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Case Report/Kazuistyka

Atrophic glossitis as a clinical signs of severe anemia – Report of two cases

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ABSTRACT

Atrophic glossitis is a clinical condition observed in tongue. It presents with considerable loss of taste buds under a red or pink background. Atrophic glossitis occurs by atrophy of the filiform and fungiform papillae of the tongue. In general, atrophic glossitis is caused by nutritional deficiency. This condition mainly affects elderly and debilitated patients. Patients may experience symptoms such as pain or burning at the site. The purpose of this article is to describe two cases of atrophic glossitis. The first case was associated with immunosuppression due to HIV and the second one due to malignancy. Atrophic glossitis is a benign condition and your knowledge is of great importance because it is often an early sign of some systemic disease. The clinician should be aware of the clinical signs for the diagnosis to be confirmed by some laboratory tests. Treatment consists of nutritional deficit and repair intervention on the underlying disease.

Introduction

Some changes in tongue may be manifestations of systemic diseases, nutritional deficiencies and initial signs of severe illness (e.g. carcinomas) [1]. Atrophic glossitis, also known as smooth tongue or atrophic papillae, always occurs when there is a loss of 50% of fungiform and filiform papillae on the dorsum of the tongue [2]. It affects mainly the tongue, but can be present on the edges. Atrophic glossitis is an inflammatory disorder, which gives a smooth appearance with reddish background, and there may be pain and burning [3].

Atrophic glossitis is a classic sign of nutritional deficiencies related to lack of vitamin B12, iron, folic acid, riboflavin and niacin [1, 2]. Other causes of atrophic glossitis include systemic infections such as syphilis and local infections like oral candidiasis 1. This condition can also manifest in patients with celiac disease, AIDS, diabetes, heart failure, amylodoises, chemical irritation, drug reaction, permissive anemia and Sjögren's syndrome, with high prevalence in patients hospitalized [4–6].

There are few cases of atrophic glossitis described in the literature. Thus, this issue becomes relevant due to its high prevalence in debilitated patients. The objective of this

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paper is to report two cases of atrophic glossitis associated with immunosuppression due to HIV and malignancy.

Case report

Case 1

A white male patient with 49-year-old was admitted to the Oswaldo Cruz Hospital (Curitiba/Paraná, Brazil) complaining of productive cough, fever, diarrhea and loss of appetite.

The patient is HIV positive and his diagnosis for this infection was done 20 years ago. He reported that he himself had discontinued treatment with antiretroviral drugs four years ago. During the anamnesis, the patient reported being a smoker (one pack of cigarettes per day for 39 years). No record of alcohol or illicit drug use was reported in their medical history.

Oral examination revealed that the patient used a denture. He had ulcers on the lips, melanin pigmentation, melanosis of the smoker and the loss of fungiform and filiform papillae on the dorsum of the tongue (Fig. 1). Despite the changes on the tongue, the patient did not report any local discomfort. According to these clinical signs, a hypothesis of atrophic glossitis associated with anemia was appointed.

Some laboratory tests were performed to assess the general health of the patient. Hemogram, blood platelet counting, fasting blood sugar, erythrocyte sedimentation rate (ESR), and AST and ALT enzymes. The following changes were observed: anemia (reticulocytes counting low, hemoglobin = 9.0 g/dL, hematocrit = 28%, MCV = 84 fL, and MCHC = 32%), leukopenia, thrombocytopenia, elevated AST and ESR.

According to these results, the diagnosis of atrophic glossitis was correlated with HIV associated anemia. The recovery of tongue papillae occurred only six weeks later when HAART was reintroduced and pneumocystosis was properly treated.

Case 2

A white female, 82 years old was admitted to the Hospital Oswaldo Cruz (Curitiba/Paraná, Brazil) complained of flank pain and abscess presenting with dark secretion.

His medical history revealed an advanced colorectal carcinoma with metastases. During anamnesis, the patient reported not being a smoker, alcoholic or a drug user.

Oral examination revealed the presence of dentures and a significant loss of fungiform and filiform papillae on the dorsum of the tongue (Fig. 2) and pallor of the mucous membranes of the mouth.

