CASE REPORT

GEOGRAPHIC TONGUE – A CASE REPORT

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INTRODUCTION

Geographic tongue is an asymptomatic inflammatory disorder that usually occurs on the dorsal surface and lateral border of tongue (Assimakopoulos et al., 2002). The pinkish-red areas of different size are surrounded, at least in part, by an irregular white border. The appearance of the affected portion of the tongue results from loss of the conical shaped projections (filiform papilla) which normally cover the tongue’s surface (Shahjad et al., 2014). Occasionally, similar appearing lesions occur on other oral sites, such as the palate, cheeks, under the tongue or on the gingival (Borrie et al., 2007) However, its etiopathogenesis is not very clear. Thus, here, we present a case of geographic tongue in a 60 year old male patient, emphasizing on its etiopathogenesis.

Case Report

A 60 year old male patient came to the outpatient department, with a complaint of red patch on the tongue and has mild burning sensation on eating spicy food for past 2-4 months. On examination of tongue, few pinkish-red depapillated or atrophic raised patches surrounded by white serpentine borders were seen on the dorsal surface and lateral border of the tongue (Fig. 1, 2 and 3). When proper history was recorded, patient reveals that these patches kept changing their position. Patient was under stress for past few months and it increased when he noticed the changes in his tongue. Hence, on the basis of history and clinical findings, a diagnosis of geographic tongue was made.

DISCUSSION

Geographic tongue is a very common condition. It can occur at any time in life. Estimation of affected people is 2.5% of the population of the India. It tends to vary in color, shape and size so the name of the condition. Other names of geographic tongue are benign migratory glossitis, wandering rash, erythema migrans and migrant glossitis. Multiple affected areas are commonly seen. It may also completely disappear for a period of time and then reappear. Fissured tongue and geographic tongue commonly occur together (Bruna, 2015). The cause of geographic tongue is unknown. Several factors have been proposed as possible causes such as emotional stress, psychological factors, habits, allergies, diabetes and hormonal disturbances. However, none of these factors have been conclusively linked to geographic tongue. In our patient stress could be the cause of Geographic tongue.

Abstract:

We report here a case of geographic tongue associated with chronic stress in a 60 year old male patient. He noticed the change in colour on tongue and the patches were also changing their positions. Mild burning sensation was reported and for curing this topical anesthetics were given.
A relationship between geographic tongue and psoriasis (a skin disease) has been reported. Geographic tongue was found to be more frequent in patients with psoriasis. Some consider geographic tongue an oral form of psoriasis (Femino, 2001). A study done by Ebrahimi et al on relation between stress and geographic tongue says that psychosomatic factors appear to play a significant role in its etiology. In another study by Redmen et al a higher prevalence of geographic tongue is found in mentally ill patients as compared to university students. They also noticed that students under emotional stress tended to have more severe lesions (Ebrahimi, 2010). In most cases, a biopsy is not necessary to establish the diagnosis because of the identifiable clinical findings and history. But if biopsy sample was taken, the histopathologic appearance of geographic tongue is quite similar to psoriasis i.e. hyperparakeratosis, acanthosis, subepithelial lymphocyte inflammatory infiltration, neutrophils and granulocytes migration into the superficial epithelial layer resulting in formation of superficial microabscesses, similar to the Monro’s microabscesses as seen in pustular psoriasis (Masaya Ishibashi et al., 2010; Tarakji et al., 2014). Some other pustular diseases affect the oral mucosa like parulis at the orifice of a fistula extending to the surface from a dental or periodontal abscess, pyostomatitis vegetans and subcorneal pustular mucositis in geographic tongue is quite similar to psoriasis i.e. hyperparakeratosis, acanthosis, subepithelial lymphocyte inflammatory infiltration, neutrophils and granulocytes migration into the superficial epithelial layer resulting in formation of superficial microabscesses, similar to the Monro’s microabscesses as seen in pustular psoriasis (Masaya Ishibashi et al., 2010; Tarakji et al., 2014). Some other pustular diseases affect the oral mucosa like parulis at the orifice of a fistula extending to the surface from a dental or periodontal abscess, pyostomatitis vegetans and stomatitis herpetiformis. Such lesions show neutrophilic infiltration in the basal layer of the epithelium or underlying connective tissue unlike oral psoriasis (Tarakji, 2014). There is also subcorneal pustular mucositis in the mouth, but the separation of the keratin layer from the spinous layer helps to differentiate it from migratory glossitis (Tarakji, 2014). Geographic tongue is usually asymptomatic, occasionally it may cause a burning sensation of the tongue. (Wadhawan et al., 2013) Therefore, in most cases, there is no need for treatment of this condition. If burning sensation persists, in this situation, topical anesthetics can be used for surface numbing. (Kumar et al., 2015) Geographic tongue is benign condition and till date, no malignant potential has been reported regarding geographic tongue causing cancer.

**Conclusion**

Though it is a very commonly occurring lesion, its etiopathogenesis is still controversial so more studies and case reports are required emphasizing on its pathogenesis.

**REFERENCES**


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