MUCOCELE IN A CHILD PATIENT: CASE REPORT

https://doi.org/10.56238/sevened2025.008-028

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ABSTRACT

The objective of this study was to report a clinical case of a patient diagnosed with mucocele in the lower lip, describing its pathology, identification and treatment. Mucocele occurs on the lower lip, but can also be found on the upper lip, tongue, judial mucosa, and rarely in the retromolar region and palate. It is one of the benign lesions that most affects the oral cavity, usually asymptomatically. They can be confused with ranulae, differing by their location, since the ranulae are located on the floor of the mouth and under the tongue. It manifests clinically with bluish or colorless, translucent and circumscribed coloration. In some cases, there is a spontaneous rupture of the lesion. A seven-year-old female patient presented to the dental clinic complaining of an asymptomatic "small ball on the lower lip". The person in charge reported that the child frequently bit his lips and that he manifested himself three times. After clinical examination, the presence of a traumatized salivary gland in the lower lip was observed. A diagnosis of mucocele was obtained. Due to the complaint of the person in charge of recurrence of this lesion that occurred for the third time, after the diagnosis and planning of the dental surgeon, the excision of the traumatized gland was performed, proceeding to the suture. The child was cooperative in the surgery, performed with local anesthesia, dispensing with general anesthesia. After total excision of the mucocele, the guardian was instructed to instruct the child not to bite the lip anymore, avoiding recurrence of the lesion. The patient returned after 30 days, with no complaint of mucocele recurrence. The case was followed up for six months and there was no recurrence. It was concluded that the topic addressed is of high relevance, so the pediatric dentistry professional must have knowledge of the mucocele for a correct diagnosis and treatment, in addition to guiding the person in charge about the importance of the patient's collaboration for non-recurrence.

Keywords: Mucocele. Pediatric dentistry. Child.

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INTRODUCTION

Mucocele is one of the benign lesions that most affects the oral cavity, manifesting clinically with phenomena that can affect the minor salivary glands containing mucus. Mucoceles are mostly found in children and young adults and have no gender predilection. These lesions can appear in any region that houses a minor salivary gland, and are most commonly found on the lower lip, although they can also be found on the upper lip, tongue, cheek mucosa and, more rarely, in the retromolar region and palate (BARRETO MIRANDA et al., 2022b) (AZEVEDO, 2023) (SANTOS et al., 2020).

Clinically, the mucocele presents as a blister or vesicle, with a color equal to the adjacent mucosa or bluish, manifesting itself as a translucent and circumscribed nodule, with a size varying from 1mm to centimeters, its development can be slow or fast, characteristically it is fluctuating, but it can be firm on palpation and formed due to the extravasation of saliva from the mucosa The etiology is related to trauma, Although some lesions do not have associated trauma, however, when manifested recurrently, surgical treatment is necessary to remove the adjacent salivary glands, there is often spontaneous rupture (MORE et al., 2014). (SOLANKI et al., 2024),

The mucocele is a pseudocyst, because unlike the cysts of the salivary duct, it does not have a surrounding epithelial lining, in addition, the mucoceles that occur in the oral floor are called ranula, this name is derived from the Latin word *rana*, which means "frog", because the increase in volume can resemble the translucent belly of a frog (HUZAIFA; SONI, 2023).

On microscopic examination, the mucocele exhibits an area of extravasated mucin, surrounded by reactive granulation tissue, in addition, the inflammation usually includes numerous foamy-looking macrophages; In some cases, a ruptured salivary duct can be identified emptying into the area. The adjacent minor salivary glands usually contain a chronic inflammatory infiltrate and ducts (MOURA; MOSQUE; SILVA, 2021) (RODRIGUES; ABRANTES; ROSA, 2024)

For a correct diagnosis of mucocele, it is essential to analyze the history of the case and a thorough examination of the lesion. In some cases, complementary tests such as conventional radiography, ultrasound, or some advanced diagnostic methods may be necessary. The final diagnosis is reached based on the correlation of clinical findings with the result of microscopic examination. (SANTOS; VASCONCELOS, 2023) (GONZALEZ et al., 2021)

Thus, the objective of this study was to report a clinical case of mucocele in a child patient and to perform a brief review of the literature on the subject.

