



## SYMPTOMATIC BENIGN MIGRATORY GLOSSITIS: A RARE CASE REPORT

Vaibhav Motghare<sup>1\*</sup>, Sumedha Kushwaha<sup>1</sup>, Moulshree Kohli<sup>2</sup>, Kh. Nganba<sup>3</sup>,  
Jayaprakash K<sup>4</sup>, Shivalingesh KK<sup>5</sup>

: <sup>1</sup>Department of Public Health Dentistry, <sup>2</sup>Department of Oral Pathology, <sup>3</sup>Department of Pedodontics,  
<sup>4</sup>Professor and Head, <sup>5</sup>Reader, Department of Public Health Dentistry,  
I.T.S Dental College Hospital and Research Centre, Greater Noida, Uttar Pradesh 201308, India.

Corresponding Author:- **Vaibhav Motghare**  
E-mail: [vaibhav.motghare@gmail.com](mailto:vaibhav.motghare@gmail.com)

Article Info	ABSTRACT
<p>Received 15/01/2015 Revised 27/01/2015 Accepted 02/02/2015</p> <p><b>Key words:</b> Benign Migratory Glossitis.</p>	<p>Benign Migratory Glossitis “is a recurrent and transient condition characterized by periodic localized loss of epithelium particularly of the filiform papillae on the dorsum of the tongue. It is clinically recognizable as multifocal, circinate, irregular erythematous patches while Histological features include presence of Monro’s abscesses, in the keratin and spinous layers. Present article reports occurrence of Benign Migratory Glossitis in a six year old male child, diagnosed in a dental screening camp in Greater Noida, India.</p>

### INTRODUCTION

Benign Migratory Glossitis “is a recurrent and transient condition characterized by periodic localized loss of epithelium particularly of the filiform papillae on the dorsum of the tongue. It was first reported as a wandering rash of the tongue in 1831 by Rayer.” [1-3]. Various terminologies like “geographic tongue, wandering rash of tongue, erythema migrans, annulus migrans etc” are being used to describe the condition. It mostly occur intraorally in tongue with “tip, lateral borders, and dorsum of the tongue” being mostly affected [4]. This condition sometimes also occur extraglosally in “gingiva, floor of mouth, soft palate, labial and buccal mucosa” [5-8]. Geographic tongue is clinically recognizable as “multifocal, circinate, irregular erythematous patches bounded by a slightly elevated, white or cream colored keratotic band or line”.

According to various studies prevalence of Geographic Tongue in Indian population is estimated to be 0.89% [9,10]. Studies done by Meskin LH et al and Redman RS had shown a prevalence of 1.0% to 2.5% among general population [11,12]. Highest prevalence of Geographic tongue was found among Israeli children in the

age group of 0-2 years. There is apparently no exact sex predilection with some studies suggesting females to be more commonly affected than males [13,14], while some authors suggest that this condition is more prevalent among boys [15,16]. According to some studies there is no definitive sex predilection [17-20]. Various etiological factors like “hereditary, genetic factors, emotional stress, diabetes, hormonal disturbances, psoriasis, psychosomatic factors, anemia, reiters syndrome” have been suggested to be associated with the disease. However, no distinct documentation of causal relationship is present. Diagnosis of geographic tongue is based mainly on the patient history, clinical examination and histological features. In most of the cases Geographic Tongue is an asymptomatic condition yet sometimes patient may complaint of oral pain or burning sensation to spicy food. Due to asymptomatic nature of disease most of the patients do not seek treatment for it and it had been found that children mostly are not able to communicate their symptoms to parents. The present article reports a case of Benign Migratory Glossitis with mild symptoms diagnosed in a dental screening camp in Greater Noida.



## CASE 1

Dental screening camp was organized in a private primary secondary school in Greater Noida and informed consent was taken from the parents as well as school authorities. All the students studying in the school underwent free dental examination and oral health education was given to all school children after completion of dental checkup. Those children who required treatment were referred to a dental institute in Greater Noida. A six year old boy gave a complaint of burning sensation in tongue on eating spicy food. Past medical history from mother revealed no history of allergy, antibiotic use and there was no family history of psoriasis. Intra oral examination revealed absence of filiform papilla on the dorsum of the tongue and the affected area was erythematous and irregular in shape with raised white margins that could not be scrapped off. General physical examination revealed no relevant findings. Patient was referred to the private institute and was given topical anesthetic agent.



## DISCUSSION

Benign Migratory Glossitis mostly occur as an asymptomatic lesion with very few symptomatic cases had been reported in the literature [21]. Clinical picture presents as a small white patch in the beginning, which later develops into a central erythematous atrophic zone enlarging centrifugally. It usually appears as multiple, well demarcated zones of erythema concentrated at the tip and lateral borders of the tongue. The erythema is due to atrophy of the filiform papillae, these atrophic areas are typically surrounded by a slightly elevated, yellow white serpentine or scalloped border [22].

