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A diabetic patient with Median Rhomboid Glossitis on tongue and kissing lesion on palate – A Case Report

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Abstract

Median Rhomboid glossitis was previously thought to be developmental defect related to persistence of tuberculum impar. Recent research states Median Rhomboid glossitis is a form of chronic atrophic candidiasis. Median Rhomboid glossitis presents as rhomboid, smooth, and erythematous area in the posterior midline of the dorsum of the tongue in front of circumvallate papillae. The predisposing factors for Median Rhomboid glossitis are smoking, Diabetes Mellitus, trauma and Candida infections. Most of them are asymptomatic but some may complain of pain, pruritus and burning sensation. They may be associated with kissing palatine lesions. Diabetes mellitus is a systemic condition which increases the chance of susceptibility of oral candidal infections. Diabetes mellitus has many oral complications which may include Median Rhomboid Glossitis. Here is a case report of diabetic patient with Median Rhomboid glossitis on tongue and kissing lesion on palate.

Key-words: Diabetes Mellitus, Median Rhomboid glossitis, kissing lesion.

Introduction

Median Rhomboid glossitis is a benign lesion with central papillary atrophy of the tongue. Most of the cases are asymptomatic but some patients may complain of persistent pain, irritation, or pruritus. (1) Median Rhomboid Glossitis may occur in association with candidal commissural leukoplakia and palatine kissing lesions. (2) Many tongue lesions result due to altered systemic conditions including Median Rhomboid Glossitis.

When MRG is concomitant with kissing lesions, immunosuppression should be suspected. Kissing lesions develop due to prolonged contact between the Candida-infected midline dorsum of the tongue and the hard palate. (3) Further investigations must be carried for HIV (4) and Diabetes Mellitus before diagnosis. Diabetes Mellitus increases the risk of oral pathology including

acute infections, periodontitis, and possibly premalignant and malignant lesions. (5) The treatment of oral complications of Diabetes Mellitus may decrease morbidity. Hence oral medicine physicians should take proper history with medication and discuss the treatment plan with the endocrinologist for the benefit of the patient. Here is a case showing the relationship between Median Rhomboid glossitis and diabetes.

Case report

A 60-year-old male reported to the Oral Medicine and Radiology department with a chief complaint of burning sensation on the posterior part of the tongue on having spicy food for the last 3 months. Patient also wanted replacement of complete denture. Patient was a denture wearer for 1 and half years. Patient also gave a history of broken denture for 9 months and history of full mouth extraction 2 years back. Patient was unaware of the tongue lesion on the posterior part of the tongue and palate. There were no aggravating and relieving factors associated with the lesion. There was no history of pan chewing and smoking. Patient was diagnosed with Diabetes 3 years back and was on medication. There was no history of allergies and was on Glyburide 2.5mg once daily. Patient used to clean his dental arches twice weekly with no use of tongue cleaner. There was no history of fever and cold.

On general physical examination, the patient was moderately built, cooperative and well oriented to time, place and person and his vital signs were within normal limits. There was no facial asymmetry and extraoral deformity noted. (Figure 1)

Intra-oral examination revealed edentulous maxillary and mandibular arches with proper ridges. On tongue examination, smooth flat depapillated lesion present on the posterior midline of dorsum of the tongue anterior to foramen caecum. The lesion was rhomboid in shape with ill-defined margins measuring about 2.5x2 cm. (Figure 2) On palpation the lesion was non tender, non-indurated, and afebrile. The anterior part of the tongue showed fissures with coating. Erythematous area was present measuring about 1.5x2 cm at the junction of hard and soft palate. There was presence of 4-5 tiny red spots just opposite to the rhomboid lesion of the dorsum of the tongue. (Figure 3) On swallowing the posterior part of the tongue touches the junction of hard and soft palate. On palpation the lesion was non tender with no bleeding.

Based on the clinical presentation of burning sensation and depapillation area at the posterior midline of the tongue, a provisional diagnosis of Median Rhomboid glossitis on tongue and associated kissing lesion on palate was given.

Patient was advised for laboratory tests including bleeding and clotting test, hemoglobin, blood sugar levels, HIV and Candida swab of lesion associated from the tongue and palate. Patient was investigated for HIV which was non-reactive. The laboratory findings were within normal limits except for blood sugar levels. Fasting blood sugar, OGTT and Hb1Ac levels were 180 mg/dl,200 mg/dl and 6.5% respectively. Patient was sent to the endocrinologist for the treatment modification of Diabetes.

