

An Insight – Prevalence, Characteristics and Management of Oral Mucosal Lesions - A Case Series

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Abstract

Clinicians encounter various oral lesions in everyday practice. Oral lesions can arise from a range of different aetiologies: infective, idiopathic, inflammatory, reactive and neoplastic changes. A clinician must obtain a thorough clinical history and have adequate knowledge of the signs and symptoms, such as the location of the oral mucosal lesion and its size, colour and morphology to make a proper diagnosis.

This article summarises common oral lesions that clinicians may face in everyday practice by categorising them by clinical presentation: ulcerated lesions, white or mixed white-red lesions, lumps and bumps, and pigmented lesions. The pathologies covered include Recurrent aphthous stomatitis, Mucocele, Pre-malignant disorders, Biting Fibroma, Oral Hemangiomas, and Fibrous Epulis. The objective of this review is to improve clinician knowledge and confidence in assessing and managing common oral lesions presenting in the primary care setting.

Keywords: Oral medicine, Oral lesions, Primary health care, Dentistry

Mucocele of Lower Lip**Introduction**

Mucocele is a mucous filled cyst that appear in the oral cavity. It is a painless, asymptomatic, soft tissue benign lesion and non-infective salivary gland swellings of oral cavity. The term mucocele is derived from Latin word where “muco” means mucous and “cele” means cavity. Mucocele is the most common salivary gland lesion in the oral cavity. They are most commonly found on the lower lip, lateral to the midline.¹ They are rarely seen on the upper lip, retro molar pad or palate. They may occur at any age, but are seen most frequently in the second and third decade of life. These lesions have no sex predilection. Mucocele of the oral mucosa results from an alteration of minor salivary glands due to a mucous accumulation causing limited swelling. 2 Two types of mucocele can appear - extravasation and retention. Extravasation mucocele results from trauma to 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. Mucoceles present a bluish, soft and transparent cystic swelling. The blue colour is caused by vascular congestion, and cyanosis of the tissue above and the accumulation of fluid below the mucosa. Generally managed by conservative surgical excision².

Case Report 1

A 12-year old boy patient reported with the chief complaint of painless swelling of lower lip since 2 months. Patient had a history of reduction in the size of swelling one month back and which again increased in size. On examination a solitary swelling was present on left side of lower lip about 1x0.5 cm in size, oval in shape, have ill-defined borders, mucosa over it appears pink in colour, soft in consistency, fluctuant, non-tender. Based on history and clinical examination provisional diagnosis of mucocele of lower lip was given. Routine hematologic investigations were carried out before excisional biopsy. The excised specimen was sent for histopathologic examination. Histopathology report revealed mucous pool which is surrounded by granulation tissue and consists of inflammatory cell infiltrate, collagen fibres, blood vessel and the connective tissue stroma. After excision regular recall and check up for the reoccurrence of the lesion was done for 6 months. [Fig 1]



Figure 1: Mucocele of Lower Lip

Case Report 2

A 7 year old boy patient came with the chief complaint of painless swelling of lower lip since 1 months. Patient had lip biting habit. Patient had a history of recurrent appearance of swelling of lower lip. On examination a solitary swelling present on left side of lower lip about 1x0.5 cm in size, oval in shape, have ill-defined borders, mucosa over it appears pink and white in colour, soft in consistency, fluctuant, non-tender. Based on history and clinical examination provisional diagnosis of mucocele was given. Routine hematologic investigations were carried out before excisional biopsy. [Fig 2]



Figure 2: Mucocele of ventral surface of tongue

Oral Haemangiomas

Introduction

Haemangiomas are one of the most common of all human birth defects and are based on vascular tissues. These lesions are mainly identified into two groups which are named as (a) capillary and (b) cavernous haemangioma.³ Capillary haemangioma consists of small capillary vessels which show lobules formation. Cavernous haemangioma consists of large dilated vessels and they can reach to large sizes. Many treatment modalities are evaluated in which some modalities are successful and some are quite disappointing. Surgical excision, irradiation, CO2 freezing, sclerosing agents, cauterization, steroid therapy and watchful waiting are among the treatment methods evaluated.⁴ The treatment plan established for Haemangiomas must consider aspects such as size, location, lesion hemodynamics, patient's age and viability of the technique to be used. In the present series of two case reports, the management of haemangioma was done using two different modalities depending on their presentation so that major complications can be avoided and more attention should be paid to more conservative treatment modalities.⁵

