What are the best treatments for benign migratory glossitis?

Morteza Banakar[1]

A Commentary on

de Campos W G, Esteves C V, Fernandes L G, Domaneschi C, Júnior C A L.

Treatment of symptomatic benign migratory glossitis: a systematic review. *Clin Oral Investig* 2018; **22:** 2487–2493. DOI: 10.1007/s00784-018-2553-4. PubMed PMID: 29982968.

Practice points

- A good history and evaluation are necessary to determine the approach to BMG.
- Careful consideration of atypical cases such as children is needed.

Abstract

Data sources PubMed, The Cochrane Library, Embase, Science Direct, Scopus, Web of Science and Google Scholar databases.

Study selection English language studies reporting on treatment of symptomatic benign migratory glossitis (BMG) in children and adults were considered.

Data extraction and synthesis Two reviewers independently selected studies with a single author extracting data subsequently verified by a second reviewer. A third reviewer was available to resolve discrepancies. A narrative summary of the findings was presented.

Results Eleven studies involving a total of 150 patients contributed to the review. A majority (eight) were considered to be of very low quality, one of low quality, one of moderate quality and one of high quality. A range of treatments were employed, the most common being triamcinolone acetonide 0.1% (n = 2), topical tacrolimus 0.1% (n = 2), topical diphenhydramine (n = 2), and nutritional supplements (n = 2)

Conclusions There is substantial heterogeneity in the available studies providing very low-quality evidence for the treatment of symptomatic benign migratory glossitis.

Commentary

Benign migratory glossitis (geographic tongue) as a tongue condition of unknown aetiology has attracted the attention of researchers looking for a cure. The most common sign of BMG is irregular erythematous patches but other signs and symptoms including white coloured keratotic areas on the tongue and intense pain are reported.

A number of reports show a close relationship between some of the genes on chromosome 6 and BMG which lend support to a hereditary link.[1,2] Food supplements (multivitamins and zinc supplementation) have been used as remedies although BMG is often a self-resolving condition. But, a number of treatments have been reported for BMG and they are addressed in the current review.

This review has considered the most important clinical treatment procedures of BMG that have been introduced as highly-potent methods for complete curing of BMG disease. For this, the nature of BMG has been considered from the superficial and physiological aspects. Although BMG has genetic links, many environmental and external factors can influence the outbreak of this illness. This disease has some characteristics such as being non-transmittable and can be caused because of deficiency of B vitamin groups in the body. However, in some cases, prescription multivitamins and antifungal capsules have not shown any demulcent effect. Commonly, for the patients with BMG disease, a general test to understand the nutritional deficiencies is important. In particular, levels of B12 vitamin and albumin are important. Although the nutritional deficiencies have attracted the attention of specialists as an important diagnostic method for BMG, this issue is not certain for all patients. No explicit relationship has been reported between nutritional imbalance, symptoms of diabetes mellitus, inheritance, Reiter's syndrome etc, and BMG.[2]

Some of the external conditions that can intensify BMG are: stress; spicy and sour foods; hormonal changes; and in some cases asthma. But from the histopathological aspects, the white painful areas can be caused because of the subepithelial neutrophil infiltrates and microabscesses, interepithelial oedema, glycogen deposits in epithelial cells, exfoliation of necrotic cells in the surface layer and leucocyte invasion into the epithelial layer.[3]

For diagnosis of BMG disease, different methods have been reported that can be included with routine laboratory tests of the blood count: C-reactive proteins levels; vitamin levels; and glucose level etc. Other potential infections such as candidiasis, psoriasis, herpes simplex virus should also be excluded during diagnosis of BMG.[4]

Basically, patients suffering from BMG illness don't normally need any complex remedial process because of the BMG's self-resolving nature.[5] However, symptomatic treatment procedure of BMG has routinely been with acetaminophens, topical drugs, steroids and antihistamines.[6,7] Unless the differential diagnosis between the BMG and mouth cancer is difficult, the complex treatments are not necessary.[8] Also in some urgent BMG cases vitamin A therapy can be used as a treatment procedure.[9,10,11]

As mentioned above and according to the results that were obtained from the review article, a unique and reliable treatment procedure for BMG has been not yet been achieved. BMG may result from a number of different diseases so the treatment approach should be based on a systematic condition of the

GRADE rating 

patients. This review only considered the drug-based treatments, however, as noted, a wide range of other treatment approaches can be used as a contemporary remedial method for this condition. As a result of this review we can also include a broad range of drug-based treatments.

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Address for commentary

[1]School of Dentistry, Shiraz University of Medical Sciences, Shiraz, Iran. Email: dr.mbanakar@gmail.com

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