



## Burning Mouth Syndrome and Treatment with Paroxetine: Case Report

Ribarić SP<sup>1\*</sup>, Pršo IB<sup>2</sup>, Hero ED<sup>3</sup>, Urek MM<sup>1</sup> and Glažar I<sup>1</sup>

<sup>1</sup>Department of Oral Medicine and Periodontology, School of Dentistry, Medical Faculty, University of Rijeka, Croatia

<sup>2</sup>Department of Endodontics and Restorative Dentistry, Medical faculty, University of Rijeka, Croatia

<sup>3</sup>Department of Psychiatry, Medical Faculty, University of Rijeka, Croatia

### Abstract

Burning mouth syndrome is characterized by a burning sensation in the tongue or other oral sites, usually in the absence of clinical and laboratory findings. BMS often occurs with a range of medical and dental conditions, from nutritional deficiencies and menopause to dry mouth and allergies. The treatment of burning mouth syndrome is usually directed at its symptoms. Studies generally support the use of low dosages of clonazepam, clordiazepoxide and tricyclic antidepressants. This report presents the case of a 55-year-old woman presented to the clinic with burning mouth symptoms. Clinical and laboratory evaluations allowed us to make a diagnosis of burning mouth syndrome. Because she suffered from depression we consulted a psychiatrist and initiated treatment with paroxetine (20 mg/day). After two weeks the patient reported a 20% improvement (a decrease from seven to five on visual analogical scale). After six weeks of treatment the burning symptoms disappeared.

**Keywords:** Burning mouth syndrome; Paroxetine

### Introduction

Burning mouth syndrome (BMS) is characterized by a continuous, painful burning sensation in a clinically normal appearing oral mucosa. Affected patients often present with multiple oral complaints, including burning, dryness and taste alterations. The etiology of BMS remains unknown, although a number of local, systemic and psychological factors have been proposed as being of etiopathogenic importance [1].

According to associated etiologies, BMS may be divided into primary and secondary types. Primary type includes idiopathic, non-neuropathic BMS. Burning mouth sensations (formerly, secondary BMS) are associated with established organic/therapeutic-related etiologies (e.g., oral cavity disorders, including oral local neuropathy, systemic disorders, nutritional deficiencies, drug-induced, neurological and psychiatric abnormalities) [2]. The treatment of burning mouth syndrome is usually directed at its symptoms. Studies generally support the use of low dosages of clonazepam [3], clordiazepoxide [4] and tricyclic antidepressants [5]. A potential noninvasive treatment for BMS patients is low level laser therapy (LLLT). In recent studies, many authors have reported significant pain reduction with LLLT in painful stomatitis and severe pain in patients submitted to hematopoietic stem cell transplantation [6]. Although a large variety of drugs, medications, and miscellaneous treatments has been proposed in BMS, the treatment management of this syndrome is still not satisfactory, and there is no definitive cure [7].

### Case Report

A 55-year-old white woman presented to the clinic with burning mouth symptoms. The burning was of moderate intensity (7 on a 10 point visual analogical scale), worsening by the end of the day. She did not report any worsening local factor associated with worsening of the burning. She reported that she suffers from depression but she was never treated by a psychiatrist. She also reported a xerostomia. We measured the salivary flow rate but the unstimulated saliva was within normal limits.

The intraoral inspection was normal. She used wear superior and inferior partial denture both in good conditions. She had no caries or periodontal disease in her teeth. X-ray exams were performed

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#### \*Correspondence:

Pezelj-Ribarić Sonja, Department of Oral Medicine and Periodontology, University of Rijeka, Croatia,  
E-mail: sonja.pezelj-ribaric@medri.uniri.hr

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without alterations. Blood analysis was performed and blood routine were within normal limits.

Clinical and laboratory evaluations allowed us to make a diagnosis of burning mouth syndrome. Because she suffered from depression we consulted a psychiatrist and initiated treatment with paroxetine (20 mg/day).

After two week the patient reported a 20% improvement (a decrease from seven to five on visual analogical scale). After six weeks of treatment the burning symptoms disappeared. She did not report side effects. The patients was followed for six months and she remains pain free.

## Discussion

The etiology of BMS remains unknown, although a number of local, systemic and psychological factors have been proposed as being of etiopathogenic importance. However, these conditions have not been consistently linked to the syndrome, and their treatment has had little impact on burning mouth symptoms. In more than one half of the patients with burning mouth syndrome, the onset of pain is spontaneous, with no identifiable precipitating factor. Approximately one third of the patients relate onset time to a dental procedure, recent illness or medication course. Some anxiolytics has been studied for the treatment of BMS and has demonstrated mild to moderate improvement in this patient [8]. The beneficial effects of tricyclic antidepressants in decreasing chronic pain indicate that, in low dosages, these agents may act as analgesics [9]. The proposed pharmacological protocols have not consistently proved to be predictable and effective in all BMS subjects.

## Conclusion

BMS must be considered as an exclusion diagnosis in which a dental or medical cause has been excluded. The clinically normal appearance of the oral mucosa, which contrasts with patients pronounced complaints, and the time criterion constitute important factors in differential diagnosis [10].

Following treatment with paroxetine demonstrated significant symptomatic improvement, but the therapist has to be very careful regarding this kind of therapy in order to avoid possible complications.

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