

Case Report (Open access)

Extravasation Mucocele- A Case Report

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Received: 18 April 2016/Revised: 10 May 2016/Accepted: 12 June 2016

ABSTRACT- Mucocele is a commonly found benign, mucus-containing cystic lesion of the minor salivary gland caused due to the damage or blocking of the glands. The damaged duct causes the saliva to build up and a cyst like swelling ensues. Histologically they are of two types: Extravasation cyst and Retention cyst. Clinically they present themselves as soft, bluish and transparent cyst like swelling especially on the lower lip. This case report presents a case of a 35 year old male patient reporting with a soft bluish swelling on the inside of the lower lip. The history revealed the patients habit of biting on the lower lip hence a differential diagnosis of mucocele, oral hemangioma, oral lymphangioma, lipoma, and soft tissue abscess was made. Fine needle aspiration cytology showed increase in amylase and protein content. A final diagnosis was formulated as mucocele from the history of trauma, clinical features, and investigation (chemical analysis). Complete excision of the lesion was done and sent for histopathological investigation which revealed a mucin-filled cyst-like cavity beneath the mucosal surface. The patient was kept under observation for 3 months. The healing was devoid of any scar formation commonly associated with such surgery's. There was no recurrence of the cyst after 6 months. Alternative treatment modalities are cryosurgery, intralesional steroid injections.

Key- Words- Mucocele, Cyst, Salivary Retention, Salivary glands, Duct

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INTRODUCTION

The movement of saliva from the salivary glands into the mouth is through tiny tubes (ducts). One of these tubes/ ducts can become damaged or blocked. This most often happens if the patient repeatedly bites or suck on the lower lip or cheek. The "head-on collision" during games like football or basketball may also cause damage or disrupt the ducts.

Mucus seeps out, pools, becomes walled off from the damage duct and causes a cyst-like swelling. A similar build-up happens when the duct has become blocked. This build up of mucous in a sac is called a mucocele. A mucocele is a benign, mucus-containing cystic lesion of the minor salivary gland.

Oral mucocele (also termed mucous retention cyst, mucous extravasation cyst, mucous cyst of the oral mucosa, ^[1] and mucous retention and extravasation phenomena) is a common lesion of the oral mucosa that results from an alteration of minor salivary glands due to mucus accumulation causing limited swelling. ^[2] It is a clinical term that refers to two related phenomena:

- Mucus extravasation phenomenon
- Mucus retention cyst

Extravasation mucocele results from a broken or ruptured salivary gland duct mostly due to trauma and consequent spillage into the soft tissue around this gland they are a swelling of connective tissue consisting of a collection of fluid called mucin.

Retention mucocele appears due to decrease or absence of glandular secretion produced by blockage of salivary gland ducts. ^[3-4] The histological difference between extravasation and retention cyst is that the extravasation type has no epithelial lining and is formed by a mucus pool surrounded by granulation tissue and the retention cyst has an epithelial lining. ^[5-6]

Although the term cyst is often used to refer to these lesions, mucoceles are not strictly speaking true cysts because there is no epithelial lining. ^[3] Rather, it would be more accurate to classify mucoceles as polyps (i.e. a lump). ^[7]

Access this article online**Quick Response Code:**

ISSN 2455-1716

Website:

www.ijlssr.com

DOI:

10.21276/ijlssr.2016.2.4.12

SIGNS AND SYMPTOMS

The size of oral mucocele varies from 1 mm to several centimetres and they usually are slightly transparent with a blue tinge. On palpation, mucoceles may appear fluctuant but can also be firm. Their duration lasts from days to years, and may have recurrent swelling with occasional rupturing of its contents.

Locations

Mucocele are most commonly found in the inner surface of the lower lip. They can also be found on the inner side of the cheek (known as the buccal mucosa), on the anterior ventral tongue, and the floor of the mouth. When found on the floor of the mouth or on the frenulum on the tongue themucocele is referred to as a ranula. They are rarely found on the upper lip. As their name suggests they are basically mucus lined cysts and they can also occur in the Para nasal sinuses most commonly the frontal sinuses, the frontoethmoidal region and also in the maxillary sinus. Sphenoid sinus involvement is extremely rare. When the lumen of the vermiform appendix gets blocked due to any factor, again a mucocele can form.

