

Geographic stomatitis mimicking pemphigus

Pemfigusu taklit eden coğrafik stomatit

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Abstract

Oral mucosal diseases are concerns to specialists across multiple disciplines, such as family physicians, dentists, dermatologists, and otorhinolaryngologists. Geographic stomatitis is defined as slightly raised, round, erythematous lesions that are restricted by well-defined whitish borders. The etiopathogenesis of this condition is unknown. There is a limited number of geographical stomatitis case in literature and it is thought that the real incidence is higher. Erosive lichen planus, pemphigus vulgaris, aphthous stomatitis, traumatic stomatitis, and contact dermatitis are the differential diagnosis of this condition. When lesions are found only on the tongue, the lesion is defined as geographic tongue. Herein, we present a case of geographic stomatitis, resembling pemphigus vulgaris histologically.

Key words: geographic stomatit, pemphigus

Özet

Oral mukoza hastalıkları aile hekimleri, diş hekimleri, dermatologlar, kulak burun boğaz uzmanları gibi pek çok bölümü ilgilendirmektedir. Coğrafik stomatit, hafifçe kabarık, yuvarlak, beyazımsı iyi sınırları olan eritematöz lezyonlar olarak tanımlanmaktadır. Coğrafik stomatit etiopatogenezi bilinmemektedir. Literatürde sınırlı sayıda coğrafik stomatit vakası bulunmaktadır ve gerçek insidansın daha yüksek olduğu düşünülmektedir. Eroziv liken planus, pemfigus vulgaris, aftöz stomatit, travmatik stomatit ve kontakt dermatit ayırıcı tanıdaki hastalıklardır. Lezyonlar sadece dil üzerinde bulunduğunda, coğrafik dil olarak adlandırılır. Burada, histolojik incelemesi pemfigus vulgarisi taklit eden bir coğrafik stomatit olgusu sunulmaktadır.

Anahtar kelimeler: coğrafik stomatit, pemfigus

Introduction

Oral mucosal diseases are the concerns of many departments such as family physicians, dentists, dermatologists, and otorhinolaryngologists.¹ Geographic stomatitis is defined as slightly raised, round, erythematous lesions that are restricted by well-defined whitish borders.² There is a limited number of geographical stomatitis case in literature and it is thought that the real incidence is higher.³

Erosive lichen planus, pemphigus vulgaris, aphthous stomatitis, traumatic stomatitis, and contact dermatitis are the main differential diagnosis of this condition.⁴ Geographic stomatitis is a clinically important entity due to the importance of differential diagnosis.

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Conflict of Interest: None.

In this article, we presented a case of geographic stomatitis mimicking pemphigus histologically. We wanted to draw attention to the fact that these cases could be mistakenly diagnosed with pemphigus and received unnecessary laboratory tests and treatments.

Case report

A 38-year-old female patient was referred to our dermatology outpatient clinic with a two-month history of multiple lesions on the oral mucosa. During dermatological examination, it was observed that the patient had erosive plaques that are restricted by well-defined whitish borders on the left buccal and lower lip mucosa (Fig. 1,2). No anogenital lesions were detected in the mucosal examination. The laboratory test results were unremarkable. She had hyperprolactinemia, with a follow up without medications.

Two mucosal biopsies were performed with the preliminary diagnosis of erosive lichen planus, pemphigus vulgaris, aphthous stomatitis, traumatic stomatitis, contact dermatitis on the left buccal mucosa. Histopathological examination was compatible with suprabasal acantholytic dermatosis (Fig. 3a, 3b, 3c) and direct immunofluorescence (DIF) microscopy showed epidermal interstitial IgG and C3 accumulation. The patient was

hospitalized to our inpatient clinic with the diagnosis of pemphigus vulgaris. With the purpose of the treatment, systemic prednisolone 60 mg/day, azathioprine 150 mg/day, oral care, lansoprazole, and calcium carbonate were started.

In the following 6-8 weeks, the patient did not respond well to the treatment, and new similar lesions continued to form in a mild clinical pattern. Because of the clinical course, the treatments were gradually reduced and discontinued. The patient was called for a check up after four weeks at the non-treatment stage. Two mucosal biopsies were repeated with preliminary diagnosis of pemphigus vulgaris, herpetic gingivostomatitis, aphthous stomatitis, geographic stomatitis, and linear IgA dermatosis from lower labial mucosa. Histopathological examination revealed intense inflammatory cell infiltration of eosinophils, neutrophils, and lymphocytes under epithelium with hyperkeratosis, parakeratosis, and spongiosis (Fig. 4a, 4b) and direct immunofluorescence microscopy was negative. The patient was diagnosed with geographic stomatitis due to benign course of lesions, migratuar pattern, and chronicity. The follow up of the patient showed benign course compatible with geographic stomatitis without a progressive course.



