

# ACTAS

## Derma-Sifiliográficas

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### CASE AND RESEARCH LETTERS

## Geographic Stomatitis

### Estomatitis geográfica

To the Editor:

Geographic tongue (GT) is a trivial disorder, first described in 1831, that affects between 1% and 2% of the general population. It affects patients of all ages and has a slight male predominance (5:4).<sup>1</sup> The lesions are located on the anterior two-thirds of the tongue and present in 2 clinical patterns: a) as reddish macules with rounded borders, which, due to confluence of the macules, give the appearance of a map (hence the name geographic), attributed to a loss of papillae in the affected areas; and b) lesions similar to the above but surrounded by a whitish, slightly raised border. The lesions migrate daily, regardless of the form of clinical presentation. No effective treatment for this disorder is known. Findings of GT lesions at sites other than the tongue are infrequent and rarely reported.

The relationship between GT and psoriasis is the subject of debate. Histopathology findings are congruent with those of psoriasis<sup>1,2</sup> and the incidence of GT is higher in patients with psoriasis,<sup>3</sup> although it seems clear that they are different entities. We report 2 cases of geographic stomatitis.

The first case was a 27-year-old white man who was seen in our department for lesions that had appeared some time earlier on the mucosa of the lower lip. The lesions changed each day, showing centrifugal growth, and disappeared within 7 days; they were asymptomatic except for slight discomfort on eating salty food. The patient had no personal or family history of psoriasis.

Physical examination revealed circinate plaques with an erythematous center surrounded by a whitish, slightly raised border, on the mucosa of the lower lip (Figure 1) and retrolabial vestibule. Similar lesions were found on the sides of the tongue, together with depapillated areas on the dorsal surface of the tongue, compatible with GT. The rest of the examination, including nails, genitals, palms, and soles, was completely normal.

Treatment was started with 100 mg/d of tetracycline with no change after 1 month.

Case 2 was a 30-year-old Hispanic woman who consulted for lesions that had appeared 2 years earlier on the mucosa of the lower lip; the lesions showed daily changes, with centrifugal growth, and disappeared after a few days. The

lesions produced a mild burning sensation after eating citrus fruits or acidic food. The patient had a history of GT since the age of 18 years and this condition occasionally followed a parallel course to the lip lesions.

Physical examination revealed annular plaques with an erythematous center and a slightly raised whitish border. The examination also revealed a fissured tongue, although without GT lesions, and a palatine torus. No treatment was instated.

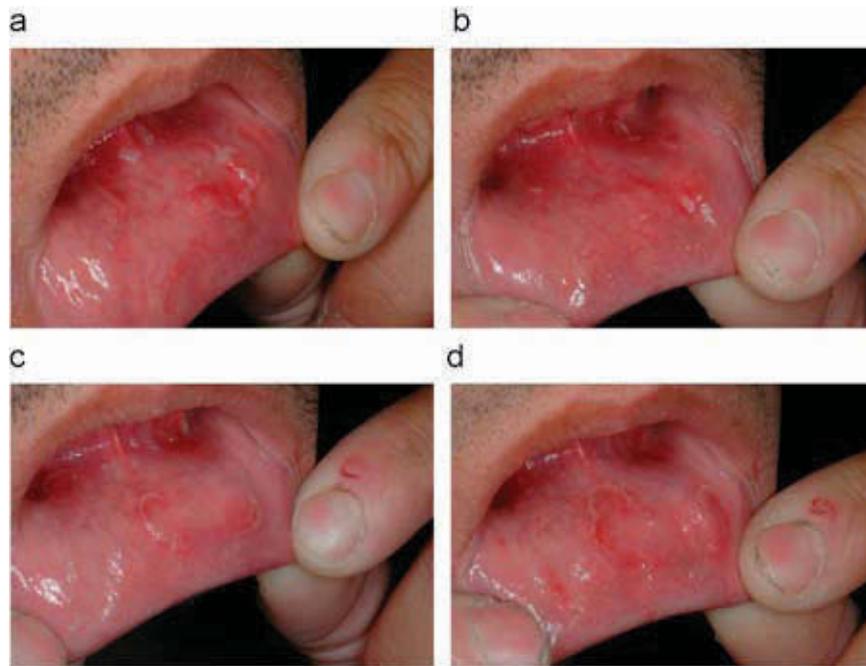
The histopathology studies in both patients showed similar findings, revealing an acanthotic epithelium with spongiosis and marked adventitial edema. The studies also revealed a diffuse, superficial inflammatory infiltrate composed of neutrophils showing exocytosis and that formed microabscesses in the most superficial areas of the mucosa (Figure 2).