CASE REPORT

A 35-year-old male patient visited the dental office with a chief complaint of swelling in the left inner aspect of the lower lip for the past 9 months. History revealed that he had a history of trauma to the chin before 9 months and had mild laceration in that site which healed on its own. Three months later, He developed a small swelling which gradually increased in size. He also gave a history of traumatizing the swelling by often biting the lesion between the teeth, there was no associated pain. Past medical and dental history was not contributory. On extra oral examination, there was mild asymmetry of the left side of the lower lip [Fig. 1].

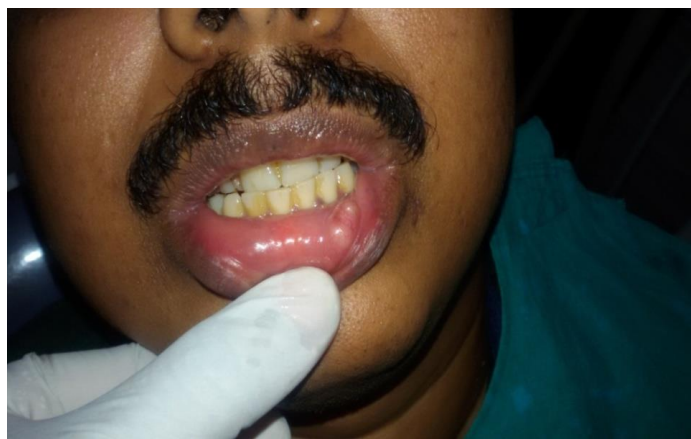


Fig. 1: Extra Oral View

On intraoral examination, a solitary, well-defined, dome-shaped swelling was seen on the left side of the inner surface of the lower lip measuring around 3×2 cm in size,

which was oval in shape, with a smooth surface and a bluish translucent hue [Fig. 2].



Fig. 2: A Solitary, Well-defined, Dome-shaped swelling on Lower Lip

The swelling was soft in consistency, non-tender, fluctuant, compressible, non-reducible, and non-pulsatile, with no increase in temperature. A differential diagnosis of mucocele, oral hemangioma, oral lymphangioma, lipoma, and soft tissue abscess was made. Fine needle aspiration cytology (FNAC) was done, and 1 ml of thick, viscous, sticky, and blood-mixed mucus secretion was collected and sent for chemical analysis which showed increase in amylase and protein content. A final diagnosis was formulated as mucocele from the history of trauma, clinical features, and investigation (chemical analysis).

Complete excision [Fig. 3] was done and sent for histopathological investigation which revealed a mucin-filled cyst-like cavity beneath the mucosal surface [Fig 4, 5]. The patient was kept under observation for 3 months with no recurrence.



Fig. 3: Total Excision of the Mucocele



Fig. 4: Enucleated Mucocele



Fig. 5: Post Operative Extra Oral View

DISCUSSION

Mucoceles are mucus containing cystic lesions of the minor salivary glands; they are the 15th common oral mucosal lesion with a prevalence of 2.4 cases per 1000 people. Mucoceles occurs in young individuals, with 70% of them being younger than 20 years. Superficial mucoceles tend to occur in individuals older than 30 years and ranula occur in children and young adults. Mucus retention cysts occur in older individuals; prevalence occurs in persons aged 50–60 years. Lower lip is the most common site of occurrence, followed by tongue, floor of mouth (ranula), and the buccal mucosa. [6-7]

The clinical appearance of a mucus cyst is a distinct, fluctuant, painless swelling of the mucosa. About 75% of the lesions are smaller than 1 cm in diameter; however, rarely, the size can vary from few millimetres to several centimetres. Superficial lesions take on a bluish to translucent hue, whereas deep lesions have normal mucosal coloration and bleeding into the swelling may impart a bright red and vascular appearance. 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. The various differential diagnoses are Blandin and Nuhnmucocele, oral haemangioma, oral lymphangioma, lipoma, and soft tissue abscess.

Some authors have suggested cryosurgery [8], intralesional steroid injections & CO₂ lasers [6] as alternative treatment modalities. The complications noted with surgical removal are temporary paresthesia, fibrous scar formation & recurrence of the lesion.

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Source of Financial Support: Nil

Conflict of interest: Nil