Case Report 1

A 27-year-old female patient reported with the chief complaint of growth in relation to the labial surface of the lower lip for the last 3 months. The patient was asymptomatic and the lesion was slow-growing, painless, associated with bleeding and caused difficulty in chewing food. There was also a history of burning sensation concerning the growth on taking spicy food. The symptoms got relief after taking medications and pressure packs. On intraoral examination, a solitary, localised, well-defined, pedunculated, exophytic growth measuring approximately 1cm × 1cm in diameter was evident in relation to the labial surface of lower lip,

which was dark-red to purplish-black. On palpation, the growth was non-tender, soft in consistency, non-pulsatile, non-reducible which bled on slight provocation. A provisional diagnosis of pyogenic granuloma was given with a differential diagnosis of traumatic fibroma, papilloma and haemangioma. Total excision biopsy was carried out under local anaesthesia and the specimen was sent for histopathological evaluation. The sub-epithelium showed proliferated capillaries and dilated vascular channels filled with blood and confirmed the diagnosis of capillary haemangioma. A follow-up was taken after 5 days and the lesion was healed. [Fig 3]



Figure 3: Haemangioma of Lower Lip

Case Report 2

A 18-year-old female patient reported with the chief complaint of growth in relation to the labial surface of the lower lip for the last 2 months. The patient was asymptomatic and the lesion was slow-growing, painless, associated with bleeding and caused difficulty in chewing food. On intraoral examination, a solitary, localised, well-defined, pedunculated, exophytic growth measuring approximately 1cm × 1cm in diameter was evident in relation to the labial surface of lower lip,

which was dark-red to purplish-black . On palpation, the growth was non-tender, soft in consistency, non-pulsatile, non-reducible which bled on slight provocation. A provisional diagnosis of pyogenic granuloma was given with a differential diagnosis of traumatic fibroma, papilloma and haemangioma. Total excision biopsy was carried out under local anaesthesia and the specimen was sent for histopathological evaluation. The sub-epithelium showed proliferated capillaries and dilated vascular channels filled with blood and confirmed the diagnosis of capillary haemangioma. A follow-up was taken after 5 days and the lesion was healed.[Fig 4]



Figure 4: Haemangioma of Lower Lip

Biting Fibroma of the Lower Lip

Introduction

Reactive conditions can present as an oral mucosal lesion. An irritation fibroma, also known as a traumatic fibroma, is a reactive lesion of the oral cavity that appears as a localized, non-neoplastic, inflammatory hyperplastic papule of fibrous connective tissue.⁶ When the etiology of the papule-precipitating event is a tooth bite or biting injury, the lesion may be referred to as a biting fibroma; therefore, that nomenclature shall be

used in this paper. Biting fibroma, an irritation fibroma or traumatic fibroma associated with a history of a prior lesion-related tooth bite or biting injury at the site, is a commonly acquired benign reactive lesion of the oral cavity. It is usually an asymptomatic, small, mucosa-coloured, smooth, pedunculated or sessile papule. A biting fibroma is most commonly located on the buccal mucosa, followed by, in decreasing frequency, on the tongue or lip or hard palate or gingiva. It typically presents as a solitary lesion; however, it can appear as multiple lesions. Excision is the treatment of choice for a biting fibroma, however the resolution of the lesion-associated chronic inflammation is also necessary to prevent a recurrence.⁷ The clinical history, lesion morphology, and pathology findings of an illustrative patient with a biting fibroma were included in this case report. A 22-year-old male was described who developed a biting fibroma at the site of a tooth bite on her lower lip. An excisional biopsy not only confirmed the suspected diagnosis of a biting fibroma but also successfully treated her condition by removing the lesion there was no recurrence. In conclusion, the diagnosis of a biting fibroma should be considered when a patient present with a new intraoral lesion, particularly if associated with an acute injury or chronic inflammation of the site.⁸ Since the clinical differential diagnosis of a biting fibroma includes various other benign conditions and less common malignant neoplasms, a biopsy that removes the lesion may not only establish the diagnosis but also potentially provide adequate treatment.⁹

