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Oral Ulcerative LesionsA Diagnostic Dilemma – A Case Report

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ABSTRACT: Diagnosis of oral ulcerative lesions might be quite challenging. This case report and narrative review aims to include a comparative study of all oral ulcerations from major to minor and its enigma in diagnosis. A Female patient, aged 63 years reported to the department ? with chief complaints of Pain, reduced mouth opening, burning sensation and loss of taste since 3-4 weeks. Patient has a history of Diabetes since 30 years. Patient is a Tobacco chewer since 43 years with a habit of keeping tobacco in mouth and falling asleep. On clinical examination, owing to the location of the ulcers – lateral surface of the tongue and Patients habit history, the ulcer was thought to be an OSCC. Patient was referred for Histopathological examination, but due to poor immune health and low economic status a more conservative approach was followed that consisted of application of Hexigel, oral care procedures& Elimination of sharp cusps if present. It was noted after two weeks, the ulcerations gradually reduced and then resolved. Hence, all ulcers are not SCC and all SCC are not ulcers?Ulcerations are characterized by defects in the epithelium. Due to diversity of causative factors and presenting features, diagnosis of oral ulcerative lesions might be quite challenging. In this situation it becomes difficult to diagnose them clinically as they vary from small recurrent ulcers to non healing ulcers and this ends up in a misdiagnosis. Chronic ulcer is one of the most common solitary ulcer presenting in the oral cavity that mimics 'OSCC by the presentation of its features. In this reported case, the ulcer arises due to constant contact of the lateral right and left surface of the tongue with the sharp cusps of the posterior teeth. Improvement in the lesion was noted during the treatment by eliminating suspected risk factors that helped in ruling out the possibility of OSCC; thus prevents unnecessary invasive procedures.

KEYWORDS: Ulcer, OSCC, Healing ulcer, Non healing ulcer, Diagnostic Dilemma.

I. INTRODUCTION

An ulcer is a deeper crater that affects the underlying connective tissue and penetrates the whole thickness of the surface epithelium. It may also be described as a breach or local defect brought on by active inflammation that compromises the integrity of the mucosa. The surface of the exposed connective tissue is frequently covered in a fibrinous exudate and necrotic. [1] The most frequent oral mucosal lesion that is seen is an ulcer. [1] They might appear as a single lesion or as many lesions on the skin and/or mucosa.

The differential diagnosis is narrowed by the pattern of lesions, constitutional indications and symptoms, and presence of systemic characteristics.[1] The duration an ulcer takes to develop, the quantity of ulcers, and the etiological factors can all be used to categorise ulcers. An ulcerative lesion that persists for more than two weeks is categorised as a chronic ulcer. Acute ulcers are usually unpleasant and last no more than two weeks. On the other hand, chronic ulcers can last more than two weeks and are associated with a history of similar events with irregular healing. A single ulcerative lesion is referred to as a "solitary ulcer," whereas many ulcerative lesions are referred to as "multiple" ulcers. [2] Patients with oral ulcerative lesions may initially report to a general practitioner or a dental consultant. On the healing capacity, the ulcerative lesions of the oral cavity can be classified into Healing Ulcers and Non Healing Ulcers. Since there is overlap in the clinical appearance of oral ulcerative lesions and it is difficult to distinguish them from non-healing ulcers, diagnosing and treating them is seen as a difficult undertaking. Whether it's aphthous stomatitis or the early stages of a non-healing ulcer, the majority of oral ulcerative lesions share a similar clinical presentation. Trauma, damage, and bacterial or viral infections that are followed by the creation of vesicles or bullae and eventually rupture to form an ulcerative lesion with raw bleeding and degraded surfaces are the main causes of the condition. A comprehensive case history is crucial for the clinical

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diagnosis of any ulcerative lesions; but, in certain cases, a thorough case history may not be sufficient to prevent a misdiagnosis that could cause serious complications for the patient. It is therefore always preferable to have a histological investigation done. Histopathological analyses are not without limitations. Although the patient and their family members typically avoid them since they are invasive procedures, it is not always advisable to undertake a histological study for every tiny ulcer because of the associated costs, time, and trauma. The significance of a proper clinical diagnosis and precise treatment planning is increased by these variables. In this case report we highlight the diagnostic dilemma while diagnosing oral ulcers and its detrimental effects on treatment planning and patients own oral health.