The samples were collected using sterile cotton swabs from the tongue lesion and palate lesion. The swabs were collected and carried to Basic Science Research Laboratory at KLE Dental College, Belagavi for analysis of Candida growth. The samples were inoculated on Sabouraud's dextrose agar (SDA) media for 48-72 hours at 37˚C. The white colored colonies confirmed the presence of candida at tongue lesion and palate lesion.

Patient was advised to clean dental arches and oral cavity twice daily. Patient was advised to go for complete denture once the lesion gets resolved. Tablet Clogen

(10mg) was started once daily for 7 days. Topical application for Candid mouth paint two times daily for 7 days. Patient was advised to apply Candid mouth paint after having food so that it remains on the lesion for at least 10 minutes. Patient was recalled after 7 days. Patient reported after 10 days with 25% reduction of burning sensation and there was no reduction in the size of lesion on the palate. Patient was advised to maintain oral hygiene and to continue the same drug for another week and to report back after 7 days. Patient reported after 7 days with 50% reduction in burning sensation and 25% reduction of size of lesion on palate. Patient was advised to stop Tablet Clogen (10 mg) and continue Candid mouth paint twice daily for 7 days. Patient reported after 10 days with 50% reduction in burning sensation and complete remission of palate lesion. Patient was advised to continue Candid mouth paint twice daily for 7 days. Patient reported after 7 days with 100% reduction of burning sensation. Patient was advised to go ahead with the complete denture and to maintain oral hygiene. Patient was under follow up and there was no ulceration noted with the lesion after the treatment.

Discussion

Median rhomboid glossitis (MRG) is defined as the central papillary atrophy of the tongue, and it affects 0.01%–1.0% of the population. (1) Farman suggested that an impaired blood supply to the mid-dorsal surface of the tongue might predispose this area to the development of candidiasis and the loss of filiform papillae. (6) Arendorf and Walker stated that the tongue is the primary oral reservoir for Candida, so the midline of the tongue is suitable for intense overgrowth of Candida organisms. (7) Diagnosis of Median Rhomboid Glossitis is clinical as the characteristic well circumscribed, rhomboid in shape and smooth present in posterior midline dorsum of the tongue. The presence of Candida is identified from the lesion by laboratory investigation of Culture on Sabouraud's dextrose agar. According to previous literature, adult males are more commonly affected when compared to females. The predisposing factors include Diabetes, candida infections, smoking and trauma. In the present case a diabetic male is affected with this lesion.

Mustafa Goregen et al 2011 stated denture wearing as risk factor for oral candidiasis was invalid for Median Rhomboid Glossitis. (3) He explained diabetes as risk factor of Median Rhomboid Glossitis which is compatible with the present study. Farman and Nutt revealed that there was no association between MRG and denture wearing. (8) J Ghabanchi et al 2011 stated the prevalence of Median Rhomboid Glossitis in diabetic patients was more when compared to normal individuals. (9) Guggenheimer et al 2000 pointed out that MRG is one of the most observed oral candidal infections in insulin-dependent diabetes mellitus patients. (10) Hence proper diagnosis and treatment of these lesions is essential.

The undiagnosed diabetes and uncontrolled diabetes may have oral complications including Median Rhomboid Glossitis. In the present case Oral medicine physician has a role in treatment of Median Rhomboid Glossitis and explaining the oral complications of Diabetes. The patient was counseled about the control of Diabetes and was referred to Endocrinologist for the treatment modification of Diabetes.

Conclusion

The oral medicine physician must be aware of common oral complications of systemic diseases and necessary investigations should be performed. They should also coordinate with other specialties for the control of systemic diseases which will be helpful in improving the quality of life of patients.