Fig. 1. Erosive plaques that are restricted by well-defined whitish borders on the lower lip mucosa



Fig. 2. Erosive plaques that are restricted by well-defined whitish borders on the left buccal mucosa

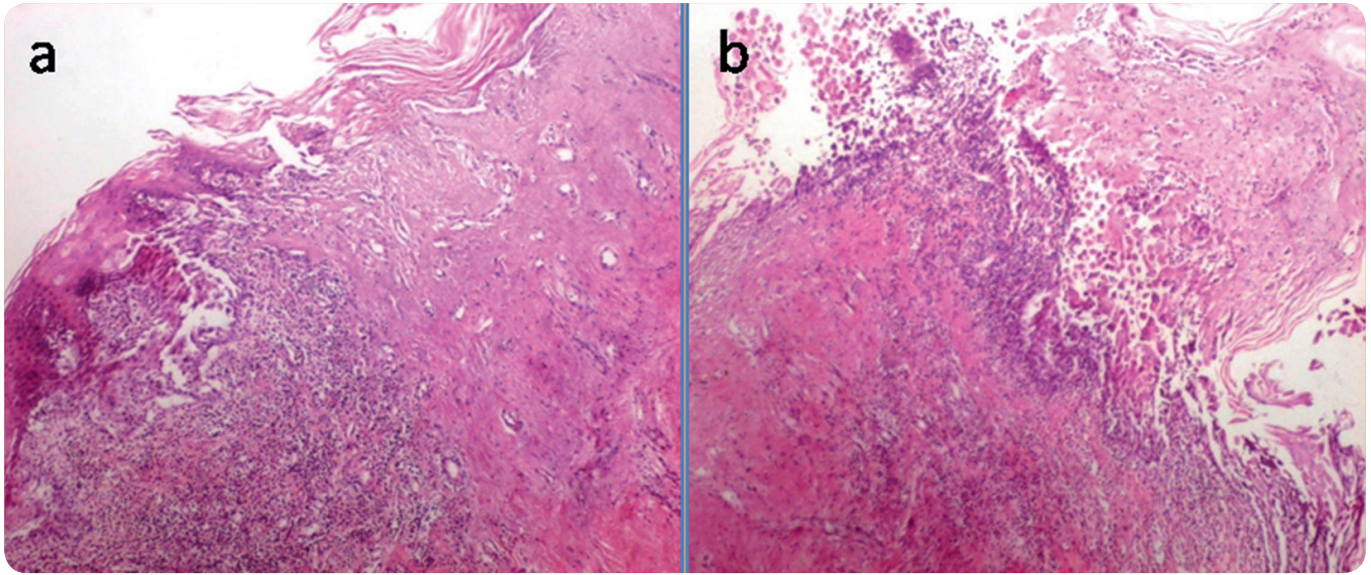


Fig. 3a,b. Suprabasal cleft and acantholytic dyskeratotic cells x40, H.E.

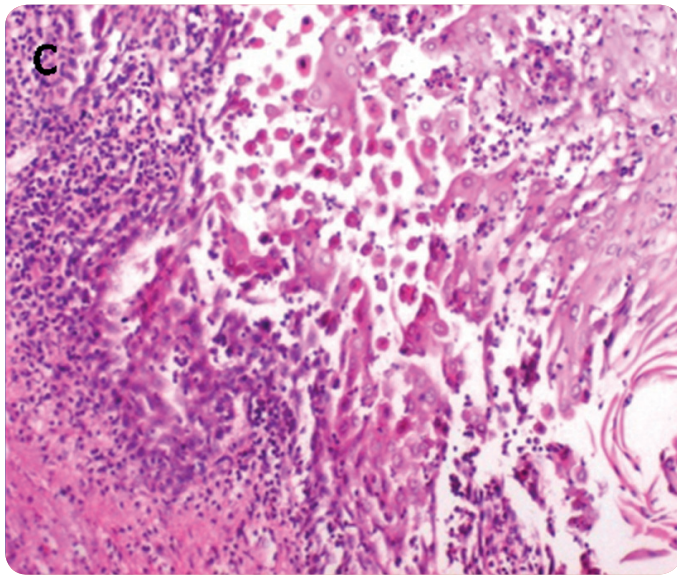


Fig. 3c. Suprabasal cleft and acantholytic dyskeratotic cells with a mixed inflammatory infiltration under the epithelium x100 H.E.

Discussion

Geographic stomatitis was first named by Cooke in 1955 as *eritema migrans*.⁵ Geographic stomatitis is also named as migratory stomatitis, stomatitis areata migrans, erythema circinate migrans, ectopic geographic tongue, annulus migrans, Cooke's disease, and migratory mucositis in the literature.⁶

The lesions frequently involve buccal, labial or mucobuccal mucosa.⁷ Gingiva and soft palate involvements are unusual.⁶ The lesions may range in size from a few millimeters to a few centimeters. In our case, the lesions, which were only a few centimeters, were located in buccal and labial mucosa.

