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Solitary Recurrent Major Aphthous Ulcer of the Lower Labial Mucosa: A Clinically Oriented Case Report

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Abstract: ***Recurrent aphthous stomatitis is a frequently encountered oral mucosal disorder marked by episodic ulcer formation and associated discomfort. This report presents a case of a 26-year-old male who reported with a painful ulcer on the lower labial mucosa and a prior history of similar recurring lesions over the past 1–1.5 years. The current ulcer measured approximately 1.5 cm, exhibiting a well-defined erythematous margin and a fibrinous base, accompanied by a burning sensation during food intake. The patient's medical and dental history was non-contributory, and no associated systemic or dermatological manifestations were observed. Based on clinical findings and history, a diagnosis of major recurrent aphthous stomatitis was established. The management approach included topical medication and oral prophylaxis, resulting in satisfactory healing on follow-up. This case underscores the importance of careful history taking and clinical examination in diagnosing recurrent oral ulcers, as well as the effectiveness of conservative symptomatic management in such cases.***

Keywords: recurrent aphthous stomatitis, oral ulcers, labial mucosa lesion, topical treatment, clinical diagnosis.

1. Introduction

Recurrent aphthous stomatitis (RAS) represents one of the most frequently encountered ulcerative conditions affecting the oral mucosa, characterized by recurrent episodes of painful ulcerations in otherwise systemically healthy individuals. The reported prevalence varies widely across populations, affecting approximately 5–25% of individuals, with a higher occurrence in young adults [1,2].

Based on clinical presentation, RAS is broadly categorized into minor, major, and herpetiform variants. Among these, major aphthous ulcers are relatively uncommon but are clinically significant due to their larger size, increased depth, prolonged healing duration, and potential to heal with scarring [3]. These lesions often interfere with essential oral functions such as speech and mastication, thereby adversely impacting the patient's quality of life.

Although the precise etiology remains uncertain, RAS is widely considered a multifactorial disorder. Several contributing factors have been proposed, including genetic susceptibility, nutritional deficiencies, local trauma, hormonal variations, and systemic conditions, particularly gastrointestinal disturbances [4,5]. Immunological mechanisms, especially alterations in cell-mediated immunity and increased release of inflammatory cytokines, are believed to play a central role in disease pathogenesis [6].

Clinically, major aphthous ulcers typically present as well-defined, round to oval ulcers exceeding 1 cm in diameter, surrounded by an erythematous halo and covered by a yellowish fibrinous membrane [3,7]. Given their recurrent nature and variable presentation, careful clinical evaluation is essential to establish an accurate diagnosis and to rule out other ulcerative conditions.

This case report describes a patient with recurrent major aphthous ulcer involving the lower labial mucosa, emphasizing the clinical features, possible associated factors, and therapeutic approach.

2. Case Report

A 26-year-old male patient reported to the Department of Oral Medicine and Radiology with a chief complaint of poor dental aesthetics due to deposits on teeth for the past 3 months and an ulcer on the lower lip for 3 days.

The patient was apparently asymptomatic 3 months prior, when he noticed yellowish discoloration in the anterior teeth region. He denied any history of bleeding gums or halitosis. Additionally, the patient reported the presence of an ulcer on the lower labial mucosa associated with a burning sensation, especially during the consumption of hot and spicy foods.

The ulcer initially appeared as a small lesion resembling the size of a mustard seed and gradually increased to its present size of approximately 1.5 cm. The patient also reported a history of recurrent oral ulcers over the past 1–1.5 years, with episodes resolving spontaneously within 5–6 days without treatment. The most recent episode occurred 4 months prior. A history of gastrointestinal disturbances was noted. There was no history of fever, vesicles, trauma, stress, or lesions on the skin, genital, or ocular regions.

The patient's past medical history was non-contributory, with no history of systemic illness or drug allergies. Past dental history revealed extraction of teeth 35, 44, and 46 due to caries. Personal history indicated fair oral hygiene practices with once-daily brushing and no deleterious habits.

General physical examination revealed a well-oriented patient with normal vital signs. Extraoral examination was unremarkable, with no lymphadenopathy.

Intraoral examination revealed stains and calculus deposits, along with a solitary ulcer on the lower labial mucosa

opposite tooth 42. The ulcer was approximately 1.5 cm in diameter, round in shape, with well-defined margins, an erythematous halo, and a pseudomembranous white base. The lesion was tender on palpation, with no bleeding or discharge.

