

IMAGES IN EMERGENCY MEDICINE

Nontrauma and Medical

A tongue with a map on it

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The patient provided written informed consent for publication of this clinical image.

1 | PATIENT PRESENTATION

A 27-year-old female with no medical history except being 27 weeks pregnant presented due to sore throat to find out if she needed antibiotics. On examination, the remarkable appearance of her tongue, consisting of several serpentine white lesions with raised borders encircling areas of central erythema, was noted (Figure 1). She explained her obstetrician prescribed her an antifungal but it did not result in any improvement. Although the tongue itself did not bother her, she wanted to know if it could harm her baby. We explained she had geographic tongue, a benign condition that did not require treatment. Her strep test was negative and she was discharged home with reassurance.

2 | DIAGNOSIS

Benign migratory glossitis (aka geographic tongue).

3 | DISCUSSION

Benign migratory glossitis, also known as geographic tongue,¹ is a chronic inflammatory condition for which there is no specific treatment. It is characterized by epithelial atrophy of the filiform papillae² and frequently seen in association with psoriasis.^{3,4} It typically begins in childhood⁵ and has a prevalence of 2% in the US population.⁶

A severity index, the geographic tongue area and severity index (GTASI), has recently been proposed, consisting of the presence of erythema, white halo, or fissuring of the tongue on four distinct areas,



FIGURE 1 Clinical photograph of the patient's tongue depicting serpentine white lesions with raised borders encircling areas of central erythema that look like a map

namely the apex, borders, ventral, and dorsum of the tongue. Erythema and white halo are scored from 0 to 4 and tongue fissuring is scored from 0 to 1. Our patient's presentation would fall into the severe category.⁷

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Clinically, it is characterized by disappearing and reappearing lesions all across the tongue with mild or no symptoms. When symptomatic, mild discomfort is noted in some patients in the form of burning, pain, or tingling of the lesions.⁸ Our patient, of note, had a burning sensation in her throat.

Studies suggest several risk factors, including anxiety, stress, family history, asthma, eczema, hay fever, allergic rhinitis, and patients with higher levels of immunoglobulin E.⁵ Geographic tongue has also been noted in patients diagnosed with COVID-19.⁹

So far neither a firm etiology nor treatment has been established. Nonetheless, the appearance does cause great concern to patients, so it is important to reassure them of its benign nature.

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