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SHORT COMMUNICATION

Pemphigus mimicking aphthous stomatitis

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BACKGROUND: The aim of this report is to highlight the case that pemphigus vulgaris (PV) may mimic aphthous stomatitis. Pemphigus classically causes persistent oral ulceration.

METHODS AND RESULTS: We report five patients from southern Europe, who presented with recurrent oral ulceration mimicking aphthous stomatitis, but who proved by histology, immunostaining and antibodies against epithelial intercellular substance to have PV.

CONCLUSION: It is advisable to assay antibodies against desmoglein 3 in patients who appear to suffer recurrent aphthous stomatitis (RAS) with atypical ulceration for location and in adulthood.

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Keywords: antibodies against epithelial; aphthae; pemphigus; recurrent aphthous stomatitis

Introduction

Recurrent aphthous stomatitis (RAS) is a pathological condition characterized by the development of painful, recurring solitary or multiple recurring necrotizing ulcerations of the non-keratinized oral mucosa typically with an onset in childhood (1).

The ulcers in RAS are typically very well-defined, and have an inflammatory halo. They are usually much <1 cm in size (minor aphthae) but some persons have deeper or larger lesions, which can last weeks and resolve with cicatrization (major aphthae). Rarely, it is possible to observe multiple ulcerations (herpetiform aphthae) (1).

The differential diagnosis of RAS includes entities such as periodic fever, adenitis, pharyngitis and aphthae (PFAPA) (2), Behcet's syndrome (3), Sweet's syndrome (4) and HIV infection (5), and it has become evident that drugs such as alendronate (6) and nicorandil (7) can also induce lesions clinically similar to RAS.

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More rarely aphthous-like lesions can be the expression of vesiculobullous lesions such as pemphigus vulgaris (PV) (8, 9) and, because the latter is potentially lethal, this distinction is clearly important. Because this is not widely known in either the medical or dental communities, we report five patients who presented in this fashion.

Subjects and methods

Five adult patients with recurrent oral ulceration characterized by an adult onset were seen by oral medicine specialists between February 2003 and September 2004. Nobody patients used drugs to treat this pathology and did not show concomitant disease.

Although all were initially clinically diagnosed as possibly suffering RAS from the clinical appearance (Fig. 1) of round or ovoid ulcers of 4–5 mm diameter and their recurrent pattern, but their later age of onset compared with the classical appearance of RAS in preteen children, led us to assay serum antiepithelial antibodies by indirect immunofluorescence (normal human epithelium as substrate) to help exclude PV.

None of these patients had, or had had, lesions on the skin or other mucosae.

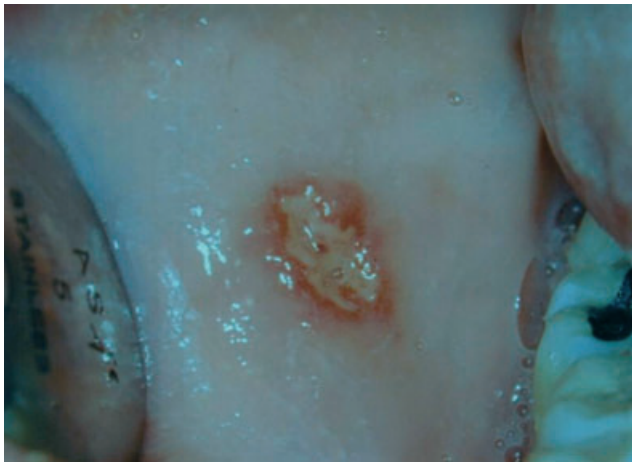

Figure 1 Aphthous lesion to cheek.

Table 1 Data for the five patients clinically diagnosed as recurrent aphthous stomatitis (RAS), but final diagnosis of pemphigus

				Mouth ulcers				
Subjects	*Country of origin*	*Gender*	*Age of onset*	*Location*	*Clinical appearance*	*Number per episode*	*Duration average (number of days)*	*Titre of serum antiepithelial antibodies*
1	Italy	F	17	Vestibule	Ovoid ulcers, 5 mm diameter	2	10	1:80
2	Italy	F	31	Ventral tongue	Ovoid ulcers, 5 mm diameter	2	12	1:160
				Floor of mouth	Ovoid ulcers, 4 mm diameter	1		
3	Italy	M	34	Soft palate	Ovoid ulcers, 5 mm diameter	3	12	1:160
4	Italy	F	22	Vestibule	Ovoid ulcers, 4 mm diameter	3	11	1:160
5	France	F	39	Soft palate	Ovoid ulcers, 4 mm diameter	3	10	1:160

