

# Benign Migratory Glossitis With Scrotal Tongue

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## Abstract

Benign migratory glossitis (BMG), also known as geographic tongue, consists of migrating, painless white lesions of different sizes on the dorsum of the tongue. These areas are devoid of papillae. BMG may occur in a sole manner or in combination with scrotal tongue. In case of scrotal tongue, also known as fissured tongue, food particles may get accumulated in the deep fissures resulting in irritation of the tongue. This scientific article is a case report regarding a 20-year-old man who presented with a combination of BMG and scrotal tongue.

**Keywords:** Benign migratory glossitis, desquamation, migratory, scrotal tongue

## INTRODUCTION

Various synonyms such as wandering rash, erythema migrans, geographic tongue, and annulus migrans refer to benign migratory glossitis (BMG). Clinically, this benign condition, reported by Rayer in 1831,<sup>[1]</sup> is characterized by irregular, multiple, circinate, white, erythematous, interspersed patches on the dorsum of the tongue, even on the lateral borders, with elevated keratotic bands. The nonulcerated areas may mimic ulcerated regions because of the absence of papillae and keratin. Regenerated filiform papillae, keratin, and neutrophils are observed in the white patches, whereas the erythematous patch region constitutes of epithelial thinning and absence of filiform papillae. The migratory appearance is because of the desquamation of the epithelium at one place and proliferation at a different place. Dorsum and lateral aspects of the tongue usually present with the deep fissures and grooves. In this scientific article, we present a case report of a 20-year-old man, who had a combination of BMG and scrotal tongue.

## CASE REPORT

A 20-year-old man attended the Department of Dentistry and Faciomaxillary surgery with a complaint of irritation and burning sensation in the tongue. This discomfort usually increased while consuming spicy and hot foods. His medical, personal, familial, and dental history was insignificant. The patient was conscious, oriented, and afebrile, and all vitals were stable. Mouth opening

was of three-finger breadth, occlusion was stable, and lateral temporomandibular joint movements were satisfactory. Clinical examination revealed multiple irregular white patches interspersed with erythematous areas devoid of papillae.

However, in the tongue, numerous deep fissures were seen on the lateral aspect of the tongue and large deep fissures on the dorsal aspect of the tongue [Figures 1–3]. Medical management was preferred, which consisted of topical triamcinolone application followed by antioxidant medication for a week. On review, the lesions subsided [Figure 4]; hence, the patient was recalled once in 30 days for the next 6 months. The tongue brush was helpful in the cleaning of multiple, deep and large fissures, which resulted in decreased irritation and burning sensation of the tongue.

## DISCUSSION

BMG is commonly found in dorsum, lateral borders and ventral surface of tongue with a prevalence rate between 1% and 2.5%.<sup>[2,3]</sup> BMG usually occurs in combination with conditions such as chronic granulomatous disease, fissured tongue and psoriasis.<sup>[4,5]</sup> Unknown causes, allergic rhinitis, asthma, human leukocyte antigens (HLA-DR5, HLADRW6, and HLA-CW6), congenital condition, atopy, inflammation, and polygenic mode are postulated causes.<sup>[3,6-10]</sup> Usually the

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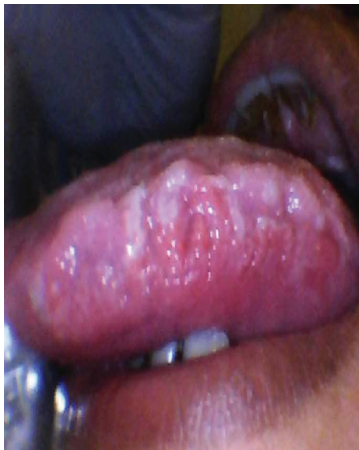
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**Figure 1:** Intraoral clinical view of dorsum of tongue

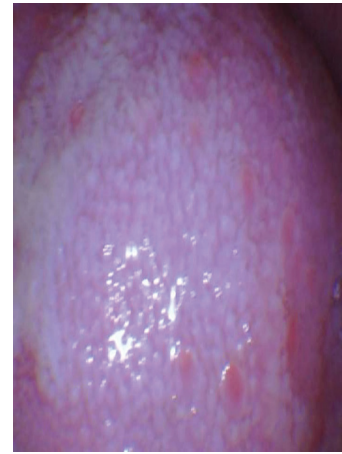


**Figure 2:** Intraoral clinical view of right lateral border of tongue



**Figure 3:** Intraoral clinical view of left lateral border of tongue

condition is asymptomatic, unless and until, the debris accumulation within the fissures reaches a threshold limit. Differential diagnosis includes malignancy, systemic lupus erythematosus, chemical burns, atrophic lichen planus, drug-induced reactions, neutropenia, atrophic candidiasis, psoriasis, and local trauma. In our case, the condition subsided with intraoral application of triamcinolone followed by antioxidant



**Figure 4:** Intraoral clinical view of healed dorsum of tongue

medication. In case of the scrotal tongue, the deep fissures were cleaned with the help of a tongue brush so that good oral hygiene is maintained, and thereby decreasing the accumulation of food particles. The patient was advised to apply the topical steroid three times a day 1 h after food intake, and thereby allowing strictly an hour for the retention of the medication in the affected areas. Oral hygiene measures included twice-daily toothbrushing with soft bristles, twice-daily usage of chlorhexidine mouthwash in a diluted manner, avoidance of hot, spicy, and hard foods, maintaining good oral hygiene, and continuing the medication. The patient was reviewed weekly, monthly, and up to 6 months.

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### Conflicts of interest

There are no conflicts of interest.

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