



Case report

MANAGEMENT OF RECURRENT APHTHOUS STOMATITIS IN A YOUNG MAN WITH FOOD ALLERGIES: A CASE REPORT

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ABSTRACT

Recurrent aphthous stomatitis (RAS) is the most frequent oral condition, estimated to affect over 20% of the worldwide population, with a higher prevalence in females and young. Despite the benignity of aphthae ulcerations, their recurrence may invalidate the quality of life of the subjects, and ongoing treatments based on the use of corticosteroids -both topical or systemic- are needed. Nevertheless, a proper pre-treatment investigation of the elements triggering RAS may be beneficial in reducing the vicious circle related to them. The present paper reports a case of RAS to describe diagnostic procedures and treatment.

Keywords: *stomatitis, inflammation, pain, relief, steroid*

INTRODUCTION

Recurrent aphthous stomatitis (RAS) is the most frequent oral condition (1), estimated to affect over 20% of the worldwide population, with a higher prevalence in females and young (2).

The RAS etiology is still debated, but its onset seems associated with various triggering factors, such as local traumatism, stopping smoking, nutritional deficiencies, hormonal changes, food allergies, and stress, all acting on genetic-immunological predisposed subjects (3).

Clinically, aphthae appear as single or multiple roundish, not bleeding ulcerations of the oral lining mucosa, covered by fibrin, and surrounded by a thin inflammatory halo (4). RAS may be characterized by minor, major, or herpetiform ulcerations according to size (5, 6) and is dichotomized into simple and complex forms according to the lack or presence of extra-oral involvement. The latter is associated with systemic diseases such as Behçet syndrome (7), PFAPA syndrome (periodic fever, aphthous stomatitis, pharyngitis, and cervical adenitis) (8), Sweet syndrome (9), or celiac disease (10).

Despite being benign, the recurrences impair the daily activities of the subjects affected (11). The treatments available do not eradicate the pathology but aim to reduce the symptomatology, mainly discomfort, pain, and recurrences. The

Received: 23 June 2022

Accepted: 28 July 2022

ISSN: 2038-4106

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CASE REPORT

A 35-year-old man came to the Unit of Oral Pathology of the University of Campania, “Luigi Vanvitelli”, referring to a history of recurrent painful “vesicles” variable in size and affecting various sites of his mouth.

First, an anamnestic interview was conducted to establish any possible factors associated with its onset. The patient said he has never smoked and does not suffer or have suffered any particular disease in the past. He did not take any drugs and reported not having any digestive problems or changes in bowel habits, seeming otherwise healthy. At the intra-oral examination, various small roundish ulcerations were detected on the right lateral margin of the tongue and in the upper left vestibular fornix (Fig. 1).

The ulcerations did not bleed and clinically resembled aphthae. Once diagnosed based on the referred recurrences and clinical data (roundish, not bleeding ulcerations smaller than 1cm of the lining mucosae), a diagnosis of RAS with minor aphthae was defined.

Considering the patient referred the onset of the present lesions a week before and that minor aphtha spontaneously healed within approximately two weeks, the only treatment suggested was the use of adhesive gel formulations based on 0.2% hyaluronic acid. It must be applied to the ulcers, forming a physical barrier and quickly reducing pain, bacterial superinfections, and mechanical friction, thus promoting healing and relieving pain (12).

Blood tests were prescribed to investigate any triggering factor associated with RAS. In detail, glycemia, blood count, iron status through sideraemia, blood transferrin and ferritin amounts, vitamin B and folic acid amounts, celiac markers (to exclude any co-occurring silent celiac disease), and PRIST (Paper RadioImmunoSorbent Test) to count the total IgE amount and consider any allergic diathesis, were prescribed.

Ten days later, the patient returned, reporting the healing of the sites previously affected by RAS and exhibiting the blood test results. They revealed no iron deficiencies, and the vitamin B group and folic acid were in the normal range, as well as glycemic status and blood count. The sole parameter that increased over the normal range was the PRIST, whose increase is a non-specific indicator of allergies. At this point, an allergic diathesis was hypothesized, and a fecal parasitological test was prescribed to exclude parasitic infections, which can justify the increase in PRIST in lack of allergies. On the same occasion, a RAST test was also requested to measure the IgE amount to the most common allergens (foods, drugs, pollen, mites, moulds, and latex) to consider some food and topical allergies responsible both for IgE increase and RAS.

The RAST reported moderated (2,500 U/ml) increase in IgE for peanuts and hazelnut and a very high (22,300 U/ml) increase in chocolate IgE. He then reported to work as a business consultant for a banking society, and in that period of the year (March-May), he felt overwhelmed by the workload and used to eat lots of chocolate bars and bread with chocolate and hazelnut cream. Meanwhile, new aphthae were discovered on the ventral tongue and the labial lower right mucosa.



Fig. 1. Various aphthous ulceration of the covering mucosa of tongue margin and upper fornix.

Based on referred eating habits, the RAST, and the lack of any change in other blood findings, a diagnosis of RAS associated with food allergies to chocolate and hazelnuts was made. Hence, the patient was instructed to have a diet free of the allergens found to treat the recurrences, while a drug therapy was established to treat the actual aphthae.

Despite the use of local corticosteroids (clobetasol propionate in cream or betamethasone sodium phosphate effervescent tablets as a rinse) would have been indicated, it was opted for the following therapy, given the high tolerance and the rarity of undesirable effects, the allergic nature of the trigger, and to avoid antifungal coverings in association with the cortisone -as desired by the patient:

Sodium dichromoglycate, SDCG (500 mg/granules in dispersible sachets), three times a day per three weeks to mouthwash and then swallow. SDCG inhibits the IgE-mediated release of histamine and other substances in type-I immune reactions, reducing mast cells' degranulation of proinflammatory cytokines (13).

Pentoxifylline (400 mg tablets) is ingested twice daily every three weeks. Pentoxifylline is used for its rheological properties on red blood cells (reducing blood viscosity) and fibrinolytic and inhibitory action of leukocyte activation (14).

The patient returned for follow-ups every three months for 1.5 years, referring to maintaining a diet free from the allergens indicated, and did not report any RAS on any occasion.

CONCLUSION

Despite the benignity of RAS, recurrence may invalidate the quality of life of the subjects, and continuous treatments based on the use of corticosteroids -both topical or systemic- are needed. However, a proper pre-treatment investigation of the factors triggering RAS (15) may be beneficial to reducing the vicious circle and can orient toward therapeutic alternatives with fewer adverse effects related to multiple steroid therapies (16).

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