
CHRONIC ULCER MIMICKING ORAL SQUAMOUS CELL CARCINOMA (A CASE REPORT)

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KEYWORDS

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ABSTRACT

Introduction: Chronic ulcers are considered as the most common ulcerations and can be differentiated with oral squamous cell carcinoma (OSCC) by the presentation of its features. OSCC define as a malignant epithelial neoplasm and the most common neoplasm of the oral cavity. OSCC appears as a mixed white or reddish proliferative growth-like lesion from chronic trauma. Case and management: A 50 years old female came with a painful non-healing ulcer on the lateral right side of the tongue which had been exist since 6 months prior. There had been a gradual increase in the size of the ulcer over the past 6 months. The patient did not have any sistemic disease or bad habits such as chewing or smoking and did not consume alcohol either. Based on the examination, the right submandibular lymphnodes were palpable, tender, firm and mobile. And there was also a single oval-shaped ulcer with irregular border on the lateral aspect of the tongue in parallel with fractured and decayed lower first molar. The ulcer size was 2x1 cm in diameter, with the base covered by yellowish pseudomembran slough with indurated border. The grinding of the sharp cusp of the tooth was done, followed by the prescription of multivitamins, antibacterial mouthwash and topical corticosteroid. She was also referred to have routine blood test done. She came for the second visit after 14 days, showing improvement of the ulcer. The blood test showed no abnormal values. Discussion: Based on clinical features, the presented lesion was mimicking OSCC. According to the patient's history taking, clinical examination and appropriate investigation, the patient was diagnosed with traumatic ulcer. Ulcer resolves and heals on the removal of causative factors. Conclusion: Chronic ulcer is one of the most common solitary ulcer presenting in the oral cavity that mimicking OSCC by the presentation of its features. In this reported case, the ulcer arises due to its constant contact with lateral right of the tongue Improvement during the treatment by eliminating suspected risk factors can ruled out the possibility of OSCC thus prevent the unnecessary treatment.

INTRODUCTION

Oral mucosal lesions are commonly seen in the dental practice hence the dentist should have a proper knowledge to differentiate the lesions. Among many causes, trauma is one of the leading cause of oral mucosal disease. Oral traumatic lesions are divided into acute and chronic lesions. Clinical presentation of

traumatic lesions varies significantly and most of times, the cause and the effect can be established by thorough history taking and clinical examination. Traumatic lesion usually appears as a single lesion with erythematous, non-everted margins, with a clean base covered with a pseudomembrane. It usually painful and occur due to bite or

trauma from sharp teeth or unfitted dentures. It resolves in 7–10 days following elimination of the etiology. If there is any clinical suspicion, a biopsy is indicated¹.

Injury of the oral mucosa could result from physical, chemical and/or thermal injury that could be originated from accidental cheek biting, sharp or pointy food, sharp edges of the teeth or dentures, hot food or overzealous tooth brushing. Some injuries also could result from iatrogenic damage during dental treatment. Single ulcerations that originated from trauma or infection must be distinguished from oral squamous cell carcinoma (OSCC) that also typically presents as solitary ulcer².

Oral cancer is arguably the most serious condition that dental providers may encounter in their practice. The relatively poor prognosis associated with oral cancer highlights the importance of dental team's awareness of the disease. While many characteristics of oral cancer have endured over time, new research is revealing trends that there are changing in the way we approach its screening, diagnosis and treatment³. Oral cancer is generally classified into cancer of oral cavity and oropharynx. The oral cavity includes the lips, buccal mucosa, gingiva, hard palate, floor of the mouth and 2/3 anterior part of the tongue, whereas the oropharynx consist of the 1/3 posterior of the tongue, soft palate, tonsils and posterior pharyngeal wall. Oral squamous cell carcinoma is the most

common malignant ulcer of the oral mucosa which covers 90% to 95% of oral cancers, mainly located in the tongue, especially in the lateral posterior border. It generally affects men aged over 50, most of them with a history or risk factors of high tobacco smoking, alcohol consumption, syphilis, smokeless tobacco use, radiation therapy to the head and neck, industrial carcinogens and sunlight exposure to the lips. In some cultures, oral habits may be harmful to the oral tissues and predispose the patient to oral cancer^{4,5,6,7}.