Case Report 1

A 22 year old male patient came with the chief complaint of painless swelling of lower lip since 1 month. Patient had lip biting habit. Patient had a history of recurrent appearance of swelling of lower lip. On examination a solitary swelling present on left side of

lower lip about 1x0.5 cm in size, oval in shape, mucosa over it appears pink and white in colour, soft in consistency, fluctuant, non-tender. Based on history and clinical examination provisional diagnosis as Fibroma was given. Routine hematologic investigations were carried out before excisional biopsy. An excisional biopsy not only confirmed the suspected diagnosis of a biting fibroma but also successfully treated her condition by removing the lesion there was no recurrence. [Fig 5]



Figure 5: Biting Fibroma of The Lower Lip

Fibrous Epulis

Introduction

Epulis is a change in gingival tissue that occurs under the influence of chronic irritation. Histologically, there are several different types of epulis. Fibrous epulis is a benign tumor of gingiva that most often occurs in the interdental papilla area as a result of local irritation (inadequate restorative fillings, carious teeth, subgingival deposits or the combination of them). Epulis is a relatively common tumor of gingival tissue and can be defined as a massive lesion that develops in response to chronic and recurrent tissue irritations that stimulate an excessive response of

the organism.¹⁰ Most pathological changes in gingival tissue are thought to be due to the reactive nature of the tissue. Although epulis is classically categorized into different subtypes, the current literature has identified three main types: Fibrous epulis, Granulomatous epulis, and Giant cell epulis¹¹. Fibrous epulis is a common benign change (enlargement) of the gingiva that most often occurs in the area of the interdental papilla as a result of local irritation (calculus, bacterial plaque, caries, inadequate restoration). The treatment of choice is surgical excision of the enlargement with its base and removal of predisposing factors to avoid recurrence.¹²

Case Report 1

A 25-year-old girl reported to the Department of Dentistry with the swelling of gingival tissue in the last year, which has increased since last month. The enlargement of the tissue caused her difficulties in performing the functions of chewing and speech. On intraoral examination, a reddish-pink, soft tissue change was observed on the upper alveolar arch on central incisors. Enlargement of the tissue 1*1.5 cm in size, was attached with a base in the region of the interdental space of teeth 11 and 12. The gingiva of the remaining teeth was swollen, red and bleeding on provocation. The enlargement was removed with a surgical scalpel under local Anesthesia without tooth extraction. A sample of gingival tissue was sent for histopathological analysis. At the follow-up examination, the surgical sutures were removed. After pathohistological examination of the removed tissue, the diagnosis was made as fibrous epulis. [Fig 6]



Figure 6: Fibrous Epulis

Case Report 2

A 18-year-old girl reported to the Department of Dentistry with the swelling of gingival tissue in the last year, which has increased since last month. The enlargement of the tissue caused her difficulties in performing the functions of chewing and speech. On intraoral examination, a reddish-pink, soft tissue change was observed on the upper alveolar arch on central incisors. Enlargement of the tissue 1*1.5 cm in size, was attached with a base in the region of the interdental space of teeth 11 and 12. The gingiva of the remaining teeth was swollen, red and bleeding on provocation. The enlargement was removed with a surgical scalpel under local Anesthesia without tooth extraction. A sample of gingival tissue was sent for histopathological analysis. At the follow-up examination, the surgical sutures were removed. After pathohistological examination of the removed tissue, the diagnosis was made as fibrous epulis. [Fig 7]



Figure 7: Fibrous Epulis

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