

## Migratory Glossitis Associated with Cleft Tongue: Case Report

### Glossite Migratória Associada a Língua Fissurada: Relato de Caso

Samira Vilela Prado Mascarenhas<sup>a</sup>; Vanessa de Sousa<sup>ab</sup>; Andrei Rosa<sup>c</sup>; Rodrigo Lacerda de Barros<sup>b</sup>;  
Luiz Evaristo Ricci Volpato<sup>\*c</sup>

<sup>a</sup>Centro Universitário do Vale do Araguaia. MT, Brazil.

<sup>b</sup>Universidade de Cuiabá. MT, Brazil,

<sup>c</sup>Universidade de Cuiabá, Post-Graduate Program in Integrated Dental Sciences. MT, Brazil.

\*E-mail: [odontologiavolpato@uol.com.br](mailto:odontologiavolpato@uol.com.br)

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#### Abstract

Benign migratory glossitis, also known as geographic tongue, is characterized by the tongue inflammation and is associated with pain and difficulty eating due to the lingual papillae atrophy. It may appear in association with the fissured tongue. This paper reports the case of a 47-year-old male patient who sought dental care with the main complaint of burning, discomfort, increased sensitivity and a burning sensation on the tongue. He was diagnosed with migratory glossitis associated with a fissured tongue. The patient treatment was performed with an ointment based on triamcinolone acetonide (Omcilon- A Orabase®), which showed improvement in the clinical signs after seven days. The therapy used in this patient was effective in restoring the tongue papillae and improving signs and symptoms.

**Keywords:** Glossitis, Benign Migratory. Tongue, Fissured. Oral Medicine

#### Resumo

*A glossite migratória benigna, também conhecida como língua geográfica, caracteriza-se por inflamação da língua e está associada a dor e dificuldade na alimentação devido a atrofia das papilas linguais. Pode aparecer em associação à língua fissurada. Este trabalho relata o caso de um paciente do sexo masculino com idade de 47 anos que buscou atendimento odontológico com queixa principal de ardência, desconforto, sensibilidade aumentada e sensação de queimação na língua. Foi diagnosticado com glossite migratória associada a língua fissurada. O tratamento do paciente foi realizado com pomada à base de triancinolona acetônida (Omcilon- A Orabase®) demonstrou melhora no quadro clínico após sete dias. A terapêutica usada neste paciente foi eficaz no restabelecimento das papilas da língua e melhora dos sinais e sintomas.*

**Palavras-chave:** Glossite Migratória Benigna. Língua Fissurada. Medicina Bucal.

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#### 1 Introduction

Fissured tongue is a clinical condition characterized by the presence of numerous small grooves or cracks on the tongue surface, usually disseminated from a medial central groove, although it can present varied patterns<sup>1,2</sup>. The grooves commonly appear in the two previous thirds of the tongue and may be relatively superficial or deep<sup>3</sup>.

Benign migratory glossitis or geographical tongue is a chronic, inflammatory and immune-mediated lesion of unknown etiology. It is characterized by serpiginous white areas around the atrophic mucosa with alternation among activity, remission and reactivation in several tongue sites<sup>4-6</sup>. It affects one to 3% of adults, but it can occur at any age and in both genders<sup>7</sup>.

The article reports the case of a patient who presented both clinical conditions, fissured tongue and geographic tongue, with acute symptomatic manifestation and treatment.

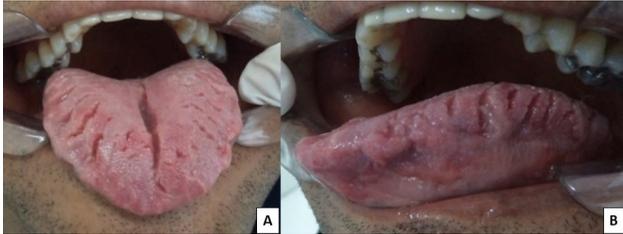
#### 2 Case Report

A 47-year-old male patient, leukoderma, attended the Integrated Dental Clinic of Centro Universitário do Vale do

Araguaia (Univar, Barra do Garças, MT, Brazil), reporting pain, discomfort, increased sensitivity and burning sensation on the tongue, especially when he ate some specific foods such as citrus fruits. During the anamnesis, the patient reported a hectic life, consumption of hot and spicy foods and that there are reports from members of his family of this kind of change on the tongue as well.

In the extra-oral examination, the patient did not present any alterations worthy of note. In the intrabuccal examination, he presented normal periodontal conditions and good oral hygiene, stating that he had recently undergone dental treatment on his tongue, areas of multifocal superficial erosion, irregular and well demarcated, lateral dorsum delimitation at the tongue apex were observed, with yellowish white edges and deep cracks at the dorsal region of the tongue. Considering the clinical and historical aspect, the diagnostic hypothesis of fissured tongue associated with geographic tongue was established.