Based on clinical features and history, a provisional diagnosis of recurrent aphthous stomatitis (major type) was made.

Treatment & Follow-Up

The patient underwent complete oral prophylaxis. Symptomatic management was initiated with topical application of choline salicylate (8.7%) and lidocaine (2%) gel three times daily for 5 days.

At follow-up after 10 days, the lesion showed complete resolution with no residual scarring, and the patient reported relief from pain and discomfort.

3. Discussion

Recurrent aphthous stomatitis is a chronic inflammatory condition characterized by repeated episodes of oral ulceration with periods of remission. The present case exhibits features consistent with the major variant of RAS, including increased lesion size, associated pain, and a history of recurrence over an extended period, which aligns with previously reported clinical patterns [3,7].

The underlying pathogenesis of RAS is complex and not completely understood; however, it is widely accepted that multiple predisposing factors contribute to its development. In this case, the patient reported a history of gastrointestinal disturbances, which has been implicated as a potential contributing factor in several studies. Altered gastrointestinal function may lead to deficiencies of essential nutrients such as vitamin B12, folate, and iron, thereby increasing susceptibility to mucosal breakdown and ulcer formation [5,9].

The lesion in the present case was located on the lower labial mucosa, a site commonly affected in RAS. The clinical appearance- a solitary, round ulcer with an erythematous halo and pseudomembranous base- was characteristic and aided in establishing the diagnosis. The absence of systemic involvement, vesicular lesions, or extraoral manifestations helped exclude other conditions such as herpes simplex infection, vesiculobullous disorders, and Behçet's disease [10].

Management of RAS is primarily directed toward symptomatic relief and reduction in recurrence. In this patient, topical application of a combination of choline salicylate and lidocaine provided effective pain control and promoted healing. Such topical agents are widely used in mild to moderate cases due to their anti-inflammatory and analgesic properties [8]. In cases with increased severity or frequent recurrence, topical corticosteroids are often considered the treatment of choice [11].

Although RAS is generally self-limiting, its recurrent nature necessitates patient education regarding potential triggering factors and the importance of maintaining good oral hygiene. Identification and correction of underlying systemic or nutritional factors may further help in reducing the frequency of episodes and improving overall patient outcomes [4, 9].

4. Conclusion

Recurrent aphthous stomatitis, particularly the major variant, can significantly affect a patient's quality of life due to pain and recurrence. Early diagnosis based on clinical features and thorough history is essential for appropriate management. Identification of associated factors such as gastrointestinal disturbances may aid in long-term control and prevention of recurrence. Conservative topical therapy remains effective in most cases, as demonstrated in the present report.

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Figures

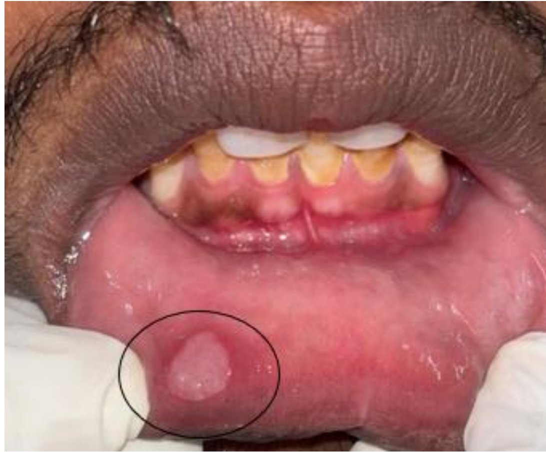

Figure 1: Intraoral photograph showing solitary ulcer on lower labial mucosa opposite 42

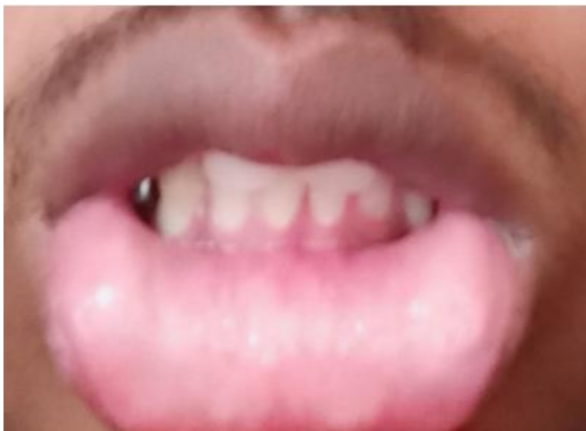

Figure 3: Post-treatment image showing complete healing after 10 days