

CASE REPORT



A concurrent kissing lesion of palate: A case report

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Abstract

Median rhomboid glossitis (MRG) is well-delineated erythematous area seen in the dorsum aspect of tongue posteriorly along the midline. It is diamond (rhomboid) in shape where the two ends are in anteroposterior direction. The constant contact of MRG to the area of the palate leads to the formation “kissing lesion” or area of erythematous/roughness patch. Association of candidiasis as oral opportunistic infection is most commonly affecting people whose immune system is compromised due to several etiologies.

Introduction

Median rhomboid glossitis (MRG) is the persistence congenital or acquired abnormality of an embryonic midline tongue structure, the tuberculum impar.^[1] MRG is also called as atrophy tongue papillae (ATP), localized ATP (LAT), and central papillary atrophy tongue with unknown etiology.^[2]

MRG clinically presents as a depapillated shiny region which may be rhomboid/diamond shaped on the dorsum aspect of tongue in midline region anterior to the circumvallate papillae. Occasionally, association of MRG with candidal leukoplakias in the commissural area and palatine kissing lesions is noted. MRG has <1% prevalence rate among adults.

Case Report

A 60-year-old male patient reported with chief complaint of pain in the upper right back teeth region due to decayed teeth. Medical history, allergic history, family history, and general physical examination were non-contributory. The patient had the habit of smoking cigarette and smoked 5 cigarette per day for >25 years. On general examination, the patient was well nourished and moderately built with normal vital signs were noted. On intraoral examination a solitary erythematous depapillated area on the dorsum aspect of the tongue in front of the circumvallet

papilla was observed. Measuring approximately 2 cm × 3 cm in size, roughly rhomboid in shape with centralized atrophic area with margins being ill-defined in the hard palate posteriorly just opposite to the diamond/rhomboid lesion presents on the dorsum aspect of the tongue [Figure 1] On palpation, the lesion was non-tender, non-scrapable [Figure 1] hard tissue examination revealed deep dental caries irt 15 and 16 and with generalized gingival recession. Based on clinical examination and history, MRG of tongue, which was concomitant with inflammation in palatal region; hence, the provisional diagnosis of kissing lesions was given for both tongue and the palatal lesions. Tongue and palate smear [Figure 2] were taken which showed few magenta colored Candida hyphae arranged in crisscross pattern and numerous epithelial cells which are polyhedral in shape and appeared mature with centrally placed nucleus on periodic acid–Schiff (PAS) staining. Based on the clinical presentation and cytology, diagnosis of chronic atrophic candidiasis of palate and tongue was made. Itraconazole 100 mg (Capsule Camlital) OD for 15 days with lotion Clotrimazole 1%, beclomethasone dipropionate 0.025% (Candid-B) as a topical application for 15 days was prescribed. Instruction for the maintenance of good oral hygiene was given to the patient. On follow-up examination, after 2 weeks, the patient had relived of his symptoms.



Figure 1: Rhomboid atrophic areas on dorsum aspect of tongue and hard palate



Figure 2: Smear taking from dorsum aspect of tongue and hard palate for the cytological examination

Discussion

In oral cavity, tongue is the most sensitive organ that has many vital functions such as gustatory (taste) deglutition, phonation, mastication, jaw development, respiration, and symbolic functions. MRG clinically presents as a well-circumscribed rhomboid-/oval-/diamond-shaped lesion, located in the dorsal part of the tongue in midline region 1–3 cm in size in front of the circumvallate papillae.^[3] MRG may vary from studded, red, shiny, smooth and with yellow spots or with shallow fissures between them.^[4] Brocq, in 1914, described MRG first.^[5] In Indian population, the prevalence rate may vary between 0.01 and 0.04% and, in general population, it is <1%. Adult males are more frequently affected than females.^[6] The classical appearance of MRG is as a focus of atrophic symmetrical filiform papilla and exhibits either a lobulated/a smooth surface architecture.^[7] The clinical appearance of MRG is most commonly seen as a lesion is an area of erythematous/white-erythematous patch on the

median dorsum surface of the tongue, anterior to the point where the right and left circumvallate papilla meet. The erythematous area of the affected lingual mucosa can be raised/flat.^[8] It presents with unknown etiology, although it has been proposed that it may be of embryological, inflammatory or it may be derived of immunological origin or from chronic *Candida* infection. MRG may also associated with other factors which includes diabetes mellitus, smoking, HIV, dental prostheses, and candidal infections.^[6,9,10] Studies done in India report a strong relation between LAT and smoking tobacco. MRG is a benign tumor of the tongue often erroneously mistaken for malignancy.

