INTRODUCTION

Geographic tongue (Benign migratory glossitis) may be characterized by erythematous patches with whitish margins across the surface of the tongue, with periods of exacerbation and remission that confer the typical migratory aspect of this entity.¹ The central erythematous patch represents atrophy of the filiform papillae. The white border is composed of regenerating filiform papillae and a mixture of keratin and neutrophils. The fungiform papillae remain shiny, dark red eminences. It is a benign condition commonly occurring on the tip, lateral borders, and dorsum of the tongue; lesions sometimes extend to the ventral portion as well.² The etiology of geographic tongue is not well understood.³ The diagnosis is based on history and clinical presentation, characteristics of the lesion particularly the migratory pattern on the dorsal surface of tongue. Geographic tongue is an inflammatory disease usually asymptomatic in nature but in some cases burning sensation has been reported. Similar lesions may also be seen in atrophic candidiasis, local trauma, drug induced reactions, chemical burn, psoriasis, atrophic lichen planus and erythema migrans.⁴

The purpose of this study was to determine the clinical presentation of geographic tongue, associated etiological factors and treatment modalities.

CASE REPORT

A 13 year old male came to OPD with the complaint of pain in lower left side, particularly in first molar. Pain was severe and continuous in nature, radiated towards head and was aggravated on eating food and relieved by medicine. During intra oral examination lower left first molar was found carious. Working diagnosis was reversible pulpitis and a periapical radiograph was taken. He was advised to have RCT followed by porcelain crown. Besides, on doing further oral examination it was diagnosed that he has geographic tongue and patient was not aware from it. His medical history was unremarkable. Detailed history related to tongue, that condition is mostly asymptomatic but rarely mild burning sensation occurs on tongue on eating spicy food and drinking acidic beverages. On examination of tongue, groups of smooth, reddish-pink, atrophic, or depapillated patches on the dorsum or lateral borders of the tongue were noted. These patches frequently have a slightly elevated, thin, yellow border (Fig 1 & 2). Just to differentiate it from other similar oral lesion such as psoriasis, Reiter syndrome, glossitis, lichen planus and lupus erythematosus his scalp, hair, palms, nails, soles and eye were examined but no abnormalities were found. This patient was prescribed benzydamine hydrochloride mouth wash for symptomatic relief. On second visit there was improvement in his symptoms and on observing the oral lesion in patient his parents and siblings were called for detailed oral examination but no such lesion were found among them.

DISCUSSION

A plenty of geographic tongue literature is available. One case is discussed here. The prevalence of the appearance of geographic tongue is important and it varies from region to region and studies conducted in those regions. According to the study of Goswami the prevalence of geographic tongue ranged from 1.0-2.5% in the study population.⁵ Darwazeh reported the prevalence which was 4.8% in Jordanian popula-
Investigations proved that there was no specific racial predilection or gender difference observed in their studies. Contrary to this, the study conducted by Brian revealed that geographic tongue was highly expressed in white and black population as compared to Mexican Americans. In United States of America geographic tongue prevalence range is from 1-14%. The most commonly affected site is the tongue; however, other oral mucosal soft tissue sites may be affected. The majority of affected patients are asymptomatic. However, discomfort ranging from foreign body sensation to minimal itching to a severe burning sensation, which may occasionally interfere with eating or sleeping. Moreover, some patients implicate smoking and seasoned or spicy foods as aggravating factors. The etiology of geographic tongue is not well understood, but various factors contribute in the pathogenesis of this disease. Some researchers still consider it as an anomaly of tongue and others mark it as hereditary in origin. Geographic tongue has been reported with increased frequency in patients with psoriasis and in patients with fissured tongue. Geographic tongue and fissured tongue have been reported in association with chronic granulomatous disease. Previous studies have shown the involvement of geographic tongue with various systemic and psychological factors such as anemia, emotional stress, Reiter’s syndrome, allergies, diabetes and hormonal disturbances. The histopathological findings are parakeratosis and psoriasiform hyperplasia with neutrophilic infiltration into the epithelium. The diagnosis of BMG usually is based on the history and clinical presentation. When the lesion is asymptomatic no medical intervention is required. Topical prednisolone can be used for the treatment of symptomatic lesion. A topical or systemic antifungal medication can be tried if secondary candidiasis is suspected. Nevertheless, successful treatment with cyclosporine and with topical and systemic antihistamines has been reported. Patients are encouraged to brush the dorsum of the tongue to eliminate debris that may serve as an irritant, if the condition is symptomatic.

REFERENCES