

Mucocele: Two Case Reports

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ABSTRACT

The Mucocele or Mucus retention phenomenon is a salivary gland lesion of traumatic origin, formed when the main duct of a minor salivary gland is torn with subsequent extravasation of the mucus into the fibrous connective tissue so that a cyst like cavity is produced. The wall of this cavity is formed by compressed bundles of collagen fibrils and it is filled with mucin. Mucoceles are known to occur most commonly on the lower lip, followed by the floor of mouth and buccal mucosa being the next most frequent sites. This paper reviews the Mucocele and presents two case reports.

Keywords: Mucocele, Cyst, Salivary gland, Mucus, Extravasation, Retention phenomenon

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Mucocele are rarely seen on the upper lip, retromolar pad or palate. They may occur at any age, they are seen most frequently in the second and a third decade of life.¹ This lesion has no sex predilection and occurs more frequently in children, adolescents and young adults. Mucoceles appear as discrete, small, translucent, soft, painless swelling of the mucosa ranging from normal pink to deep blue in color. The tissue cyanosis and vascular congestion associated with stretched overlying tissue and the translucency of the accumulated fluid beneath results in the deep blue colour. Mucoceles can be single or multiple often rupturing and leaving slightly painful erosions that usually heal within few days.²⁻¹⁶

the chief complain of Swelling in the lower lip (Fig 1). The history of present illness consisted of Swelling in the lower lip since 2 days in the inner aspect of lower lip in the 34, 35 region. It had been increasing since 2 days. It was painless and no history of fever or malaise was present. It was Soft, fluctuant and palpable with no increase in temperature, oval in shape.

The other oral findings were erupting 13, Occlusal pit 55, palatal pit 65, over retained 73, buccally placed 33, Lingually placed 32, over retained 83, rotated 44, 45 and lip biting habit. The lab investigations like HB, TLC and DLC were conducted and the values were found to be normal. The differential diagnosis were Oral ranula, Oral lymphangioma, Oral haemangioma, Cicatricial pemphigoid, Bullous lichen planus and Minor apthous ulcers

CASE REPORTS

Case Report 1

A 13 years old female child visited the dental clinic with



Fig. 1: The Mucocele lesion



Fig 2: Removal of the lesion



Fig 3: Sutures were given



Fig. 4: The fluid was collected in syringe



Fig. 5: The Mucocele

The Final diagnosis was formulated as a Mucocele on the basis of the history of the Lip biting habit and Clinical features. The treatment planning consisted of the surgical removal of the lesion by placing an incision vertically; therefore splitting the overlying mucosa and then aspirating the fluid, separating the lesion from the

mucosa by placing a suture and resecting the Mucocele from the base so that chances of reoccurrence are less, sutures were placed.(Fig 1,2,3,4,5) Regular recall and checkup for the reoccurrence of the lesion was done.

Case Report 2

A 2 1/2 year old female child visited the dental clinic with the chief complain of Swelling in the lower lip. (Fig 6) The history of present illness consisted of Swelling in the lower lip since 2 days. It had been increasing since 2 days. The child had also reported trauma on the lower lip few months back. The swelling was painless and no history of fever or malaise was present.

The lab investigations were conducted and the values were found to be Hb 10gm%, BT-2, CT-6-10; TLC-7200/cm. The differential diagnosis were Oral ranula, Oral lymphangioma, Oral haemangioma, Cicatricial pemphigoid, Bullous lichen planus and Minor aphthous ulcers The Final diagnosis was



Fig. 6: The lesion

formulated as a Mucocele on the basis of the history of the trauma and Clinical features.

The treatment planning consisted of the surgical removal of the lesion was advised by placing an incision vertically; therefore splitting the overlying mucosa and then resecting the Mucocele from the base so that chances of reoccurrence are less, sutures were placed. (Fig 7, 8, 9) Regular recall and checkup for the reoccurrence of the lesion were conducted.

Discussion

Mucoceles may be located either as a fluid filled vesicle or blister in the superficial mucosa or as a fluctuant nodule deep within the connective tissue. Spontaneous drainage of the inspissated mucin especially in superficial lesions followed by subsequent recurrence may occur. The surface of long standing lesions may show fibrosis.¹

The development of Mucoceles usually depends on the disruption of the flow of saliva from the secretory apparatus of the salivary glands. The lesions are most often associated with mucus extravasation into the adjacent soft tissues caused by a traumatic ductal insult, which may include a crush-type injury and severance of the excretory duct of the minor salivary gland. The disruption of the excretory duct results in



Fig. 7: Removal of the lesion



Fig. 8: The Mucocele



Fig. 9: sutures have been given

extravasation of mucus from the gland into the surrounding soft tissue. It has been suggested that the rupture of an acinar structure caused by hypertension from the ductal obstruction is another possible mechanism for the development of such lesions.

Mucoceles are painless, asymptomatic swellings that have a relatively rapid onset and fluctuate in size. The patient may relate a history of recent or past trauma to the mouth or face, or the patient may have a habit of biting the lip. When lesions occur on the anterior ventral surface of the tongue, tongue thrusting may be the aggravating habit, in addition to trauma. Patients with superficial Mucoceles usually report small fluid-filled vesicles on the soft palate, the retromolar pad, the posterior buccal mucosa, and, occasionally, the lower labial mucosa. These vesicles rupture spontaneously and leave an ulcerated mucosal surface that heals within a few days. The various differential diagnosis are Blandin and Nuhn mucocele, Ranula, Benign or malignant salivary gland neoplasms, Oral Hemangioma, Oral Lymphangioma, Venous varix or venous lake, Lipoma, Soft irritation fibroma, Oral lymphoepithelial cyst, Gingival cyst in adults, Soft tissue abscess, Cysticercosis (parasitic infection) Superficial mucoceles may be confused with Cicatricial pemphigoid, Bullous lichen planus and Minor aphthous ulcers.

The history and clinical findings lead to the diagnosis of a Superficial Mucocele. Radiographic evaluation is considered if sialoliths are considered a contributing factor in the formation of oral and cervical ranulas. The demonstration of the mucus retention phenomenon and inflammatory cells can be done by the fine needle aspiration. High Amylase and protein content can be revealed by the chemical analysis. The localization and determination of the origin of the lesion can be done by Computed tomography scanning and magnetic resonance imaging.²⁻¹⁶

Surgical excision with removal of the involved accessory salivary gland has been suggested as the treatment. Marsupialization will only result in reoccurrence¹. Large lesions are best treated with an unroofing procedure (marsupialization). Large lesions may be marsupialized to prevent significant loss of tissue or to decrease the risk for significantly traumatizing the labial branch of the mental nerve. If the fibrous wall is thick, moderate-sized lesions may be treated by dissection. If this surgical approach is used, the adjacent minor salivary glands must be removed. Care has to be taken to avoid the injury to any marginal glands and ducts; it may lead to reoccurrence of the lesion. The excised tissue should always be submitted to the pathological investigations to confirm the diagnosis and rule out the salivary gland tumors. Laser ablation, cryosurgery, and electrocautery are approaches that have also been used for the treatment of the conventional mucocele with variable success.²⁻¹⁶

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