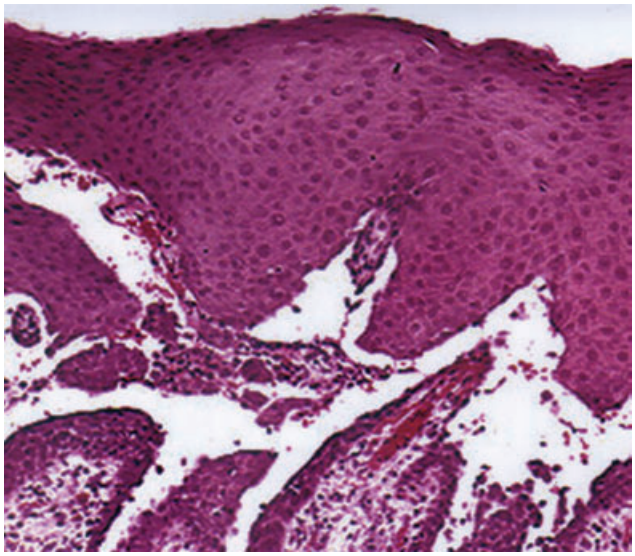

Figure 2 Histological examination with intraepithelial separation (haematoxylin-eosin; 30×).

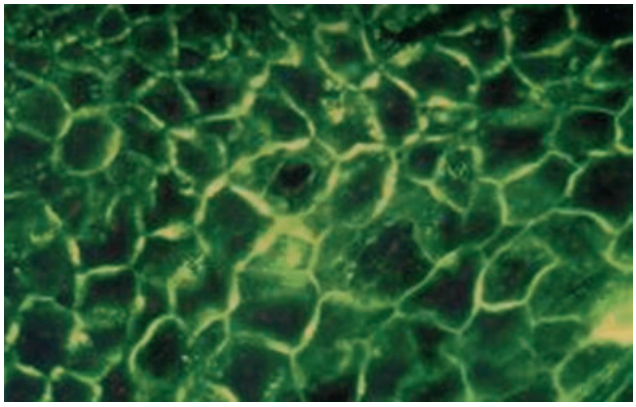

Figure 3 Direct immunofluorescence examination show the typical intercellular immunoglobulin G (IgG) deposits.

Results

All five patients showed low titre positivity for serum antibodies (< 1:160) against epithelial intercellular substance (Table 1). Histological and direct immunofluorescence examination (Figs 2 and 3) of perilesional oral biopsies confirmed the diagnosis of PV in all five patients. Two of the five patients proved to be HLA-DR4.

All our patients received immunosuppressive therapy (systemic prednisone) and during the follow up of 12 months, nobody developed vesiculoerosive lesions on oral mucosae or other mucosae and on skin.

Discussion and conclusions

In more than 50% of cases, PV commences with oral lesions, and these may precede the cutaneous lesions by several months or may be the major, if not the only, manifestation in some patients for a prolonged period (10, 11). What is not widely appreciated, is that the erosive oral lesions can occasionally be clinically very similar in appearance to, and can appear to heal spontaneously, and can therefore be misdiagnosed as, aphthous lesions. It is generally understood in PV that the oral lesions persist but, in the current cohort of patients, the lesions did appear to heal, only to recur later, thus mimicking RAS.

However, it is noteworthy that the onset of ulceration in all our patients was in the second decade or later, whereas RAS typically start in early childhood (1). In contrast, PV only rarely appears in children or adolescents (12–16). The other feature in our cases was of ulceration affecting the soft palate, buccal vestibule and floor of mouth, locations that can be affected by RAS, although soft palate lesions in RAS are somewhat uncommon. This experience suggests it might be prudent to assay antibodies against desmoglein 3 in patients who appear to suffer RAS with ulceration of onset in adulthood, or where the history or clinical appearance are atypical, especially in patients from racial groups predisposed to PV, such as those of south European descent as in the current series, or in patients of Asian descent.

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