Mucocele: A rare salivary gland pathology

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Introduction

Mucocele is a soft tissue benign lesion of the minor salivary glands characterized by a cavity filled with mucous. Two types of cyst like mucous extravasation and mucous retention are present. Extravasation mucocele results from a broken salivary gland duct and consequent spillage into the soft tissue around this gland. Retention mucocele appears due to decrease or absence of glandular secretion produced by blockage of salivary gland ducts[1]. Most mucoceles are of the extravasation type, caused by trauma to the salivary glands. As a result, they have a tendency to occur in younger patients. 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 [2]. Clinically, mucocele are characterized by a single, well defined round or oval shape, a sessile nodular lesion varying from few millimeters to approximately 1 cm in diameter [3]. The aim of this article is to present information regarding a rare case of mucocele.

Case Report

A 26-year-old male patient visited the Department of Oral and maxillofacial surgery, in our institute with a chief complaint of swelling in the right inner aspect of the cheek for the past 15 days. History revealed that Patient was apparently alright 15 days back when he suddenly experienced a bite in right cheek region, lead to a small pea sized swelling initially which increased gradually to the present size within the duration of 15 days. Patient did not experience any pain with the swelling nor there was any discharge associated with the swelling. After the swelling increased in size patient started feeling difficulty in chewing and discomfort; there was no associated pain. Past medical and dental history was not contributory. On extraoral examination, there was mild asymmetry on the right side close to the angle of the mouth with bluish purple changes in the site of the lesion. [Fig.1A]
Fig. 1A: Extraoral swelling seen on right side.

Fig. 1B: Intraoral swelling seen on the right corner of mouth.

On intraoral examination, a solitary, well-defined, dome-shaped swelling was seen on the right buccal mucosa in the region of 44, 45, 46, measuring around 3×3 cm in size, which was oval in shape, with a smooth surface and a bluish translucent hue.[Fig. 1B] 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. And since the swelling was large and the color was bluish purple, fine needle aspiration cytology (FNAC) was done, and 1 ml of thick, viscous, sticky, and blood-mixed mucus secretion was collecte 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 (ultrasound, chemical analysis).

Since the lesion was large, surgical excision was done and sent for histopathologic investigation which revealed a mucin-filled cyst-like cavity beneath the mucosal surface. [Fig. 1C] The lesion was closed in two layers and bolster dressing was given, which led to complete regression of the swelling, and the patient was kept under observation for 3 months with no recurrence. The report of excisional biopsy was Mucocele.

Fig. 1C: Lesion dissected from adjacent soft tissue bed

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. Lower lip is the most common site of occurrence, followed by tongue, floor of mouth (ranula), and rarely the buccal mucosa[1]. Treatments for Oral mucoceles include cryotherapy, carbon dioxide and erbium lasers, intralesional corticosteroid, and
topical gamma-linolenic acid; however the gold standard treatment is surgical excision[4].

Conclusion

The present case was uncommon in light of the lesion’s diameter (3.5 cm), which was well-above the average size reported in the literature (usually around 1 cm) and its location on the buccal mucosa. Surgical excision was chosen in this case, because it allowed for a complete removal of the lesion as well as its histopathological examination. Moreover, this method avoids recurrences.

Ethical approval: Approved by ethical committee of our institute. This article does not contain any studies with human participants or animals.

References