

GEOGRAPHIC TONGUE

Swati Sharma¹, Smriti Sharma²

1. Reader, Department of Preventive & Community Dentistry, School of dental sciences Sharda University, Greater Noida, UP

2. Senior Lecturer, Department of Oral Medicine & Radiology, Darshan Dental College, Udaipur, Rajasthan.

ABSTRACT:

Geographic Tongue is a psoriasiform mucositis of the dorsum of the tongue. Its main feature is a constantly changing pattern of serpiginous white lines surrounding areas of smooth, depapillated mucosa. The etiology of geographic tongue is unknown but it does seem to become more prominent during conditions of psychological stress & is found in increased frequency in persons with psoriasis of the skin.

Key words: Denudation, exacerbation, remission, desquamation.



INTRODUCTION:

Geographic Tongue refers to irregularly shaped, reddish areas of depapillation & thinning of the dorsal tongue epithelium that are usually surrounded by a narrow zone of regenerating papillae that is whiter than surrounding tongue surface.

It is a benign condition commonly occurring on the tip, lateral borders & dorsum of the tongue.

Geographic tongue is characterized by periods of remission & exacerbations of varying duration. During remission, the condition resolves without residual scar formation. Recurrence tends to occur in new locations, thus producing the migratory pattern. It can occur extra-glossally on lateral surfaces also [1-9].

The aim of this paper is to report a case of Geographic Tongue in a 36 year old female, reported at the camp site in village Pachayatan, G.B. Nagar District, UP.

CASE DETAIL:

This is a case of a 36 year old female, who reported us at a camp conducted on 24th Jan 2012 at village Pachayatan, G.B. Nagar District, UP.

She came for the restoration of her teeth in the camp. The patient had a lesion on dorsal surface of tongue with raised white borders & slightly depressed atrophic centres since birth. There is denudation of filiform papillae in the atrophic centres. She also gave the history of migratory nature of the lesion. She told that for few weeks the lesion is at dorsal surface of the tongue, later it migrates to lateral border of tongue & sometimes at the tip. She knew about this lesion since

*Corresponding Author Address: Dr. Swati Sharma, Reader, Department of Preventive & Community Dentistry, School of dental sciences Sharda University, Greater Noida, UP Email: swati.sharma@sharda.ac.in

childhood, but as it was asymptomatic, no treatment was required.

She takes only vegetarian & non spicy food, with no history of any adverse habits. She did not give any relevant medical history nor the family history was related to the lesion.

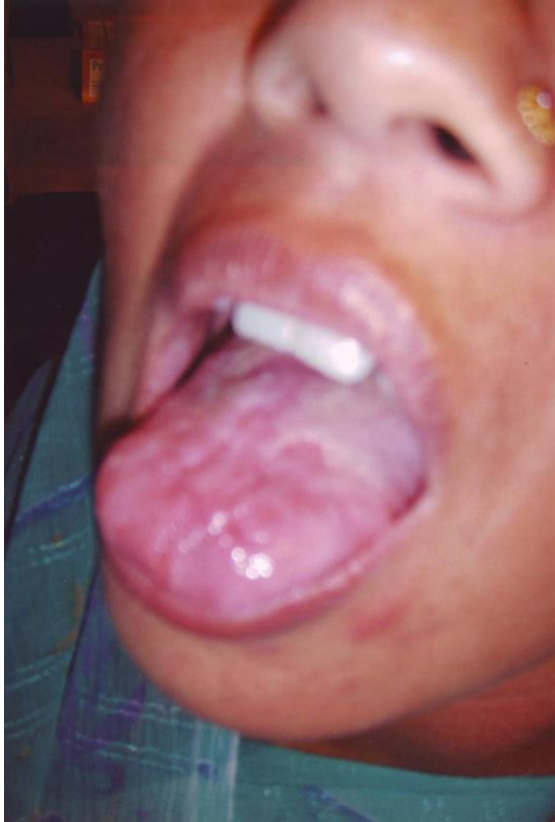


Figure 1:Geographic tounge

Oral examination revealed circinate irregular erythematous patches bound by a slightly elevated white/ cream coloured keratotic band/ line.The central erythematous patch represents atrophy of filiform papillae.

The clinical diagnosis is based on its characteristics history of migration, its circinate appearance & lack of significant pain as opposed to burning as a subjective complaint. For confirmation of diagnosis, we performed histopathological examination of the lesion.

Histopathological examination revealed loss of filiform papillae leaving a flattened mucosal surface .The white circinate lines show peripheral hyperkeratosis & acanthosis.Central erythematous areas reveal desquamation of papillation & exocytosis of polymorphonuclear leukocytes & lymphocytes in the epithelium. A mixed inflammatory infiltrate of lymphocytes, plasma cells & neutrophils is seen in underlying connective tissue.

