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CASE REPORT

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Benign migratory glossitis: Report of two cases

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ABSTRACT:

Benign migratory glossitis (BMG) or geographic tongue is a benign condition in which asymptomatic smooth erythematous patches with discrete borders appear on the dorsum of the tongue. The condition usually is discovered on routine clinical examination. This ulcer like lesion may recur at different sites on the tongue, creating a migratory appearance and mostly resolves completely. This article presents two cases of BMG, one in a four year old child with mild symptoms and other as asymptomatic in 40 year old adult .The patients presented with a classical clinical picture of ulcer like regions on the dorsum of the tongue with loss of filiform papilla.

Key words: ***Benign Migratory Glossitis (BMG), geographic tongue***

INTRODUCTION

Benign migratory glossitis was first reported as a wandering rash of the tongue in 1831 by Rayer.[1] This constantly changing pattern of serpiginous white lines surrounding areas of depapillated mucosa resembles land masses and oceans on a map. A number of synonyms are used in literature to refer to this condition like geographic tongue (GT), erythema migrans, annulus migrans. Sapiro and Shklar also called it as 'stomatisis areta migrans'.[2] The characteristic appearance of Benign migratory glossitis is that they occur as multifocal, circinate, erythematous patches surrounded by white serpiginous lines on the dorsum of the tongue. These lesions may be solitary or multiple, intermittent or continous. The term 'migratory' is used to denote apparent migration due to simultaneous epithelial desquamation at one site and proliferation at another.

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The etiology of Benign migratory glossitis is unknown. Many factors have been suggested like congenital anomaly, asthma, rhinitis,[3] systemic diseases like psoriasis,[4,5]anemia, gastrointestinal disturbances, candidiasis, lichen planus, hormonal imbalance, psychological conditions, etc. Eidelman et al[6] concluded that benign migratory glossitis was a familial condition with significant role of heredity and the prevalence of benign migratory glossitis in parents and sibling combination was significantly higher than in general population. Redman et al found a strong tendency for familial occurrence of BMG. Wysocki et al[8] investigated the prevalence of BMG in patients with juvenile diabetes as it is known that HLA-B15 occurs more commonly in insulin dependent diabetic patients. They found a prevalence of 8% in type 1 type of diabetes patients. They concluded that BMG may be a clinical marker for insulin dependent diabetes mellitus.[8] Barton et al[1] found statistically significant relationship between BMG and allergy. Allergies like that of drug, food,

pollen, animal etc. Marks et al[3] found increased prevalence of BMG among patients with atopy due to asthma and rhinitis. BMG is also seen to occur in association with fissured tongue and geographic stomatitis. Van der Wal et al suggested that BMG is an oral manifestation of psoriasis. Psoriasis is a dermatological condition which occurs due to increased turnover rate of epithelium and is clinically present as scaly plaques and erythematous papules.

The prevalence of geographic tongue is 0.89% in Indian population.[9] Other studies suggest prevalence of GT between 1.0% to 2.5% in general population.[10,13] The highest prevalence of 14% is seen in Israeli children between ages 0 to 2 years[10] and 8% in Japan. Jainkittivong et al suggest disorder is more common in females (61%) than males (39%). Whereas a study by Sedano showed male predilection while others like Meskin, Rahamimoff[10] showed insignificant difference in occurrence of BMG between males and females. Shulman et al[11] discovered that BMG is inversely associated with cigarette smoking.

Based on the clinical signs and symptoms along with history, diagnosis of BMG can be made. In most of the cases BMG is asymptomatic, yet is a source of anxiety. However few patients complain of mild burning, irritation, discomfort to spicy foods and in few cases severe oral pain is the chief complaint. Differential diagnosis includes atrophic candidiasis, psoriasis, atrophic lichen planus, leukoplakia, systemic lupus erythomatosis, Reiters syndrome[5] etc. This article presents two case reports of BMG one with mild symptoms and other asymptomatic.

CASE 1

A parent who reported to the OP Department with a 4 year old child with the chief complaint of itching of the tongue and the child "scratching "the tongue often with fingers. On examination there was localised absence of filiform papillae on the dorsum of the tongue and the affected area was erythematous and irregular in shape with raised white margins. Few prominent bright red fungiform papillae were also seen. History of the lesion revealed that the shape and location of the lesion changed over time. General physical examination showed no abnormal findings. Child appeared healthy, and hand no history of allergy, asthma, psoriasis, current steroid or antibiotic use etc.

Intraoral examination revealed good oral hygiene and other members of the family had no such oral condition. The parents revealed that occasionally symptoms like itching or tingling was present on eating hot or spicy food. The parents were explained about the benign nature of the condition and suggested a periodic follow up of 6 months or often if symptoms aggravated.

Figure1: Geographic Tongue

Figure 2: Geographic Tongue

CASE 2

A 38 year old man reported to the OPD with a complaint of tooth pain. On intra oral examination it was discovered that the patient had acute dental caries in the lower molars and the well demarcated irregular erythematous area on the dorsum of the tongue. Further history revealed that the tongue lesion was present only from 6 months and was

asymptomatic. Other family members were free this condition. No other remarkable findings were present. Patient had no history of allergy, drug use, diabetes or skin lesions. Exfoliative cytology was done to rule out candidiasis. Based on the clinical appearance, a diagnosis of BMG was made.

Figure 3: Geographic Tongue

DISCUSSION

BMG occurring as a asymptomatic ulcer like region on the dorsum of the tongue is not uncommon. But symptomatic BMG is rare (2). Children or adults with tongue ulceration should have a thorough medical history taken to rule out allergies like asthma, hayfever, psoriasis etc. Oral candidiasis if any can be diagnosed with Exfoliative cytology. Biopsy as a last option reveals the loss of stratum corneum and upper layers of stratum spinosum in erythematous areas. Infiltrate of inflammatory cells like polymorphonuclear leukocytes and lymphocytes. Acanthotic epithelium and corium is seen corresponding to surrounding outline. Munroe's abscess along with thin elongated reteridges is present.[5] Diagnosis of BMG can be made based on a detailed history and thorough oral and physical examination. Exfoliative cytology is suggested to rule out candidiasis. Biopsy is not indicated.

TREATMENT

BMG is common in children and is mostly asymptomatic. Reassuring the patient that the lesions are benign and they may disappear, reappear and change location is important. Periodic follow up is required.[12,14] However, mildly symptomatic BMG can be treated with topical anaesthetic agents like lidocaine rinse for local pain relief. Anti-fungal medication is initiated if secondary candidiasis is suspected.[2] In severely symptomatic cases as in those affecting day to day activities like eating, speaking etc. Anti-histamine treatment is suggested.[15] If no response is seen, cortico steroid therapy is suggested.

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