Histologically it is characterized by a thickened layer of keratin which is infiltrated with neutrophils. These inflammatory cells often produce small microabscesses, called Monro's abscesses, in the keratin and spinous layers [23]. Rete ridges are typically thin and elongated with only thin layer of epithelium overlying the connective tissue papillae.

## TREATMENT

Benign Migratory Glossitis in most cases is asymptomatic and regular follow up checkup is required. In mild symptomatic cases topical anesthetic agents like lidocaine gels can be prescribed for relief of burning sensation and pain. In case of secondary infections anti – fungal medications can be prescribed. If no response is seen then anti-histamine treatment or corticosteroid treatment had been suggested [23].

## REFERENCES

1. A Hooda, M Rathee, J Gulia, S Yadav. (2009). Benign Migratory Glossitis, A Review. Available from : URL : <http://www.ispub.com/IJFP/9/2/9625>. Accessed on 30<sup>th</sup> August 2013.
2. Prinz H. (1927). Wandering rash of the tongue (geographic tongue). *Dent Cosmos*, 69, 272-5.
3. M Goswami, A Verma, M Verma. (2012). Benign migratory glossitis with fissured tongue. *Journal of Indian Society of Pedodontics and Preventive Dentistry*, 30(2), 173-175.
4. Jankittivong A, Langlais RP. (2005). Geographic Tongue, Clinical Characteristics of 188 Cases. *J Contemp Dent Pract*, 6(1), 123-35
5. Warnock GR, Correll RW, Pierce GL. (1986). Multiple, shallow, circinate mucosal erosions on the soft palate and base of uvula. *J Am Dent Assoc*, 112, 523-524.
6. Rhyne TR, Smith SW, Minier AL. (1988). Multiple, annular, erythematous lesions of the oral mucosa. *J Am Dent Assoc*, 116, 217-218.
7. Espelid M, Bang G, Johannessen AC et al. (1991). Geographic stomatitis, Report of 6 cases. *J Oral Pathol Med*, 20, 425-428.
8. Lucas VS, Challacombe SJ, Morgan PR. (1993). Erythema migrans, an unusual presentation. *Br Dent J*, 175, 258-259.
9. Patil S, Kaswan S, Rahman F, Doni B. Prevalence of tongue lesions in the Indian population. *J Clin Exp Dent*. Jul 2013; 5(3): e128-e132.
10. Shobha BV and Barkha N. (2011). Benign migratory glossitis, Report of two cases. *Indian Journal of Dental Advancements*, 3(4), 708-710.
11. Meskin LH, Redman RS, Gorlin RJ. (1963). Incidence of geographic tongue among 3668 students at the University of Minnesota. *J Dent Res*, 42, 895.
12. Redman RS. (1970). Prevalence of geographic tongue, fissured tongue, median rhomboid glossitis and hairy tongue among 3611 Minnesota school children. *Oral Surg Oral Med Oral Pathol*, 30(3), 390-395.
13. Halperin V, Kolas S, Jefferis KR et al. (1953). The occurrence of fordyce spots, benign migratory glossitis, median rhomboid glossitis, and fissured tongue in 2,478 dental patients. *Oral Surg Oral Med Oral Pathol*, 6, 1072-1077.
14. Banoczy J, Rigo O, Albrecht M. (1993). Prevalence study of tongue lesions in a Hungarian population sample. *Community Dent Oral Epidemiol*, 21, 224-226.



15. Chosack A, Zadik D, Eidelman E. (1974). The prevalence of scrotal tongue and geographic tongue in 70,359 Israeli school children. *Community Dent Oral Epidemiol*, 2, 253-257.
16. Voros-Balog T, Vincze N, Banoczy J. (2003). Prevalence of tongue lesions in Hungarian children. *Oral Dis*, 9, 84-89.
17. Sedano HO, Carreon Freyre I, Garza de la Garza ML et al. (1989). Clinical orodental abnormalities in Mexican children. *Oral Surg Oral Med Oral Pathol*, 68, 300-311.
18. Ghose LJ, Baghdady VS. (1982). Prevalence of geographic tongue and plicated tongue in 6090 Iraqi school children. *Community Dent Oral Epidemiol*, 10, 214-216.
19. Regezi JA, Sciubba JJ. (1993). Oral pathology. Clinical-pathologic correlations. Philadelphia, WB Saunders, 150-151.
20. Rhyne TR, Smith SW, Minier AL. (1988). Multiple, annular, erythematous lesions of the oral mucosa. *J Am Dent Assoc*, 116, 217-218.
21. Burton DH, Spier SK, Crovello TJ. (1982). Benign Migratory glossitis and allergy. *Pediatr Dent*, 4, 249-250
22. Neville W. Brad. (2009). Textbook of Oral and Maxillofacial Pathology. 3rd edition. Elsevier, 779-780.
23. Shafer, Hine, Levy. (2006). Text book of Oral Pathology. 5<sup>th</sup> edition. Elsevier, 30.

