PHOTO ASSAY

Images in Clinical Medicine: Geographic Tongue

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Abstract

Geographic tongue is usually self-resolving and relatively a benign condition. Sometimes, these lesions in the tongue can move from one location to another in the tongue hence this condition is also called benign migratory glossitis. Although the etiology is idiopathic, it can often be associated with increased environmental allergies. At times it may resemble oral cancer. Thorough clinical examination and investigations are needed if there is any sudden increase in the size of erythematous plaques or if there is pain with supra-added systemic features suggestive of any malignancy. We herein present a case of geographic tongue in a 57-year-old gentleman which was diagnosed as benign. It was conservatively managed and self-resolving in nature.

Keywords: Benign, Geographic tongue, Glossitis.

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Case Summary

A 57-year-old male patient presented with a chief complaint of a burning sensation in the tongue for the last 4 months, which was mild in intensity and aggravated by spicy food. The patient had no prior history before this. There were no other symptoms and the patient had no history of any fever or rashes. The patient was neither diabetic nor hypertensive and was not on any regular medication. On examination of the oral cavity, a group of erythematous patches was seen on the dorsum of the tongue having a well-defined slightly raised border.[1] A smear sample was taken from the dorsum of the tongue and a negative Periodic acid–Schiff stain ruled out the possibility of a candida infection. A complete blood count was done and it ruled out the possibility of anemia. Serum ferritin and vitamin B12 levels were normal. Mean corpuscular volume and mean corpuscular hemoglobin were normal as well. Fasting blood sugar level was also within normal limits. An oral brush biopsy was done to rule out the possibility of oral cancers, leukoplakia, and erythroplakia.[2] Histologically, there was epithelial degeneration in the erythematous zone and elongated rete ridges. A diagnosis of the geographic tongue was made and the patient was informed about the self-resolving, relatively benign nature of the condition and that it is not associated with any underlying condition (Fig. 1). The patient was advised to maintain good oral hygiene, given some multivitamins and asked to follow-up after 3 months.

Discussion

Sometimes, these lesions can move from one location to another in the tongue, so this condition is also called benign migratory glossitis. The etiology is not clear, but it is associated with increased environmental allergies.[3] The differential diagnosis of geographic tongue includes the following: leukoplakia, oral lichen planus, candidiasis, glossitis, erythroplakia, contact stomatitis, squamous cell carcinoma, aphthous ulcer tobacco use, and can be seen in association with chronic inflammatory bowel disease, celiac disease, diabetes mellitus, HIV, and lupus erythematosus.[4] Some syndromes associated with the condition are Reiter's syndrome, Aarskog syndrome, fetal hydantoin syndrome, and Robinow syndrome. There were no signs of any lacy white pattern (Wickham's striae) ruling out the possibility of oral lichen planus. There was no alteration in the bowel habits of the patient, no history of abdominal pain, and no reaction to a gluten diet in the past ruling out any associated

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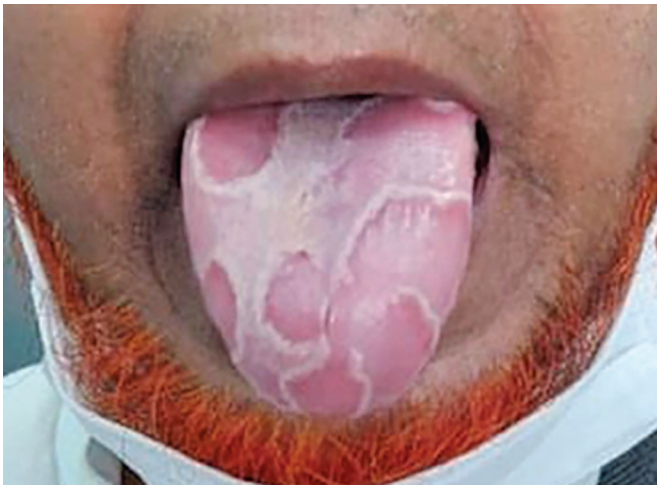

Fig. 1: Clinical image of a 57-year-old male patient diagnosed with a geographic tongue

inflammatory bowel disease and celiac disease. The fecal occult blood test too was negative. A negative antinuclear antibody test, double-stranded DNA test, and normal urinalysis ruled out the possibility of systemic lupus erythematosus. Viral serology was also done and was nonreactive for HIV-1 and 2, HbsAg, and anti-Hepatitis C virus. The condition is self-limiting, usually requires only reassurance to the patient and advice to avoid triggering factors like alcohol, spicy food, and citrus fruits. The condition is usually asymptomatic, has a good prognosis, and usually does not have any complications. Geographic tongue can, however, at times resemble oral cancer. A thorough examination and investigations are needed if there is any sudden increase in the size of erythematous plaques or if there is pain.

Informed Consent

Complete informed consent duly obtained from patient.

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