The lesions are usually asymptomatic, but some patients may complain about symptoms such as pain, burning, and itching. Geographic stomatitis is a disease with exacerbations and remissions. The shape and displacement of the lesions are characteristics. However, according to Brooks et al. only 34% of patients found the lesions to be migratory patterns.⁷ Thus, geographical stomatitis term has been used more than the term migratory. Patients with geographic stomatitis also have a higher frequencies of geographic and scrotal tongue.⁸

The etiopathogenesis of geographic stomatitis is not fully understood. There is no definite difference between the lesions of geographic tongue and geographic stomatitis.^{9,10} Geographic stomatitis is related to the different localization of these lesions on the oral mucosa.¹¹ It may be associated with atopy, hormonal disorders, psoriasis vulgaris, Reiter's syndrome, nutritional deficiencies, anemia, gastrointestinal disorders, infectious agents and emotional status.^{12,13,14} The diagnosis of geograph-

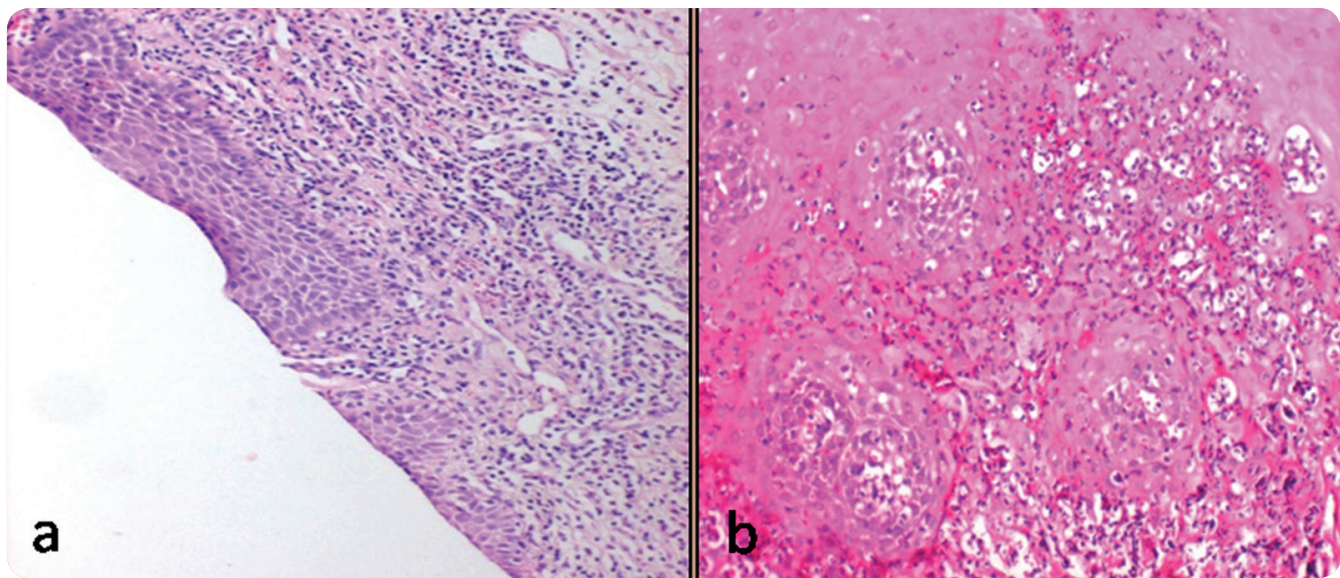


Fig. 4a,b. Mixed inflammatory cell infiltration consisting of polymorphonuclear leukocytes, lymphocytes, and less eosinophils under hyperlastic squamous epithelium. a. x40 H.E, b. x100 H.E.

ic stomatitis is based on clinical signs and symptoms.¹⁵ Erosive lichen planus, pemphigus vulgaris, aphthous stomatitis, traumatic stomatitis, and contact dermatitis are the main differential diagnosis of geographic stomatitis.¹⁶ In our case, the first histopathologic results mimicked pemphigus vulgaris. In addition, the first direct immunofluorescence was reported as positive. Considering the whole process, this DIF result is also suspicious, however, according to histologic and DIF findings supporting pemphigus, we firstly treated this patient with immunosuppressants. Some cases like this can lead to misdiagnosis, delayed diagnosis and unwarranted overtreatment of a potentially benign disorder.¹⁷ Patients with geographic stomatitis should avoid smoking, acidic, salty, spicy, and hot foods that may exacerbate their symptoms.¹² The treatment is symptomatic and includes topical anesthetic and steroid treatment.¹⁶ Removal of nutritional deficiencies can reduce the symptoms.¹⁶ In our case, the follow-up showed benign course compatible with geographic stomatitis without a progressive course. The patient was advised to avoid smoking, acidic, salty, spicy, and hot foods and the symptoms were reduced.

In this article, we presented a case of geographic sto-

matitis mimicking pemphigus. We wanted to draw attention to the fact that these cases could be mistakenly diagnosed with pemphigus and receive unnecessary laboratory tests and treatments.

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