



DESQUAMATIVE GLOSSITIS

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Introduction

Desquamative glossitis is a chronic, recurrent and benign inflammatory disorder of the tongue, most often referred to as geographic tongue or benign migratory glossitis. The term “geographic” reflects the visual appearance of the lesions: smooth red areas with irregular white or yellowish borders resemble a map. These lesions may disappear in one area and reappear in another, which explains the word “migratory” in the alternative clinical name. StatPearls describes geographic tongue as a benign chronic relapsing inflammatory condition of unknown etiology, usually presenting as erythematous migratory circinate patches that create a map-like pattern [1].

Materials and methods

Desquamative glossitis usually affects the dorsal and lateral aspects of the tongue. The main clinical sign is the loss of filiform papillae, which creates smooth, erythematous areas surrounded by slightly elevated whitish borders. These borders may change shape within days or weeks. The surface of the tongue may therefore look different from one examination to another. Assimakopoulos and colleagues characterize benign migratory glossitis as a benign, chronic and recurrent disease that may resemble pustular psoriasis histopathologically [2]. The repeated disappearance and reappearance of lesions is one of the key features that separates desquamative glossitis from more stable lesions of the oral mucosa.

In many cases, patients do not report pain. The condition may be discovered accidentally during dental examination. However, symptomatic cases are also possible. Patients may complain of burning sensation, tenderness, discomfort while eating, sensitivity to hot, spicy or sour foods, altered taste or irritation during oral hygiene. StatPearls lists pain, burning sensation, stomatodynia, dysgeusia and sensitivity to hot, spicy and sour foods among possible symptoms [1]. Symptom intensity can vary: some patients experience only mild discomfort, while others report recurrent burning that affects diet and quality of life.

Results and discussion

The prevalence of desquamative glossitis is difficult to define precisely because studies differ in population, age, diagnostic criteria and examination methods. StatPearls reports an overall global prevalence of approximately 1% to 2.5%, with a pediatric range from 0.37% to 14.3% and a slight female predilection [1]. DermNet gives a similar general estimate, noting that geographic tongue affects approximately 1–3% of adults worldwide and may be more common in women than in men. These figures show that the disorder is not rare in oral medicine practice, even if many patients never seek treatment because symptoms are absent.

The exact cause of desquamative glossitis remains unknown. Several factors have been proposed, but no single etiological mechanism has been proven. Familial tendency has been reported, suggesting a possible hereditary component. Stress and psychosomatic factors have

also been discussed because some patients notice exacerbations during emotional tension. Atopic conditions such as asthma, eczema, allergic rhinitis and food allergies have been associated with geographic tongue in some studies. StatPearls also notes possible associations with psoriasis, hormonal factors, diabetes mellitus, nutritional deficiencies and other systemic conditions, while emphasizing that the pathogenesis remains uncertain [1].

The relationship between desquamative glossitis and psoriasis has attracted special attention. Some researchers interpret geographic tongue as an oral manifestation of psoriasis because of clinical, histological and immunological similarities. Others consider the association inconsistent and insufficient for a direct causal conclusion. Picciani and colleagues analyzed the clinical and histopathological correlation between geographic tongue and psoriasis and treated this relationship as an important but still debatable area of oral medicine [6]. For practical purposes, clinicians should ask about dermatological history when lesions are persistent or when the patient has known psoriasis, but geographic tongue should not automatically be treated as psoriasis in every case.

Nutritional and metabolic factors may also influence the condition in selected patients. Deficiencies of vitamin B complex, iron, folic acid or zinc have been proposed in the literature, although such links are not universal. If the patient has persistent burning, fatigue, pallor, recurrent oral ulcers or signs of systemic disease, laboratory evaluation may be appropriate. However, routine broad testing is not necessary in every typical asymptomatic case. The clinician must avoid two extremes: ignoring significant associated conditions on the one hand, and over-medicalizing a benign and self-limited lesion on the other.

Histopathological examination is not usually needed, but it can be informative in atypical or diagnostically uncertain cases. The white peripheral zone may show epithelial changes, parakeratosis and inflammatory infiltration, while the erythematous area reflects loss of filiform papillae. StatPearls describes neutrophilic microabscess formation, epithelial acanthosis, parakeratosis, glycogen deposits and inflammatory infiltrates as possible microscopic features [1]. These findings partly explain why the condition is sometimes compared with psoriasiform inflammatory disorders. Nevertheless, the clinical pattern remains more important than microscopic description in routine diagnosis.

Differential diagnosis is a central part of clinical evaluation. Desquamative glossitis must be distinguished from oral candidiasis, lichen planus, leukoplakia, erythroplakia, traumatic ulceration, chemical irritation, aphthous lesions and, rarely, oral malignancy. The migratory character, sharply demarcated red patches and whitish serpiginous margins strongly support geographic tongue. In contrast, leukoplakia is usually a fixed white lesion; candidiasis may be removable or associated with immunosuppression and burning; lichen planus often has reticular white striae; erythroplakia is more concerning because of malignant potential. Any lesion that is fixed, indurated, ulcerated, bleeding, progressively enlarging or present without typical migration requires careful examination and possible specialist referral.

Conclusion

Desquamative glossitis is a benign inflammatory condition of the oral mucosa, usually known as geographic tongue or benign migratory glossitis. Its main clinical features are erythematous depapillated patches, irregular whitish borders and migration of lesions over time. The disorder is commonly asymptomatic, but some patients develop burning, irritation, food sensitivity or psychological concern. Its etiology remains uncertain; hereditary factors,

stress, atopy, psoriasis, nutritional deficiencies and systemic associations have been discussed, but none fully explains all cases.

The main diagnostic principle is careful clinical recognition. Typical migratory lesions usually do not require biopsy or complex testing. Nevertheless, differential diagnosis is essential because some oral mucosal lesions may imitate geographic tongue and require different management. Treatment is unnecessary in most asymptomatic cases. Symptomatic management should focus on reassurance, avoidance of irritants, oral hygiene and selected topical therapy when needed. Current evidence does not support one universally accepted curative treatment.

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