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Geographic Tongue

KEYWORDS: Benign migratory glossitis; Geographic tongue

To the Editor:

A 45-year-old female patient presented to our clinic with a painless, erythematous lesion on her tongue. Medical history was negative, with absence of any allergies or habits. The patient recalled that she had a similar lesion on her tongue 6 months earlier, which resolved spontaneously. Clinical examination of the dorsal surface of the tongue revealed multiple erythematous patches with annular, well-demarcated white borders (**Figure**, black arrows). A hemoglobin level of 13 g/dL (normal range, 12-15 g/dL) and total red blood cell count of 4.8×10^6 cells/μL eliminated anemia. Negative periodic acid Schiff stain performed by taking a smear sample from the tongue eliminated candidial fungal infection. Taking into consideration the history, laboratory findings, and the typical waxing and waning pattern of the lesion, the diagnosis arrived at was geographic tongue. The lesion regressed spontaneously after 1 month. We advised the patient to maintain oral hygiene with regular follow-up visits. Evaluation after 6 months revealed no recurrence of the lesion.

Geographic tongue is also known as benign migratory glossitis owing to the ability of the lesion to migrate over time from one location to another. It is a benign condition commonly seen on the tip, lateral borders, and dorsum of the tongue.[1] Geographic tongue has a prevalence rate of 3% in the United States.[2] The etiology of geographic tongue is not well understood. Clinically it is characterized by a central erythematous zone consisting of atrophy of the filiform papillae, whereas the white zone shows regenerating filiform papillae along with keratin. Histologically there is epithelial degeneration in the erythematous zone and elongated rete pegs with hyperkeratosis in the white zone. The connective tissue shows infiltration of polymorphonuclear leukocytes and lymphocytes.[3] Most cases of geographic tongue are self-healing. The differential diagnosis of geographic tongue includes leukoplakia, lichen planus, and candidiasis. Leukoplakia is caused by chronic irritation from rough teeth, improper fillings, tobacco use, smoking, or human immunodeficiency virus–associated oral hairy leukoplakia. A biopsy is taken of the lesion and the uninvolved mucosa to rule out cancer. Removal of the etiologic factor results in regression of the leukoplakia in a few weeks to a month. Geographic tongue may have variable appearances and symptoms that need to be differentiated from other lesions of the tongue.

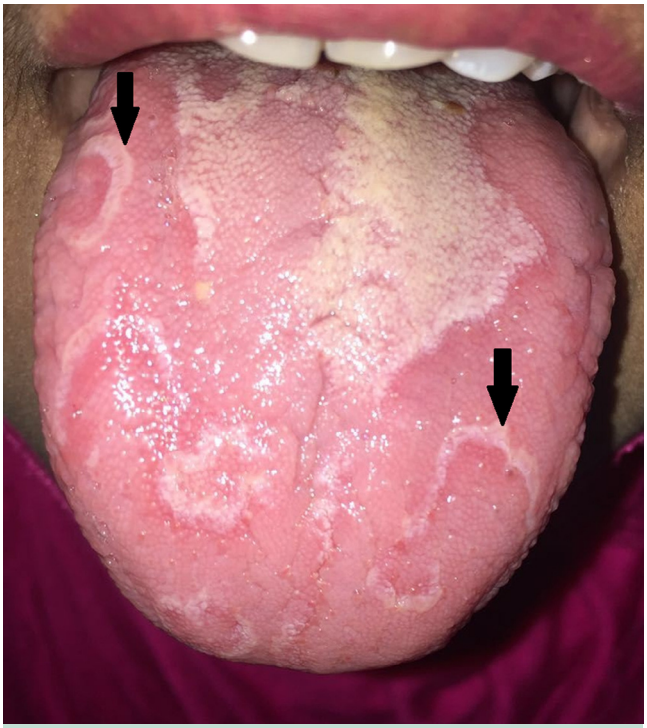

Figure Dorsum of tongue showing erythematous patches with white borders (black arrows).

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