DISCUSSION:

The etiology of Geographic tongue remains unknown .Several related etiologic factors have been proposed, however none of the suggested causes provide clear-cut evidence of a causal relationship. Some investigators have classified this condition as a congenital anomaly. Other researchers have discussed the role of heredity in its development [10]. Some investigators have suggested geographic tongue is an oral manifestation of Psoriasis [11-12].Psychosomatic factors appear to play a significant role in the etiology of geographic tongue [13].

Geographic tongue may occur at any age with no apparent racial predilection. According to some investigators this condition is more prevalent in younger individuals [14,15,16] however others have found most cases are noted in patient over 40 years of age [17]

The sex predilection of affected individuals varies with different studies. Geographic tongue was noted more in women than in men [18]. On the contrary, some authors reported this condition

occurs more frequently in boys [19,20]. Other authors observed no sex predilection [21]

CONCLUSION:

To our knowledge, this kind of case is among the 1st case in that area, but since it

doesn't have a known etiology, we need to find out more cases in that area to come to some conclusion for its cause. For symptomatic lesions, it can be treated with topical prednisolone & systemic multivitamins.

REFERENCES:

1. Hume WJ. Geographic stomatitis: A critical review J Dent 1975; 3: 25-43.
2. Brooks JK, Balciunas BA. Geographic stomatitis: review of the literature and report of five cases. J Am Dent Assoc 1987; 115: 421-424.
3. Van der Wal N, Van der Kwast WA, Van Dijk E, et. al. Geographic stomatitis and psoriasis. Int J Oral Maxillofac Surg 1988; 17: 106-109.
4. Raghoobar GM, de Bont LG, Schoots CJ. Erythema migrans of the oral mucosa. Reported of two cases. Quintessence Int 1988; 19: 809-811.
5. Saprio SM, Shklar G. Stomatitis areata migrans. Oral Surg Oral Med Oral Pathol 1973; 36: 28-33.
6. Warnock GR, Correll RW, Pierce GL. Multiple, shallow, circinate mucosal erosions on the soft palate and base of uvula. J Am Dent Assoc 1986; 112: 523-524.
7. Rhyne TR, Smith SW, Minier AL. Multiple, annular, erythematous lesions of the oral mucosa. J Am Dent Assoc 1988; 116: 217-218.
8. Espelid M, Bang G, Johannessen AC, et. al. Geographic stomatitis: report of 6 cases. J Oral Pathol Med 1991; 20: 425-428.
9. Lucas VS, Challacombe SJ, Morgan PR. Erythema migrans: an unusual presentation. Br Dent J 1993; 175: 258-259.
10. Eidelman E, Chosack A, Cohen T. Scrotal tongue and geographic tongue: polygenic and associated traits. Oral Surg Oral Med Oral Pathol 1976; 42: 591-596.
11. Weathers DR, Baker G, Archard HO. Psoriasiform lesions of the oral mucosa (with emphasis on "ectopic geographic tongue"). Oral Surg Oral Med Oral Pathol 1974; 37: 872-888.
12. Pogrel MA, Cram D. Intraoral findings in patients with psoriasis with special reference to ectopic geographic tongue (erythema circinata). Oral Surg Oral Med Oral Pathol 1988; 66: 184-189.
13. Redman RS, Vance FL, Gorlin RJ, et. al. Psychological component in the etiology of geographic tongue. J Dent Res 1966; 45: 1403-1408.

14. Sedano HO, Carreon Freyre I, Garza de la Garza ML, et. al. Clinical orodental abnormalities in mexican children. *Oral Surg Oral Med Oral Pathol* 1989; 68: 300-311.
15. Kleinman DV, Swango PA, Niessen LC. Epidemiologic studies of oral mucosal conditions – methodologic issues. *Community Dent Oral Epidemiol* 1991; 19: 129-140.
16. Banoczy J, Rigo O, Albrecht M. Prevalence study of tongue lesions in a Hungarian population sample. *Community Dent Oral Epidemiol* 1993; 21: 224-226.
17. Banoczy J, Szabo L, Csiba A. Migratory glossitis: A clinical-histologic review of seventy cases. *OralSurg Oral Med Oral Pathol* 1975; 39: 113-121.
18. Banoczy J, Rigo O, Albrecht M. Prevalence study of tongue lesions in a Hungarian population sample. *Community Dent Oral Epidemiol* 1993; 21: 224-226
19. Chosack A, Zadik D, Eidelman E. The prevalence of scrotal tongue and geographic tongue in 70,359 Israeli schoolchildren. *Community Dent Oral Epidemiol* 1974; 2: 253-257.
20. Voros-Balog T, Vincze N, Banoczy J. Prevalence of tongue lesions in Hungarian children. *Oral Diseases*, 2003; 9: 84-89.
21. Redman RS. Prevalence of geographic tongue, fissured tongue, median rhomboid glossitis, and hairy tongue among 3,611 Minnesota school children. *Oral Surg Oral Med Oral Pathol* 1970; 30: 390-395