Although GT is a very common finding, similar lesions in the oral mucosa at sites other than the tongue are rare. This condition has been given different names since its identification by Cooke in 1955. Besides geographic stomatitis, which we consider to be the most appropriate name, the condition has also been called ectopic geographic tongue, stomatitis areata migrans, migratory stomatitis, erythema migrans, erythema circinatum migrans, annulus migrans, ectopic migratory erythema, and Cooke disease.<sup>2,4</sup> Approximately 50 cases have been reported to date and all of these have been published in dental journals as isolated cases<sup>1,5,6,7</sup> or short series.<sup>2,4</sup>

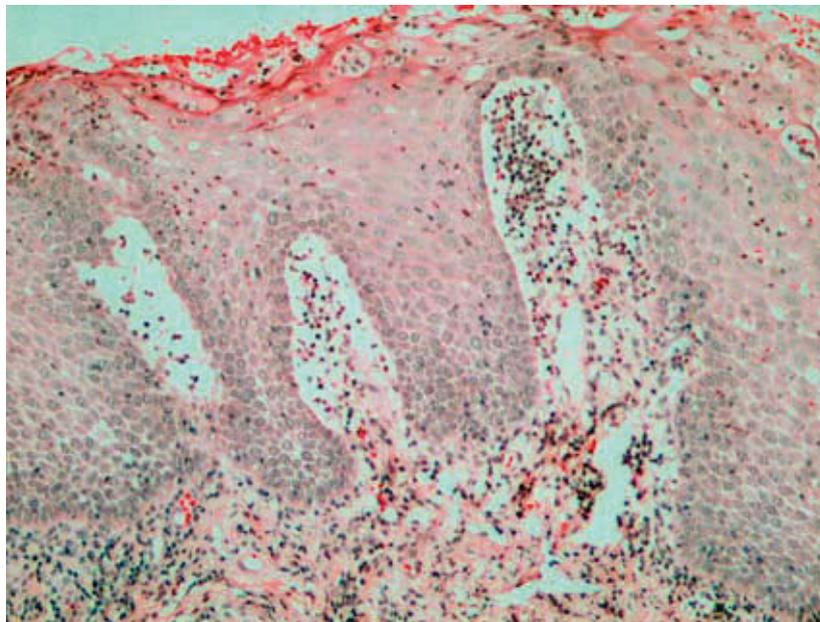
The disease presents clinically as annular or circinate plaques with an erythematous center and a raised whitish border that grows centrifugally daily<sup>2</sup> (Figure 1). It has been reported in practically all areas of the oral cavity, although the mucosa of the lips is the most common site.<sup>4</sup> It affects patients of all ages and is seen predominantly in males (2.6:1), with a higher ratio than that of GT.<sup>4</sup> Most cases are associated with GT, although other cases have been reported with no involvement of the tongue.<sup>4</sup> Up to 41% of cases are also associated with a fissured tongue.<sup>4</sup> The condition is usually asymptomatic, although mild symptoms are not uncommon, particularly on eating hot or very spicy food.<sup>2,4</sup>

Histopathology findings are identical to those of GT and are very similar to those of psoriasis. The findings include acanthosis of the mucosa with elongated rete ridges and suprapapillary thinning, with neutrophil exocytosis and formation of microabscesses.<sup>1,2</sup> Cultures are negative despite the constant presence of neutrophils.

As with GT, no effective treatment exists. Dermatologists should be aware of this trivial disorder, which may be confused with other diseases such as lichen planus,



**Figure 1** Case 1. Erythematous circinate plaque with a raised whitish border, located on the mucosa of the lower lip. The lesions can be seen to migrate on 4 consecutive days. A, Day 1. B, Day 2 C, Day 3. D, Day 4.