II. CASE REPORT

A 63 years old, female patient reported to the department of oral pathology and microbiology with chief complaints of pain, reduced mouth opening, burning sensation and loss of taste since 3 weeks. Patient reported a medical history of Diabetes Mellitus since 30 years and a habit history of Tobacco chewing since 43 years, keeping the tobacco in mouth and falling asleep. On clinical examination of the oral cavity, the Patient‘s tongue revealed an oval ulcerative lesion with irregular borders on the right lateral surface about 2cm in size, firm to touch, elevated margins, indurated borders and a white yellow pseudo membrane which can be scraped off. An ulcerative lesion of about 1 cm was noted on the left lateral surface of the tongue. Tongue mobility was normal and no fixation to the underlying tissue was noted. Sharp lower posterior teeth were also noted. On Extra-oral examination, the lymph nodes were non tender and non palpable.

On detailed history evaluation, the lesion seemed to be insidious in onset and gradually progressive. The ulcer due to its location and patient history mimicked initial stage of Oral Squamous Cell Carcinoma. On consultation many of them diagnosed it as a non-healing ulcer. A provisional diagnosis of OSCC was given and a differential diagnosis of traumatic ulcer was considered. The proposed investigation included biopsy with histopathological correlation and PET scan. The clinical pictures, after informed consent were taken and are below as **Fig 1 and Fig 2.**

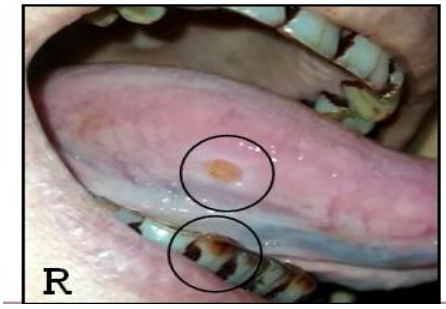

Fig 1

Fig 2

Fig 1 shows the presence of an ulcerated lesion on the right lateral surface of the tongue with erythematous halo and a pseudo-membrane, Sharp cusps noted.

Fig 2 shows the initiation of an ulcerated lesion on the left lateral surface of the tongue , Sharp cusps are noted.

III. DISCUSSION

Defects in the oral epithelium, the connective tissue beneath it, or both can result in oral ulcerative lesions. One of the body parts most prone to excruciating ulcerations is thought to be the oral mucosa. Ulcers are categorised as acute (short term) or chronic (long term) depending on how long they have been present.

Acute ulcers include chancres, aphthous ulcers, herpetic ulcers, and traumatic ulcers last for no longer than three weeks before spontaneously healing. An ulcerative lesion is classified as chronic if it is not healed after two weeks; if it is, it is called acute. Conversely, recurrent ulcers have a history of comparable occurrences with sporadic healing. Because of the dilation of the blood vessels, clinically acute oral ulcers typically have an oval shape with an erythematous periphery. Even though these lesions are typically painful, the pain is comparatively less intense when a yellowish-fibrous membrane layers over the ulcer bed. Hand-foot-mouth disease, erythema multiform, necrotizing ulcerative gingivitis, primary herpetic gingivostomatitis, herpes zoster infection, herpangina, trauma (i.e., traumatic ulcers), chemotherapy (i.e., chemotherapy induced ulcers), necrotisingsialometaplasia, or plasma cell stomatitis are among the most common causes of acute oral

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ulcerations. Compared to acute ulcers, chronic ulcerative lesions develop more slowly and persist for longer than two weeks. The most common conditions linked to chronic oral ulcerative lesions include several vesiculobullous entities, lupus erythematous, tuberculosis, certain mycoses, eosinophilic ulcers, and oral cancer.

Epithelial neoplasms, solid tumours such as lymphomas, and minor salivary gland cancers are examples of malignant ulcers. The most prevalent cancer in the oral cavity is oral squamous cell carcinoma. It could appear as an ulcerative, endophytic, reddish-white lesion. Lesions that are ulcerative in nature typically have a rolled, indurated border, a crater-like appearance, and no symptoms at all. The only accurate way to diagnose a disease is through a biopsy, and the available treatments change based on how severe the condition is.

