of salivary flow from the secretory apparatus of the gland.

DIAGNOSIS

The appearance of mucocele is pathognomonic, and the following data are crucial: lesion location, history of trauma, rapid appearance, variations in size, bluish color, and consistency.

TREATMENT

Conventional surgical removal is the most common method used to treat this lesion. Surgical excision with removal of the accessory salivary glands has been suggested as the treatment. Marsupialization will only result in recurrence, but large lesions are best treated with unroofing procedures (marsupialization). It is done to prevent significant loss of tissue or decrease the risk of significantly traumatizing the mental nerve's labial branch. If the fibrous wall is thick, moderately sized lesions may be treated by dissection. If this approach is used, the adjacent minor salivary glands must be removed carefully to avoid injury to any marginal glands and ducts, leading to the recurrence of the lesion.

OTHER TREATMENT OPTIONS

1. Intra-lesional corticosteroid injection

2. Lasers
3. Electrocautery
4. Intralesional suturing
5. Use of absolute alcohol

IV. CONCLUSION

Although many management techniques were there to manage the mucocele, surgical excision will always remain the gold standard. Surgical excision with dissection of surrounding and contributing minor salivary gland acini proved to be successful with the least recurrence. As oral mucocele is a typical lesion similar to other lesions in the oral cavity, careful examination needs to be done to differentiate it from other lesions.

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