OSCC early lesions are often asymptomatic, which can result in a delay in the patient seeking care⁸. This is emphasized by the fact that most people diagnosed with OSCC have been aware of an abnormality in their mouth for an average of four to eight months. The most common symptom is a non-healing sore or ulcer. Other potential signs and symptoms include pain, numbness, a persistent lump or thickened area, a persistent red or white patch, dysphagia, sore throat or the sensation of something "caught" in the throat.

OSCC has various clinical presentations such as exophytic (growing outward) or endophytic (growing inward), leukoplakic, erythroplakic which all of them show visible changes in the surface^{9,10,11}. OSCC are characterized with firm on palpation, which can be a helpful diagnostic clue. The color of OSCC can be white, red or, in many cases, speckled red and white. The most common site for OSCC is the tongue, especially in the

lateral and ventral surfaces. The floor of the mouth, soft palate, and tonsils are other common locations. OSCC of the gingiva is somewhat unique in that it is predominantly observed in elderly females, especially those with no known risk factors. OSCC of the lip vermilion is almost always located on the lower lip, usually in fair-skinned individuals. Upon identification and biopsy of a suspicious lesion, an oral pathologist or general pathologist will diagnose the OSCC lesion microscopically.

Differential diagnosis of oral ulcers includes traumatic ulcer, aphthous ulcer, actinomyces, syphilitic ulcers, tuberculous ulcers, Wegener's granuloma and carcinoma¹². The OSCC early lesion may be shallow ulcer with a velvety red base and a firm, raised border. The healing traumatic ulcer may resemble this early lesion because its base may be filled with reddish-pink granulation tissue. The diagnosis of traumatic ulcer is primarily based upon the recognition of the traumatic agent and the quick return to normal function after the cause has been removed⁹.

The treatment of OSCC can be surgery, radiation and or chemotherapy. Surgery may include a neck dissection if regional lymph node metastasis is involved. A lymph node with metastatic OSCC usually become enlarged, firm and non-tender¹³.

Case And Management

A 50 years old female came with painful nonhealing ulcer on the right side of the tongue since 6 months ago. There had been a gradual increase in the size of the ulcer over the past 6 months. The patient does not have systemic disease or any bad habits such as chewing or smoking and does not consume alcohol either.

At the first visit, extra oral examination of right submandibular lymphnodes were palpable, tender, firm and mobile. Intra oral examination showed an oval single ulcer with irregular border in parallel with fractured and decayed lower first molar region and the ulcer arises due to its constant contact with lateral right of the tongue. The size of the ulcer is 2x1 cm in diameter and covered by yellowish pseudomembranous slough at the base with indurated border. The base of the tongue and throat were normal and there was no other intra oral lesion detected (Fig. 1.)

The patient was treated by doing oral prophylaxis, first molar cusp grinding, improving patient's nutrition intake by giving multivitamins, antibacterial mouthwash and topical corticosteroid (triamcinolone acetonide 0,1%) was prescribed for the inflammation. The patient was also given reassurance, referred to laboratory to have routine blood test and asked to come again for follow up visit. On the second visit (14 days after the first visit), there was no abnormal values in laboratory findings and the ulcer showed progress in

healing (Fig. 2.) The patient was asked to come again for the next visit, but the patient never show up.



FIGURE 1. Intra oral finding at the first visit; a single, oval, irregular ulcer, 2x1 cm in diameter, covered by yellowish pseudomembranous slough at the base with indurated border.



FIGURE 2. Ulcer healed gradually after 14 days; at the second visit, the ulcer size were smaller, no yellowish pseudomembranous visible, no induration in palpation

Discussion

Our case report aims to provide the information about the usual traumatic ulcer case that mimicking Oral Squamous Cell Carcinoma (OSCC). OSCC appears as a mixed white or reddish proliferative growth-like lesion with raised margin and ulcerated surface with yellowish or greyish

pseudomembranous slough. The ulcer tends to be tender, indurated and fixed to the underlying tissues with palpable and tender regional lymphnodes. In this presented case, we found the persistent ulcer with proliferative growth-like and palpable regional lymphnode. Chronic traumatic ulcer usually appears as a single ulcer with loss of continuity of epithelial tissue with the base covered by yellowish-white slough that can be either symptomatic or asymptomatic with raised borders and firm on palpation. Ulcer resolves and heals on removal of causative factor with or without scar depends on extent of the damage.^{13,14.}