The study conducted by Mehta *et al.* in Ernakulam district, Kerala, India, in 1971, with sample size of 10,000 villagers, the prevalence rate of LAT was 1.3% in cigarette smokers, 0.5% in non-smokers, and 2.3% among bidi smokers.^[2] MRG was thought to be a developmental disorder caused due to incomplete fusion of the two lateral halves of the tongue due to the failure of the withdrawal tuberculum impar, which, in turn, may affect filiform papillae and its development. However, reports of MRG in a child are very less registered. Hence, MRG is a lesion which can be related to a chronic *Candida* infection (*Candida albicans*).^[3] Recent study has proposed that MRG is a type of atrophic form of candidiasis. Hence, it can be classified under types of candidiasis, which causes excessive surface keratin. The study conducted in 1975 by Cooke discovered the *Candida* colonization on the tongue along with secondary hyperplasia in the biopsy specimens of some patients with MRG. Usually, these types of lesions are asymptomatic, but, in few patients, especially in the evident atrophic areas general discomfort was reported due to irritation/pain/pruritus along with Itching or burning sensation in the dorsal aspect of the tongue. Symptoms are transitory in such cases.^[11] Sometimes association of MRG with palatal inflammation, it is known as “kissing lesion” where the lesion is formed directly opposite to the tongue lesion where the lesion develops on the palate; this lesion is mostly seen in patients with suppressed immunity and which results in the development of mycotic organisms on the dorsal part of tongue which often transfers the infection to the palate due constant contact during rest position of tongue, deglutition, and similar movements.^[12] Any case which presents with both palatal lesion and lesion on dorsal part of the tongue immunosuppression should be considered as a predisposing factor. Hence, the immune suppression should be suspected and investigated in these patients should be done. This can be considered as a marker of acquired immunodeficiency syndrome (AIDS). *Candida* infections of both lesions (MRG and kissing lesions of palate) are same in the present case. This implicates that both MRG and kissing lesions of palate occur as a result of constant contact between the MRG with *Candida* infection of dorsal aspect of the tongue and palate/junction of hard and soft palate.^[12] MRG is diagnosed basically by clinical examination, sometimes for differential diagnosis, histopathology is required. The role of *Candida* as an etiology in MRG and kissing lesion can be evaluated histologically by the isolation of *Candida* species pathogens from the lesion by laboratory investigation such as

culture on Sabouraud's dextrose agar of *Candida*, cytological smear, CHROMagar test, and colony-forming units. The study by Sammet *et al.* reported the characteristic histopathological features of elongation of rete ridges which branch and anastomose, spinous layer showing downward proliferation, lymphocytic proliferation, varying degrees of parakeratosis with loss of papillae, and fungal hyphae are readily observed by PAS stain.^[5,7]

Conclusion

MRG was classified as a developmental disorder. However, nowadays, authors are supporting that MRG is an infection of Candidiasis (*C. albicans*) rather the embryogenesis theory. Despite frequent encounter of MRG, little is known about its etiology and remains questionable concerning to its importance. Immunosuppression should be suspected when MRG is associated with kissing lesion and Candidiasis being the common oral opportunistic infection in patients with acquired immunodeficiency kissing lesion can be considered as marker of AIDS. Hence, meticulous clinical examination with proper diagnosis and treatment of kissing lesion is very important.

References

1. Silverman S, Eversole LR, Truelove EL. Essentials of oral medicine. In: Developmental Mucosal Conditions. London: BC Decker Inc Hamilton;2001. p. 255-6.
2. Mehta FS, Bhonsle RB, Murti PR, Daftary DK, Gupta PC, Pindborg JJ. Central papillary atrophy of the tongue among bidi smokers in India; A 10-year study of 182 lesions. *J Oral Pathol Med* 1989;18:475-80.
3. Zegarelli DJ. Fungal infections of the oral cavity. *Otolaryngol Clin North Am* 1993;26:1069-89.
4. Pollack RS. Median Rhomboid glossitis case reported in an infant. *Ann Surg* 1954;139:250-2.
5. Lago-Mendez L, Blanco-Carrion A, Diniz-Freitas M, Gandara-Vila P, Garcia-Garcia A, Gandara-Rey JM. Rhomboid glossitis in atypical location: Case report and differential diagnosis. *Med Oral Patol Oral Cir Bucal* 2005;10:123-7.
6. Bojan A, Christy W, Kurian K, Elangovan S. A study to determine the association between tobacco smoking habit and oral candida! Infection in median rhomboid glossitis by cytologic and histopathological method. *J Ind Aca Oral Med Radiol* 2012;24:106-12.
7. Noonan V, Kabani S. Pathology Snapshot; 2011;59:41. Available from: http://www.exodontia.info/files/Winter_2010_Pathology_Snapshot_Median_Rhomboid_Glossitis.pdf. [Last accessed on 2015 Nov 19].
8. Leite RM, Leite AA, Friedman H, Friedman I. Median rhomboid glossitis associated with esophageic candidiasis. A possible etiologic relation with candida albicans. *An Bras Dermatol* 2002;77:579-83.
9. Van der Wal N, van der Kwast WA, van der Waal I. Median rhomboid glossitis: A follow-up study of 16 patients. *J Oral Med* 1986;41:117-20.
10. Soysa NS, Ellepola AN. The impact of cigarette/tobacco smoking on oral candidiasis: An overview. *Oral Dis* 2005;11:268-73.
11. Median Rhomboid Glossitis. Diseases and Conditions. Health Inset 2013. Available from: <http://www.heal thins et.com/median-rhomboid-glossitis.html>. [Last accessed on 2015 Sep 15].
12. Radfar L. Patient Information Sheet. Median Rhomboid Glossitis. Available from: http://www.exodontia.info/files/American_Academy_of_Oral_Medicine_2007_Patient_Information_Sheet.Median_Rhomboid_Glossitis.pdf. [Last accessed on 2007 Nov 07].

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