

Exophytic Lesions of the Oral Mucosa: The Importance of Differential Diagnosis

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Abstract:

Several lesions of the oral mucosa present similar clinical features, making clinical diagnosis difficult. In most cases, diagnosis is defined by histopathological features. Misdiagnosis implies in an inadequate choice of the therapeutic modality to be instituted and consequently determining an unfavourable prognosis. Sometimes, this ill-defined triad - diagnosis, treatment and prognosis - may even influence patient survival. The purpose of this article is to report two cases of exophytic lesions of the oral mucosa - fibroma and mucocele - which presented clinically similar characteristics. The diagnosis was elucidated by histopathological examination. We discuss the clinical and histopathological features, incidence and frequency, etiopathogenesis, differential diagnosis, treatment modalities and prognosis of both lesions. We emphasize the importance of submitting the removed lesions to anatomopathological examination, avoiding the underestimation of pathological processes and diagnostic errors.

Keywords: fibroma; mucocele; oral cavity; oral diagnosis; oral pathology.

Introduction

The diagnosis of oral cavity lesions is sometimes difficult to achieve. Most of the times, the lesions present typical clinical characteristics. However, in some occasions, the lesions may be atypical, making it difficult to elucidate the final diagnosis. This mix of signs, symptoms and clinical features defines the differential diagnosis of stomatological lesions^{1,2}.

Misdiagnosis may determine the inadequate choice of the therapeutic modality to be instituted. Dangerously, a poorly applied or poorly indicated treatment may adversely affect prognosis. Consequently, this ill-defined triad - diagnosis, treatment and prognosis - may even determine patient survival².

Diagnosis definition is usually finalized by histopathological examination. Therefore, it is essential to always send the surgical specimen or lesion for anatomopathological examination².

The purpose of this article is to report two cases of exophytic lesions of the oral mucosa - fibroma and mucocele - which presented clinically similar characteristics. The diagnosis was elucidated by histopathological examination. We emphasize the importance of submitting the removed lesions to anatomopathological examination, avoiding the underestimation of pathological processes and diagnostic errors.

Description of the Cases

Case 1

A Caucasian female patient, 52-years-old, presented to a private clinic complaining of a lesion in the mouth.

The patient presented a rounded nodule; of hardened consistency, but resilient; smooth surface; sessile base; pinkish coloration, similar to the normal adjacent mucosa; asymptomatic; measuring approximately 8mm in diameter; located in the right vestibular mucosa; with a history of 2 years of evolution (Figure 1).



Figure 1: Fibroma located in the right vestibular mucosa.

No systemic alteration was reported.

Surgical removal was recommended. Under infiltrative anesthesia, the base of the lesion was incised in a wedge shape, followed by mucosal divulsion (using curved Matzembraun scissors) and subsequent suturing. The lesion was fixed in 10% formalin and sent to the Surgical Pathology Laboratory of the Stomatology School of the University of São Paulo. The histopathological examination revealed a fragment of mucosa covered by hyperkeratinized stratified squamous epithelium, with signs of spongiosis and hydropic degeneration. The dense connective tissue of the lamina propria showed increased deposition of irregularly arranged collagen fibers. Diffuse mononuclear inflammatory infiltrate was observed. The diagnosis was fibroma.

The sutures were removed at 7 postoperative days and no intercurrence was reported. The repair of the region proceeded satisfactorily.

The patient is being followed-up for 2 years, with no recurrence of the lesion.

Case 2

An African-descendent male patient, 19-years-old, presented to a private clinic complaining of a lesion in the mouth. Clinically, a rounded nodule was observed; smooth surface; sessile base; pinkish coloration, similar to the normal adjacent mucosa; fibrous consistency, although resilient; asymptomatic; measuring approximately 10 mm in diameter; located in the left labial mucosa; with a history of 15 months of evolution, and episodes of increase and decrease in size (Figure 2).



Figure 2: Mucocele located in the left labial mucosa.

No systemic alteration was found.

Surgical removal was suggested. Under infiltrative anesthesia, the lesion surface was incised, followed by mucosal divulsion (using curved Matzembraun scissors) until removal of the lesion. After divulsion, an associated minor salivary gland was removed. The region was sutured. The lesion was fixed in 10% formalin and sent to the Laboratory of Surgical Pathology of the School of Stomatology of the University of São Paulo. The histopathological examination revealed the presence of mucus leakage in the lamina propria, which was surrounded by inflammatory cells and immature granulation tissue. Salivary gland with normal characteristics was observed in association. The final diagnosis was mucocele.

The sutures were removed 15 days postoperatively without any intercurrent. The repair of the region proceeded satisfactorily.

The patient is being followed up for one year without recurrence of the lesion.

Discussion

The fibroma - despite its name - is not considered a true neoplasm. It is a reactional hyperplasia of fibrous connective tissue in response to local irritation or chronic trauma³. It should be removed with the purpose of exclusion of other pathologies^{2,4}.

Mucocele is the term designated to represent the phenomena of salivary retention or extravasation affecting the minor salivary glands of the oral cavity^{2,6-9}. Mucocele is not considered a true cyst, as it has no epithelial lining^{2,10}. Under mechanical trauma, there may be collapsing of the duct walls of the minor salivary gland, giving rise to the mucus retention cyst, or extravasation of saliva into the adjacent tissue^{2,10,11}.