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Legends Figure

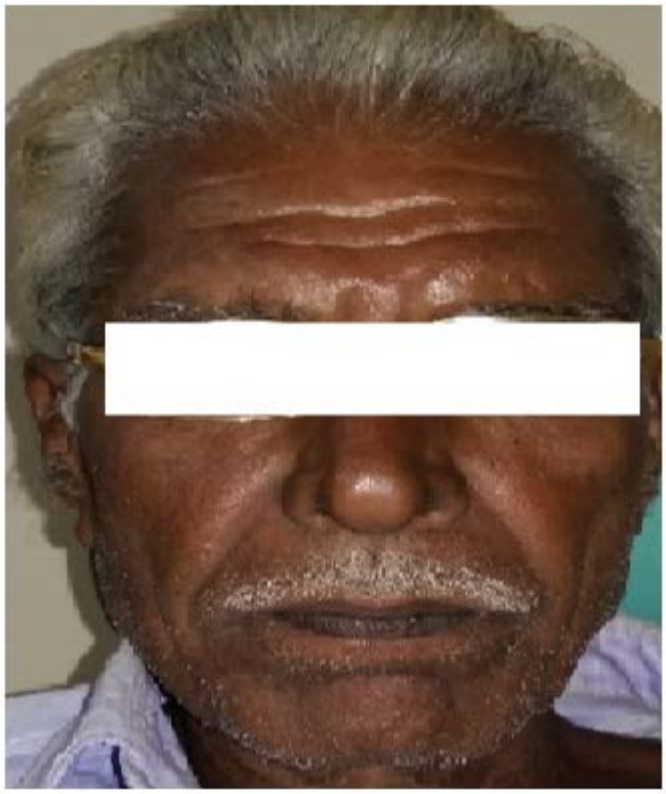

Figure 1**:** Extraoral profile of patient

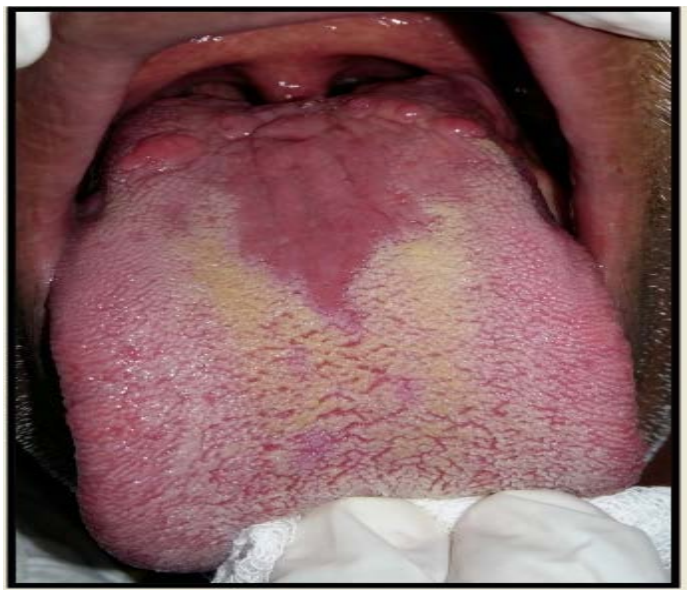

Figure 2**:** Median Rhomboid Glossitis (MRG) on posterior midline of dorsum of tongue

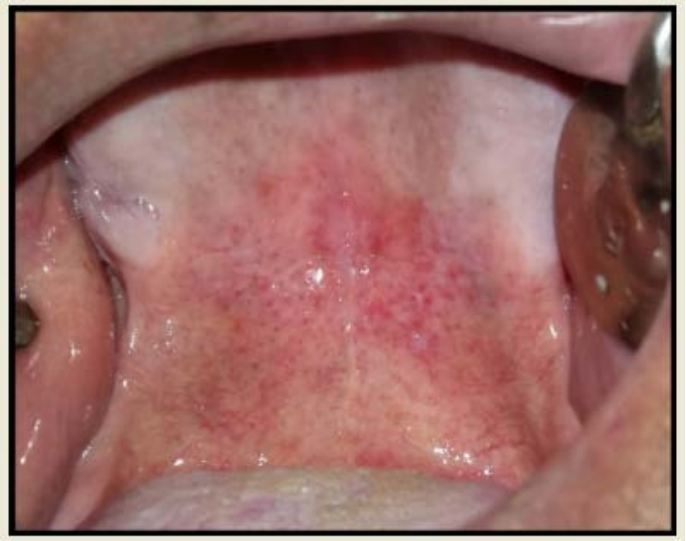

Figure 3: MRG associated with Kissing lesion on palate