

Mucocele On Tongue – An Unusual Case Report

Abstract

Mucocele is one of the most common lesion of the oral mucosa that results from an alteration of minor salivary glands due to a mucous accumulation. Mucocele involves mucin accumulation causing limited swelling. Two histological types exist - extravasation and retention. Mucoceles can appear at any site of the oral mucosa where minor salivary glands are present. Diagnosis is principally clinical; therefore, the anamnesis should be carried out correctly, looking for previous trauma. The most common location of the extravasation mucocele is the lower lip, while retention mucoceles can be found at any other site. Mucoceles can affect the general population, but most commonly young patients (20-30 years old). Clinically they consist of a soft, bluish and transparent cystic swelling which normally resolves spontaneously. Treatment frequently involves surgical removal. Nevertheless micro marsupialization, cryosurgery, steroid injections and CO2 laser are also described. Mucocele is a common lesion and affects the general population. For this reason we felt it would be interesting review the clinical characteristics of mucoceles, and their treatment and evolution in order to aid decision-making in daily clinical practice.

Key Words

Mucocele, mucocele treatment, Minor salivary glands

Introduction

Mucocele is a common lesion of the oral mucosa that results from an alteration of minor salivary glands due to a mucous accumulation. Mucocele involves mucin accumulation causing limited swelling. There are basically two types of mucocele. extravasation and retention type. Extravasation mucocele results from a broken 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 [2]. When located on the floor of the mouth these lesions are called ranulas because the inflammation resembles the belly of a frog [3]. Mucocele is a common lesion and affects the general population. For this reason we felt it would be interesting review the clinical characteristics of mucoceles, and their treatment and evolution in order to aid decision making in daily clinical practice.

Etiopathogenesis

There are two crucial etiological factors in mucoceles formation trauma and obstruction of salivary gland ducts. Mucus is produced exclusively by the minor salivary glands and is also the most important substance secreted by the major sublingual salivary glands. Mucoceles can appear by an

extravasation or a retention mechanism.

Extravasation mucoceles are caused by a leaking of fluid from surrounding tissue ducts or acini. This type of mucocele is commonly found on the minor salivary glands.

Physical trauma can cause a leakage of salivary secretion into surrounding submucosal tissue. Inflammation becomes obvious due to stagnant mucous resulting from extravasation

There is no clinical difference between extravasation and retention mucoceles. Mucoceles present a bluish, soft and transparent cystic swelling which frequently resolves spontaneously. The blue colour is caused by vascular congestion, cyanosis of the tissue above and the accumulation of fluid and below. Coloration can also vary depending on the size of the lesion, proximity to the surface and upper tissue elasticity . Lesion duration can vary from a few days to 3 years .

Case Report

A 17-year-old female patient reported to the department of oral medicine and radiology with the chief complaint of swelling on the dorsal surface of tongue for the past 6 months. History of presenting illness revealed that the patient was apparently normal 6 months back when she suddenly she noticed a swelling on the dorsal surface of tongue. The swelling was very small about the

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size of a peanut initially and did not cause her any discomfort. However the swelling has now gradually increase in size to the present size which is about the size of a grape. The patient did not however have any pain or other associated symptoms. Intra oral examination revealed that the solitary swelling was about 1.5 cm in its greatest dimension, pale blue in color, with smooth surface and no ulcerations. On palpation, all the inspectory findings were confirmed. The swelling was smooth, non mobile, non compressible or non reducible in nature. It was non tender as well. There were no other significant oral findings. Based on the chief complaint, history and clinical findings, a working diagnosis as mucocele was given. However, a differential diagnosis of hemangioma, pyogenic granuloma, fibroma was also considered.

Management

an excisional biopsy was carried out in the department of oral and maxillofacial surgery under local anesthesia and the excised specimen was sent to the department of oral pathology for histopathological evaluation.

Histopathology

The histomicrograph revealed salivary gland acini, abundance of chronic

inflammatory cells and fibrous tissue stroma consistent with feature of an inflamed salivary gland

Discussion And Conclusion

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 [3]. Mucoceles can appear at any site of the oral mucosa containing salivary glands. Occasionally mucoceles can involve the glands of Blandin-Nuhn. These glands are located on the muscle of the ventral side of the tongue.

The histological diagnosis is always extravasation type, and normally affecting young patients.

A histopathologic study is crucial to confirm the diagnosis and to ensure that glandular tissue is completely removed. Two types of mucoceles exist: retention mucoceles and extravasation mucoceles. In the case of retention mucoceles a cyst cavity can be found, this is generally well defined with an epithelial wall covered with a row of cuboidal or flat cells produced from the excretory duct of the salivary glands[3]. Compared to extravasation mucoceles, retention mucoceles show no inflammatory reaction and are true cysts with an epithelial covering[5].

Extravasation mucoceles are pseudocysts without defined walls. The extravasated mucous is surrounded by a layer of inflammatory cells and then by a reactive granulation tissue made up of fibroblasts caused by an immune reaction. Even though there is no epithelial covering around the mucosa, this is well encapsulated by the granulation tissue[2], [3], [5].

Treatment

Conventional treatment is commonly surgical extirpation of the surrounding mucosa and glandular tissue down to the muscle layer. With a simple incision of the mucocele the content would drain out but the lesion would reappear as soon as the wound heals [8]. There is no need for treatment if superficial extravasation mucoceles resolve spontaneously. Small mucoceles can be removed completely with the marginal glandular tissue before suture. In the case of larger mucoceles,

marsupialization would avoid damage to vital structures. Clinically, there is no difference between both types of mucocele, and are therefore treated in the same manner. Nevertheless when an obstruction of retention mucoceles is detected treatment involves the removing the top of the cyst and introducing a lacrimal catheter into the duct to dilate it[3]. A study of 14 pediatric patients[14] describes micro marsupialization techniques with 85% success.

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