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Mucocele in atypical localization – a case report

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Abstract

The article describes a case of an oral mucocele of the palatoglossal arch in 5 y.o. patient, treated by conventional surgical excision of the lesion in general anesthesia.

Key words: mucocele, surgical treatment, oral surgery

Introduction

Mucocele is a cyst filled with mucus that can occur in the oral cavity, appendix, gall bladder, paranasal sinuses or lacrimal sac. The most common sites of appearance of these lesions in oral cavity are the lower lip and tongue, buccal musoca, soft palate and retromolar pad. The trauma or chronic irritation are supposed to be the cause of them [1,2]. This pathological change is mostly found in young people and its diagnosis is based on clinical examination and histopathological evaluation [3]. Although there is a possibility of spontaneous regression of mucocele, especially when it is superficial, it usually requires to be removed [4]. Treatment options for mucoceles include: surgical excision, marsupialisation, micromarsupialization, cryosurgery, laser vaporization and laser excision. Mucocele is recognized as seventeenth most common salivary gland lesions seen in the oral cavity. These lesions are usually asymptomatic, though in some patients they can cause discomfort by interfering with chewing, speech or swallowing [1,5].

Clinically there are two types of mucocele: extravasation and retention types. The extravasation type is a result of leaking the fluid from salivary gland to surrounding soft tissues and it is usually seen in minor salivary glands whereas the retention type is due to obstruction of the salivary gland duct and is usually seen in the major salivary gland ducts. Clinically there are no differences between them. Mucocele located in floor of the mouth shows similarity to 'cheeks of the frog' and is called as ranula [1].

We report a case of mucocele in atypical localization on the palatoglossal arch in a child treated by conventional surgical excision of the lesion.

Case report

A 5 y.o. female patient, with no general disorders, has been referred to the Department of Oral Surgery, Medical Univeristy of Lodz, due to visible lesion on palatoglossal arch that was noticed by pediatrician a few weeks earlier (Fig.1). The lesion was asymptomatic, and the only discomfort while eating and talking was the reason why parents started to seek help. The extra-oral examination showed no pathologies, whereas the intra-oral examination resulted in finding a protuberance of 4 mm in diameter in the location previously stated by the patient. Signs of inflammation were not observed, and the mucosa was pink, shiny and smooth.

Based on the medical history and clinical examination, the initial diagnosis of mucocele was made and a treatment plan was established. The diagnosis and treatment plan including a surgical excision in general anesthesia, was presented to patient's parents, and all surgical permissions were collected. The pre-operative medications and laboratory blood tests were recommended and the surgery was scheduled.

In general anesthesia, the lesion was cut using a scalpel blade and the lesion was enucleated. The wound was closed with sutures (Fig.2.). The excised material, as planned, was sent for the histopathological evaluation and confirmed the initial diagnosis.

One day after the surgery, patient was admitted to the clinic to evaluate the general condition of the patient and the process of wound healing. The sutures were left to spontaneous dissolution. The follow-up visits after a month, 6 months and a year showed no recurrence.

Discussion

A mucocele is a benign, painless, dome-shaped, soft-tissue mass that can result from trauma or obstruction of the salivary gland duct. It occurs in both genders in every age group, but most commonly in second and third decade of life. The most common site of its occurrence is the lower lip but it can also be present in different parts of oral cavity where the salivary glands are present, including very rare localization such as palatoglossal arch. The incidence of mucoceles in general population is evaluated to be in the range of 0,4-0,9% [2,6].

Histopathological analysis is essential to confirm both the diagnosis and complete enucleation of the lesion. Mucoceles have to be differentiated, first of all, from fibromas, which are lesions of connective tissue nature, characterized by the proliferation of fibroblasts and deposition of collagen fibers in short and cluttered beams. On the other hand, mucoceles present as a cavity partially filled or not by an amorphous material similar to mucus, surrounded by a fibrous connective tissue, infiltrated by chronic inflammatory cells and covered with a stratified squamous epithelium. The other very similar lesion is pyogenic granuloma which is inflammatory hyperplasia of mucous membrane. The most common intraoral site for the development of this lesion is gingiva [6,7].

Several techniques have been proposed in the literature for the treatment of mucoceles such as surgical excision, marsupialization, electrosurgery, cryosurgery, laser excision, high-potency topical corticosteroids, gamma-linolenic acid, OK-432, nickel gluconate-mercurius heel-potentized swine organ preparations [8]. The surgeon decides which technique should be used and the decision depends on his practical experience and abilities.

Our case report describing atypical localization of mucocele in oral cavity shows that locus of the lesions may be different than it usually appears to be. The fact should be taken into consideration while performing an examination of oral cavity, making an initial diagnosis and preparing a treatment plan.

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Fig. 1. Intraoral view on operative region.



Fig. 2. Intraoral view after surgery.