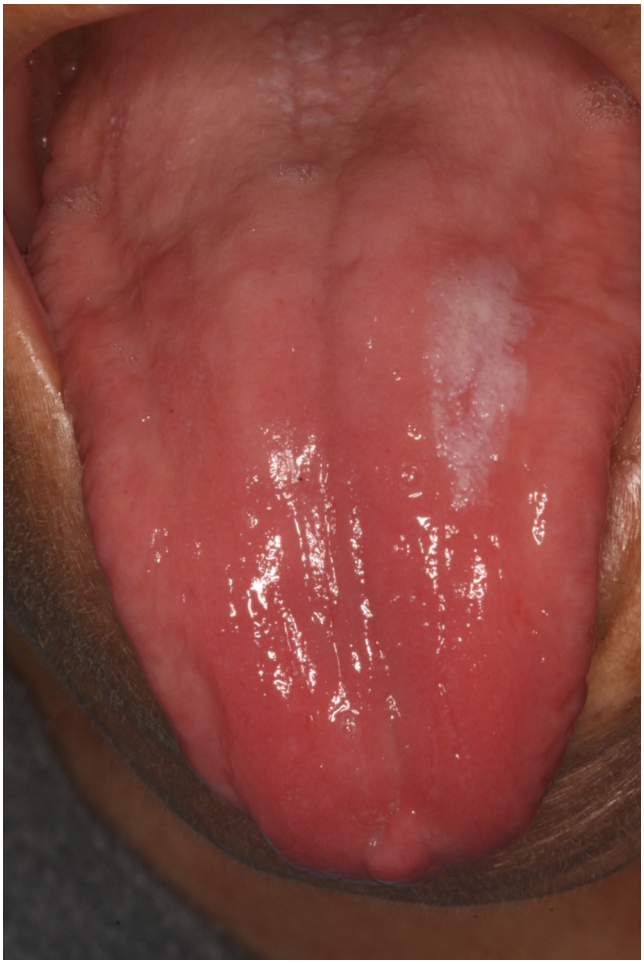

Fig. 1 – Dorsum of the tongue showing atrophy of the papillae in a patient HIV positive with severe anemia

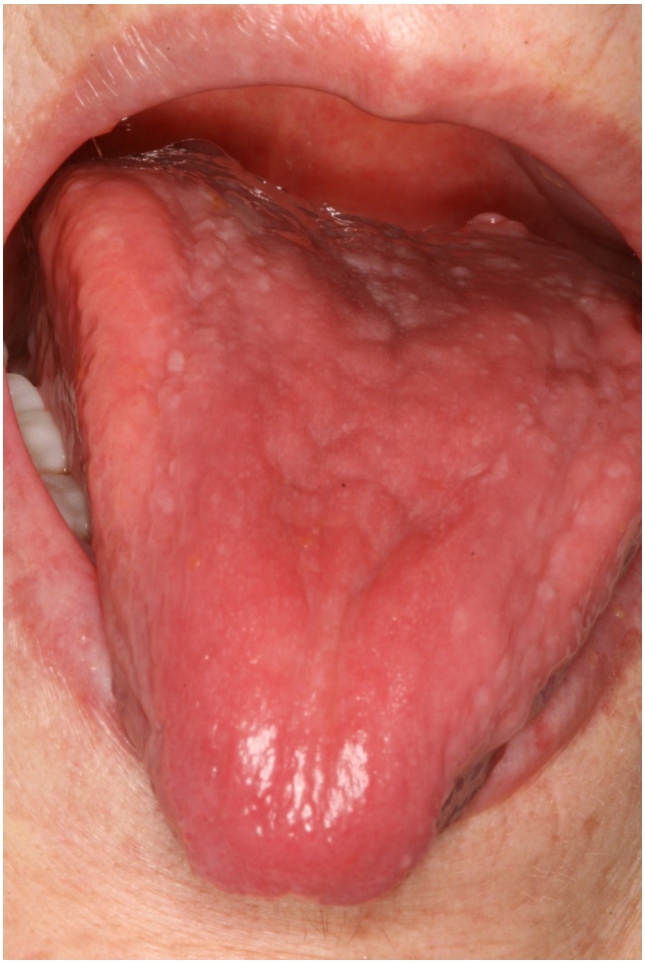

Fig. 2 – Partial loss of papillae on the dorsum of the tongue of a patient with severe anemia