**Figure 2** Case 1. Acanthosis with suprapapillary thinning accompanied by pronounced adventitial edema and spongiosis. An inflammatory infiltrate is also observed, which consists almost exclusively of neutrophils presenting marked exocytosis and accumulating to form microabscesses in the superficial layers of the mucosa (hematoxylin-eosin,  $\times 200$ ).

pemphigus vulgaris, and lupus, in order to avoid performing unnecessary tests.

## References

1. Hoexter DL. Erythema circinata migrans - ectopic geographic tongue. NY State Dent J. 1980;46:350-2.
2. Espelid M, Bang G, Johansen AC, Leira JI, Christensen O. Geographic stomatitis: report of 6 cases. J Oral Pathol Med. 1991;20:425-8.
3. Zargari O. The prevalence and significance of fissured tongue and geographical tongue in psoriatic patients. Clin Exp Dermatol. 2006;31:192-5.
4. Brooks JK, Balciunas BA. Geographic stomatitis: review of the literature and report of five cases. JADA. 1987;115:421-4.

5. Rood JP. An unusual presentation of erythema migrans. *J Dent.* 1974;2:207-8.
6. Lucas VS, Challacombe SJ, Morgan PR. Erythema migrans: an unusual presentation. *Br Dent J.* 1993;175:258-9.
7. Flaitz CM. Ectopic erythema migrans in an adolescent with a skin disorder. *Ped Dent.* 2000;22:63-4.

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## Urticaria and Mastocytosis: As Common as we Think?

### Urticaria y mastocitosis: ¿tan frecuente como pensamos?

To the Editor:

In daily practice and in the classical text books of dermatology, urticaria is considered to be a common manifestation of mastocytosis; along the same lines, mastocytosis is considered a cause of both acute and chronic urticaria.<sup>1-5</sup> Nevertheless, a literature review reveals no data to support any such association.

A comprehensive review carried out using Pubmed and the Spanish Medical Index (IME, *Índice Médico Español*) (keywords: mastocytosis, telangiectasia macularis eruptiva perstans, urticaria, Darier, dermatographism) yielded no data on the relative risk of urticaria in patients with cutaneous mastocytosis and few data on patients with acute or chronic urticaria caused by an underlying mastocytosis.

The only paper to directly mention an association between the 2 conditions was published by Martín-Muñoz,<sup>6</sup> who reported the case of a 5-year-old boy with a 1-year history of chronic urticaria. A skin biopsy revealed mastocytosis of the urticaria pigmentosa type. All other tests (tryptase and histamine) were normal, except for a positive skin prick test for olive pollen.

It is believed that testing for Darier sign could trigger urticaria-like symptoms and possibly even anaphylactic shock in patients with mastocytosis. However, a retrospective study on the causes of anaphylaxis in 601 patients found no patients with a history of mastocytosis.<sup>7</sup>

Darier sign is considered a dermatographism typical of mastocytosis, and the 2 conditions have a common pathogenesis consisting of mechanical activation of the inflammatory cascade that triggers the appearance of wheals<sup>8</sup>; this may confirm the relationship between urticaria and mastocytosis.

We present the case of a 42-year-old man who consulted for the appearance of wheals in exposed areas (particularly, on the face and hands) when he was outdoors in cold weather, when he touched cold containers, or when he was exposed to hot or cold water. The patient also reported pharyngeal itching whenever he drank cold beverages (whether water or another type of refreshment). Physical examination revealed telangiectasias on the upper thorax and back, as well as the shoulders (Figure 1). Challenge tests with an ice cube (Figure 2) and with cold water (Figure 3) were positive, with the formation of wheals, whereas tests with hot water, heat, and light were negative, as were the exercise test, dermatographism test, and Darier sign. A biopsy of the trunk lesions showed slight superficial vascular dilatations in the skin, associated with groups of 7 or 8 mast cells around the vessels, consistent with telangiectasia macularis eruptiva perstans. All tests to determine possible systemic involvement (serum tryptase,



Figure 1 Telangiectasias on healthy skin at the neckline.



Figure 2 Wheal-like plaque on the right arm after applying an ice cube.