The ulcer in this case, which measured 2 cm in size and was gradually growing larger, was initially diagnosed by some clinicians as a non-healing ulcer based on the chief complaints of pain, burning sensation, and discomfort on the left and right lateral borders of the tongue. Several of the clinicians suggested a biopsy and PET scan as part of their inquiry. Some, on the other hand, advocated a more conservative diagnosis strategy that included an observation period of seven to ten days, rounding off the sharp posterior teeth as identified in the clinical evaluation, cessation of tobacco chewing habit, applying Hexigel to both ulcerative lesions, and other oral health care procedures. Steroidal medications were avoided due to medical history of the patient. The patient was presented with both diagnostic and treatment options, but she chose the conservative route out of fear and anxiety as well as financial concerns and poor overall health. **Table 2** below provides a comprehensive treatment plan that was used. After a 10-day observation period, the ulcerative lesion gradually subsided, the pseudomembrane and erythematous halo disappeared, the mouth opening increased, and the lesion vanished in the next follow-up. Because of the patient's medical history of diabetes and the existence of posterior sharp cusps from tobacco chewing and pouching while sleeping, the lesion was supposed to mimic Oral Squamous Cell Carcinoma but a proper clinical evaluation and diagnosis will eliminate the requirement for a biopsy or other invasive procedure.A similar case has been presented in Chronic Ulcer Mimicking Oral Squamous Cell Carcinoma : A Case Report. [5], with same approximate age, size of the lesion and chief complaint. A similar conservative approach was used in this case and a waiting period of 15 days was followed, but there were no signs of regression of the lesion and it turned out to be a Non healing ulcer. Hence there is always poses a diagnostic dilemma to dental physicians so as to identify an oral ulcerative lesion timely.In this reported case, the ulcer arises due to constant contact of the lateral right and left surface of the tongue with the sharp cusps of the posterior teeth. Improvement in the lesion was noted during the treatment by eliminating suspected risk factors that helped in ruling out the possibility of OSCC; thus prevents unnecessary invasive procedures.

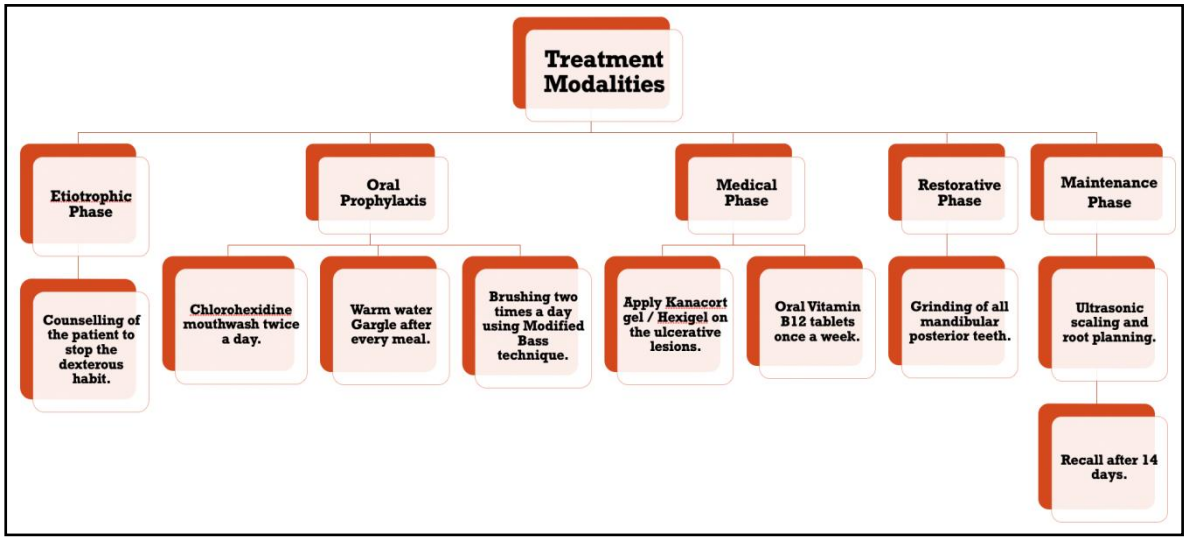

Table 2 : Treatment Modalities that can be referred for a conservative approach towards oral ulcerative lesion.

IV. CONCLUSION

Diagnostic challenges have been associated with oral ulcers. Their clinical appearances have overlapped, which is the reason for this. The issue is complicated by the fact that oral ulcers can easily be infected because of their easy access to the oral cavity, and the thinness of the oral mucous membrane makes diagnosis more difficult. Localised oral ulcers may be more challenging to diagnose, even though some types can be identified by their correlation with constitutional signs and symptoms or lesions on the skin and/or mucous membranes in other areas.Because they are harder to identify based solely on clinical features, the majority of oral ulcers are biopsied. Sometimes it's challenging to differentiate because of the similarity in histologic features brought on by saliva and microflora contamination, which obscures the underlying pathology. [4]

Because of the similarities in appearance and the clinician's limited exposure to conditions that may cause the lesions, diagnosing and treating oral lesions can be difficult. Palliative management options are not as beneficial as cause-based treatment options. As a result, it is essential that doctors perform a thorough clinical examination and obtain a complete patient history.

If an ulcerative lesion with an unknown etiology does not heal after two weeks or does not respond to treatment targeted at a likely known etiology, a biopsy should be only then considered. This case report demonstrates how a conservative approach and appropriate response towards this approach led to the timely and accurate diagnosis of a minor ulcer that mimicked OSCC without the need for invasive procedures such as biopsy and histopathological examinations.

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