

## CLINICAL IMAGE

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# Median rhomboid glossitis associated with fungi

Takeshi Onda, Kamichika Hayashi, Akira Katakura

## CASE REPORT

A 50-year-old man without relevant medical history complained of a burning sensation on the tongue. Intraoral examination revealed erythema on the central dorsum of the tongue (Figure 1). Microscopic examination of the smear showed fungal hyphae. We made a diagnosis of median rhomboid glossitis (MRG) based on the characteristic gross findings, site of occurrence, and presence of fungi. The patient was prescribed an antifungal agent and instructed to maintain oral hygiene. Itraconazole (100 mg/day) was administered orally for 14 days. After one month, the mucosa regained its normal texture and the subjective symptoms were alleviated.

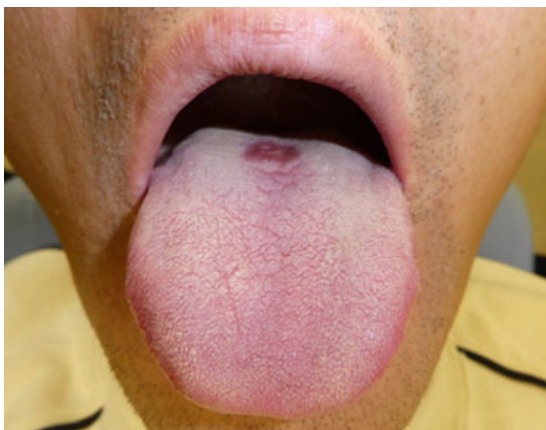


Figure 1: Oral findings at the first visit: A circular red lesion with a well-defined border is observed behind the center of the dorsum of the tongue.

## DISCUSSION

Median rhomboid glossitis is usually characterized by atrophy of the papillae just anterior to the terminal sulcus of tongue [1]. Most cases are asymptomatic, but some patients may complain of persistent pain, burning, and pruritus [1]. There are no objective diagnostic criteria for this disease and diagnosis relies on visual identification. Although the etiology of this disease is unclear, it has been suggested to be associated with smoking, poor denture fitting, immunosuppressants, diabetes, and broad-spectrum antibiotics [2]. Median rhomboid glossitis has previously been described as a congenital abnormality of the tongue that develops due to failure of the tuberculum impar to fuse with the two lingual swellings during embryogenesis with a resultant rhomboid depapillated area [3]. Recently, its occurrence has been thought to be associated with fungal infection [3, 4]. In general, this condition requires no treatment; however, if the fungal test results are positive, antifungal agents are administered and progression of the lesion is observed. Malignancy should be ruled out through biopsy if MRG is associated with erosion, vitiligo, and/or proliferative changes [5]. In the present case, fungus was detected in a sample collected by scraping the back of the tongue, and MRG associated with fungus was diagnosed. Good progress was made with the use of antifungal agents.

## CONCLUSION

Median rhomboid glossitis is a noninflammatory disease rather than a true inflammatory condition. It is thought to be due to residual unpaired nodules that normally atrophy during fetal life. However, since the disease is less common in children, other causes have been postulated. Recently, fungal infection has been considered a possible cause. There are often no subjective symptoms, but redness and pain due to secondary inflammation may be present. Generally, no treatment is required. Symptomatic treatment is given when secondary inflammation occurs. If fungal infection is a contributing factor, antifungal agents are used.

**Keywords:** Fungi, Glottis, Hyphae, Tongue

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### Author Contributions

Takeshi Onda – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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### Conflict of Interest

Authors declare no conflict of interest.

### Data Availability

All relevant data are within the paper and its Supporting Information files.

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