The particularities of fibroma and mucocele will be presented here, didactically divided:

Clinical Features

Fibroma is characterised clinically as nodular lesions or tumour masses, pedunculated or sessile. They are similar in colour to normal mucosa, or under trauma, slightly whitish (traumatic hyperkeratosis). The texture is smooth and the surface shiny, although it may be ulcerated due to trauma. It is usually asymptomatic, except under trauma. It can reach variable dimensions^{2,4,12-16}.

Clinically, mucocele presents as an increase in volume, generally asymptomatic, characterized as an unilocular bubble, containing saliva inside, floating, with a smooth surface, caused by the distension of the mucosa. It may present a bluish colour when superficial, or similar to the normal mucosa, when deeper. It may reach variable sizes, causing discomfort and interfering with the physiological activities of the oral cavity. The evolution time varies from weeks to months. When the mucocele is superficial, rupture of the lesion and its recurrence is common^{2,5-10,17-22}.

Incidence and Frequency

Fibroma is considered one of the most common tumors of the oral cavity, with higher prevalence between the fourth and sixth decades of life and in the female gender. In the oral cavity, it is frequently observed in the vestibular and labial mucosa, tongue and gingiva^{2,4,12-16}.

Mucocele has no predilection for gender. However, women are slightly more affected. Caucasians are slightly more affected. It affects a wide age range, although it varies according to the nature of the lesion (phenomenon of saliva leakage)^{2,5-10,18,20-24}. The lower lip is the most affected region, followed by the vestibular mucosa, palate and ventral surface of the tongue^{2,5-10,17-22}.

Diagnosis

The diagnosis of fibroma and mucocele can be based on clinical features, history of trauma and evolution. The final diagnosis is determined by anatomopathological examination^{2,5,6,8-11,20,22}.

Histopathological Features

Among the histopathological features of the fibroma, the presence of connective tissue rich in dense and collagenized fibers, covered by stratified squamous epithelium, which may present ulceration or hyperkeratosis resulting from trauma is observed. Scattered chronic inflammatory cells (lymphocytes and plasmocytes) may be observed^{2,4,12-17}.

The mucocele presents an area of extravasated mucin in the connective and submucosal tissue, surrounded by reactive granulation tissue, adjacent to the rupture of the salivary duct. The inflammatory process is constituted by numerous neutrophils and histiocytes. Adjacent salivary glands may be visualised with signs of obstruction. Sialadenitis and dilatation of intra-lobular ducts and disintegration of mucous acinar cells may also be seen^{2,7-11,17-21}.

Etiopathogenesis

The main etiological factor of fibroma is the chronic trauma, represented by irritation due to masticatory trauma, dental edges or parafunctional habits^{2,4,12,15,16}. It is important to emphasize the orientation to patients about the interruption of these habits or conditions, when possible, with the purpose of avoiding and preventing the recurrence of the lesion^{12,13,15}.

Trauma is also the main etiological factor of mucocele, causing the rupture of the excretory duct of the salivary gland involved, leading to saliva leakage into the adjacent connective tissue^{2,5,6,9}.

Differential Diagnosis

For fibroma, the differential diagnosis is composed of peripheral ossifying fibroma, neurofibroma, granular cell tumour, schwannoma, lipoma, mucocele, neurilemoma and salivary gland tumours^{4,12,13}.

The differential diagnosis of mucocele includes irritational fibroma, lipoma, hemangioma, lymphangioma, angioma, depending on the clinical features, especially the colouration of the lesion^{7,9,11,19}.

Treatment and Follow-up

The recommended treatment for fibroma is surgical removal^{2-4,12-16,25,26}, which can be performed by conventional surgery or by surgical laser. The prognosis is satisfactory and the lesion is not susceptible to malignant transformation^{3,12-15,25,28}.

For the treatment of mucocele, surgical exeresis is also the most recommended technique. However, removal of the associated salivary gland by incision and blunt dissection should be emphasized in order to avoid recurrence of the lesion^{2,5-10,17-21}. Other techniques have been reported such as the use of electrocautery^{7-10,17,18,20}; micromarsupialization^{5-9,18,21,22}; marsupialization alginate injection followed by enucleation^{5-9,18,21}; cryosurgery^{5-11,18,20}; systemic administration of gamma linolenic acid⁵; intralesional corticosteroid injection^{7-9,18}; the use of CO₂ or diode laser for removal or vaporization (ablation)^{5-11,17,20,24,27,29}; with variable rates of failure and recurrence. Independent of the technique employed, the follow-up must be performed, justified by the high recurrence rate of the lesion^{5,6}.

Conclusions

Fibroma is a reactive hyperplasia of fibrous connective tissue in response to local irritation or chronic trauma. Mucocele is a lesion affecting the minor salivary glands due to trauma. Both lesions are frequently observed in the dental clinic. As they present clinical characteristics similar to each other, and to other lesions of the oral mucosa, surgical removal and referral to anatomopathological examination is always indicated. The etiological factor of both lesions - trauma - should be evaluated and removed in order to avoid recurrence of the lesions.

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