**Figure 1** - Initial clinical aspect of the patient's tongue showing: (A) on the dorsum of the tongue areas of irregular and well demarcated multifocal surface erosion; (B) on the lateral edge and ventral face of the tongue, white-yellowish edges and deep cracks



Source: The authors.

As symptomatic treatment, ointment based on acetonide triamcinolone (Omcnon-AOrdatabase® - Aspen Pharma Industry Pharmaceutical Ltda.; Rio de Janeiro, RJ, Brazil) was prescribed, which has anti-inflammatory, anti-pruriginous and anti-allergic action, three times a day for seven days and as support tongue sanitization, tooth brush and tongue scraper were used, instructing that cleaning begins at the back part of the tongue and goes toward the tip of the tongue using the tongue scraper and after that the tooth brush.

The patient returned after seven days reported improvement of symptoms. Clinically, there was a decrease in the depth of the central fissure of the tongue dorsum, and there was still no absence of the characteristic depapillation of the geographic tongue (Figure 2). Thus, it was opted for the discontinuation of the treatment and only proservation.

**Figure 2** - Appearance of the patient's tongue after 7 days, with reduced depth of the central and lateral fissure of the tongue dorsum and absence of depapillations



Source: Own authorship.

## 2.1 Discussion

In the clinical case presented, the patient presented areas of depapillation on the tongue, with a smooth appearance and well-delimited borders. This aspect is quite characteristic of the geographical tongue, in which altered papillae are present due to papillary atrophy, which is clinically evident<sup>2</sup>.

Although the etiology of the geographic tongue is unknown, numerous causes were related to its occurrence, such as genetic factors, heredity, psoriasis, emotional stress

and ingestion of acid, hot or spicy food<sup>6,8,9</sup>. Additionally, nutritional factors and Down's syndrome were also associated with the geographic tongue<sup>10</sup>. However, the incidence of geographic tongue is low among pediatric patients, and its occurrence in this population is rare<sup>11</sup>. Emotional stress, heredity and consumption of acid and spicy foods were reported by the patient in this case.

A strong association between fissured tongue and geographic tongue has been reported<sup>12</sup>, as in the present case. Fissured tongue pathogenesis and etiology remain obscure and controversial<sup>1,13</sup>. It has been associated with nutritional deficiencies, systemic diseases and syndromes<sup>14,15</sup> and also psoriasis, suggesting also genetic etiology<sup>8</sup>. A higher prevalence of fissured tongue was also described among young non-smoker women and allergic individuals<sup>16</sup>, differently from the case presented.

Considerable variation is seen in the presentation of the grooves, which vary from localized fissures, mainly in the dorsolateral area of the tongue. Some variations of fissured tongue were reported in the presentation of grooves or fissures. The grooves are usually located in the dorsolateral area of the tongue. In addition, a central fissure is frequent with several branches of fissures at right angles from the center fissure. In severe form, numerous fissures cover the entire dorsal surface, dividing the tongue papillae into several separate "islands" or lobes, which are correlated<sup>17</sup>. In the case reported in this study, the patient presented fissures in the dorsolateral and also central part.

Patients with fissured tongue may present unpleasant symptoms such as burning, inflammation and halitosis<sup>3,13</sup>. The burning sensation on the tongue may be related to systemic, local factors and lack of oral hygiene. Systemic factors include medication, anemia, esophageal reflux, vitamin B, zinc, iron deficiency and psychological factors<sup>18</sup>. Local factors are inadequate prosthesis, infection, parafunctional habits, allergic reaction, xerostomia and galvanism<sup>19</sup>. Whereas geographic tongue is usually asymptomatic, but it may involve pain or perception of burning caused by acid and spicy foods<sup>20,21</sup>. Palate dysfunction and absence of definitive cure, with a recurrence character are also commonly detected during clinical examination<sup>22</sup>, as was also reported by the patient.

Although in many cases the geographic tongue condition resolves spontaneously, symptomatic cases with active lesions need treatment to relieve the lesions, using mouth rising with sodium bicarbonate diluted in water and/or topical steroids<sup>16</sup>. It is also valid to avoid acid and spicy foods and alcohol consumption<sup>23</sup>. As the reported case was symptomatic, it was treated with ointment based on acetonide triamcinolone and hygiene of the tongue to avoid associated infections achieving satisfactory results. NAJAF *et al.*<sup>22</sup> compared the isolated use of triamcinolone acetonide in comparison to its use in association with 0.05% retinoic acid in patients with clinical

symptomatology, and did not obtain distinct results, that is, the addition of retinoic acid did not improve the efficacy in resolving the symptoms.

### 3 Conclusion

Geographic tongue and fissured tongue are independent conditions, and the clinical similarities of which may make their diagnosis difficult, the simultaneous occurrence of conditions may also occur, as in the case presented. In this case, the patient presented painful symptoms associated with conditions that were reduced with the adopted therapy.

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