CLINICAL CASE

A seven-year-old female Brazilian patient came to the Dental Clinic for evaluation, complaining of "a small ball on the lower lip". In the anamnesis, the person in charge

reported that the child frequently bit his lips, and that this "ball" had appeared three times and soon after a few days had disappeared, but that this time it was taking longer. On intraoral clinical examination, a healthy deciduous dentition was observed, and the presence of a traumatized salivary gland (mucocele) - Figure 1, with a hardened texture on the lower lip. After anamnesis, the planning for the case was the surgical excision of the salivary gland. For this purpose, topical anesthesia was performed with benzocaine (Benzotop 200mg-DFL) at the site with a cotton swab, infiltrative anesthesia with a short needle (Unoject-DFL), and Lidocaine-epinephrine hydrochloride (DFL). The main gland was clamped and the adjacent smaller ones were removed with a scalpel and blade number 15. After total excision of the gland (Figures 2 and 3), suturing was performed with a needle mounted with 4-0 silk thread (Shalon Medical) (Figure 4). The excised material was sent for histopathological examination in a formalin vial with the lesion data. The histopathological result confirmed that it was a mucocele. The person in charge was alerted and the patient was instructed not to bite his lip anymore, in order to avoid recurrence. The case was followed up for 6 months and no recurrence was observed.

Figure 1 – Initial photograph of the mucocele

Figure 2 – Mucocele excision

Figure 3 - Appearance after total excision of the gland

Figure 4 - Final appearance after sutures

After 7 days, the sutures were removed and the case was preserved. The patient returned after 30 days, and no recurrence of the mucocele was observed (Figure 5).

Figure 5 - Appearance after 30 days

DISCUSSION

A mucocele is a benign lesion that can affect several regions of the oral cavity, such as the lower lip, as described in the case above, or even the palate, floor of the mouth, tongue, and cheek (HORVAT ALEKSIJEVIĆ et al., 2022). Extravasation mucoceles are

more common in children and young adults, probably because this is the group most susceptible to traumatic injuries and vicious habits in the oral cavity (SANTOS et al., 2020c).

According to the literature, the size of the mucocele can vary from a few millimeters to a little more than one centimeter, depending on the time of evolution of the lesion, and there may be a decrease in size due to mucin rupture (SCRIBANTE et al., 2023a).

The lower lip, lateral to the midline, is the most common location of the phenomenon of mucus leakage, being affected in 75 to 80% of cases, due to the tendency to trauma (LASKARIS, 2000), similar to the case report. The jugal mucosa, the anterior belly of the tongue, and the floor of the mouth (ranula) are less common locations (KALAIMANI et al., 2024)

Deeper mucoceles can make a differential diagnosis with lipoma, malignant and benign salivary gland neoplasms, irritation fibroma, pyogenic granuloma, and others, so a biopsy is necessary to distinguish the lesions (BARRETO MIRANDA et al., 2022a).

The diagnosis of mucocele is made based on the clinical data of the patient and the lesion: appearance, location, history of trauma, size variation, bluish coloration, and consistency, and the definitive diagnosis is obtained from microscopic examination (SASKIANTI et al., 2021)

The choice of the type of treatment needed takes into account the characteristics of the injury (size, location, and depth), the child's age, and the type of trauma. There are several treatment options for mucocele, and the choice should be based on the patient's age, characteristics such as location, size and depth of the lesion, and type of trauma involved (MUKUNDAN; R, 2024).

Total excision surgery is the most common and usual, however, in some cases of mucocele, the lesion may rupture and heal spontaneously (MINOMI; GANZAROLI; PONZONI, 2021). In the case described above, the lesion became chronic, requiring surgical excision of the lesion and the smaller glands located in the lesion, so that there was no recurrence of the mucocele (SCRIBANTE et al., 2023b).

In the case reported in this study, the histopathological report concluded that it was an extravasation mucocele. The constant trauma led to an inflammatory reaction at the site, so surgical excision was performed, as suggested by the literature (MORITA et al., 2023), and surgery with local anesthesia was chosen due to the effective management with the patient.

The non-recurrence of the mucocele after complete excision of the lesion and accessory salivary glands determined the success in the approach to the case described.

FINAL CONSIDERATIONS

Nowadays, the search for a trained professional to determine the correct treatment for the patient, according to the individualities of each one, is essential. Thus, the clinical aspect of mucocele and the search for related causal factors are necessary for the final clinical diagnosis, which is relatively easy for the professional to reach, due to the high rate of agreement between the clinical and histopathological diagnosis. Biopsy and microscopic examination are indicated for the conclusion of the diagnosis, due to the differential diagnosis with other lesions. Total excision of the lesion usually has an excellent prognosis, as long as the cause ceases.

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