Tongue carcinoma is the most commonly observed OC in the oral cavity; traumatic lesions, leukoplakia and lichen planus are predominant precancerous conditions. Tongue carcinoma represents 30-40% of OCs, the lateral tongue being the most frequent site (80%), followed by ventral and dorsum. Lateral border of the tongue and ventral surface OCs are usually preceded by traumatic lesions caused by sharp cusps or sharp-edged teeth, by badly positioned teeth or by maladjusted dentures that chronically rub the mentioned areas^{15,16.} The tongue is the most common site and the majority of the patients were women as have been confirmed by other studies. Clinical manifestation of OSCC in young patients has no distinguishing features from that of the older; nevertheless, literature reports that many clinicians tend not to include OSCC as a

diagnostic hypothesis in young patients, simply because such disease is not compatible to the age range^{17,18}.

Intra oral examination showed that the patient's first molar is fractured and decayed. As a result, the ulcer formed due to its constant contact with right lateral of the tongue. We decided to grind the first molar (46) to eliminate the etiology. The continuous contact with the causes of trauma can cause no progress in ulcer healing, therefore it is important to discover the local etiology that cause a lesion^{19,20}.

Based on the clinical examination, the patient diagnosed with chronic traumatic ulcer. The main therapy was removing the etiology factors, and the supportive therapy was given to speed the healing process. Corticosteroid is recommended for recurrent ulcers. The ulcer in this case showed significant improvement after administration of comprehensive treatment including communication, information and education about the disease as well as prescribing corticosteroid drug, antiseptic mouthwash and multivitamins¹⁹.

Traumatic ulcers are recognizable if the clinician can determine the cause of the injury, however the origin of the trauma is obscure in some cases thus can cause the difficulty in establish the proper diagnosis. At times traumatic lesions, especially those occurring on the tongue may persist for weeks; these lesions are then counted in the differential diagnosis of persistent ulcers²⁰. In

most cases, if the traumatic ulcer is persistent, although the etiology factors had been removed after 2 weeks, it is indicated that the patient must be referred to undertake biopsy to ensure the suspect for malignancy.

The malignancy is determined not only by observing the clinical examination, but also by supportive examination. The clinician should know the possibility of a lesion that can change into carcinoma. The persistent lesion that appear as chronic ulcer, white or red colour, and swelling on mucous membrane must be confirmed by biopsy^{19,20,22}. Histologically, these ulcers are deep lesions involving the underlying muscle, which may explain the process of slow healing and the tissue eosinophilia. Healing may take up to eight weeks. Eosinophils are found in areas of muscle damage. The treatment of choice is surgery but elimination of the causative factor should come first, such as the grinding of sharp teeth, replacement of broken fillings, the use of a thin mouth-guard, or whatever else is necessary. Conservative surgical removal with clean margins is the treatment of choice. Sometimes, an incisional biopsy may lead to complete recovery, other times; it may recur and require further surgery^{20,21}.

There is also misconception that chronic irritation is a cause of oral cancer. Research has not proven a causal relationship between chronic irritation, such as a rough tooth, denture, or cheek-chewing habit, and the development of oral cancer. However, some

researchers have observed an association between chronic inflammation and oral cancer. A new area of research is the association between mediators of inflammation and cellular changes that may predispose a person to cancer. Many of these factors are yet unknown⁶.

The prognosis of traumatic ulcer is good if diagnosed and treated early. Clinical presentations can be deceiving sometimes. Proper history taking and thorough clinical examinations and appropriate investigations and its interpretations are needed to confirm the diagnosis of the case^{20,21}.

CONCLUSION

Traumatic ulcer is one of the most common solitary ulcer presenting in the oral cavity mimicking OSCC by the presentation of its features. Early diagnosis can help the patient with malignancy to get proper treatment with better prognosis. The small-sized malignancy lesion can metastasize rapidly. Most carcinoma is found in advanced stages that makes it difficult to cure. The main therapy for traumatic ulcer is removing etiology factors and monitoring the lesion. If the ulcer is still persistent 2 weeks after removing etiology factor, we should suspect it as malignancy that needed biopsy examination to ensure the final diagnosis.

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