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A case report of burning mouth syndrome: A diagnostic dilemma

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ABSTRACT

Oral dysaesthesia syndrome called burning mouth syndrome (BMS) causes chronic pain in the orofacial region without presence of any of the detectable organic causes. Common features of BMS are burning sensation in the mouth, xerostomia, dysgeusia, etc. These symptoms ideally show a diurnal pattern, were they are less in the morning and worsen as the day progresses and classically subside at the night time. BMS have multifactorial etiology. This report describes a case of burning mouth syndrome in a 60 year old female patient.

Keywords: Burning Mouth Syndrome, Xerostomia, Dysgeusia

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INTRODUCTION

The chronic pain disorder burning mouth syndrome (BMS) is characterized by burning, stinging, and/or itching of the oral cavity in the absence of any organic disease. It usually lasts for at least 4 to 6 months and commonly involves the tongue with or without extension to the lips and oral mucosa. BMS is most often accompanied by dysgeusia and xerostomia. Onset of BMS is spontaneous and the syndrome commonly has a predisposition to peri-/postmenopausal women. Its secondary form is associated with a variety of conditions like thyroid disease, oral infections, psychiatric illnesses, drug use, vitamin/mineral deficiencies, dental treatment, and others.[1,2]

Different oral sites can be affected such as the lips, palate and tongue. The tongue is the commonest site for the burning sensations in the oral cavity.[3]

Clinical treatment is usually complex and there is no uniform management protocol. In each case, both the psychological and physiological symptom components must be addressed. The acceptance of psychological factors by the patient is often an important aspect of BMS treatment, but this in itself may present a challenging situation in clinical condition.[4] Here we are presenting a case report of the burning mouth syndrome in a 60 year old female patient.

CASE REPORT

A 60 year old female patient reported with a complaint of burning sensation in the mouth especially in the anterior part of the tongue since 6 to 8 months. History had revealed that the patient was having burning sensation throughout the day with varied pain intensity. The pain initiates with the beginning of the day and gradually increases as the day progresses. The pain was aggravated during the night and causing great discomfort to the patient resulting at sometimes in insomnia. The patient was not able to eat food and sometimes restricts herself on soft diet. Patient had attained menopause 4 to 6 years ago and had post-menopausal mood fluctuations. In her history the patient also received steroid interphalangeal injections 6 months back for the treatment of osteoarthritis. Based on the clinical

criteria this patient was diagnosed as having burning mouth syndrome.

DISCUSSION

BMS was first described in mid nineteenth century and further characterized in the early twentieth century by Butlin and Oppenheim as glossodynia. Later, BMS has been referred to as glossopyrosis, sore tongue, oral dysesthesia, stomatodynia, and stomatopyrosis. It was categorized first as a distinct disease in 2004 by the International Headache Society and defined primary BMS as "intraoral burning sensation in patient for which no other medical or dental cause is present". Recent diagnostic features consist of daily persistent pain or burning sensation in the mouth with clinically normal oral mucosa after exclusion of other local and systemic diseases.[1]

Burning mouth is a condition that has a burning sensation in the oral cavity and on clinical examination has normal oral mucosa; these burning sensations are termed as burning mouth syndrome. Various sites in the oral cavity can be affected and the commonest one being the tongue. The burning sensation has been found to be of moderate or severe intensity and can vary in the day.[5]

BMS is classified under the general heading of idiopathic oral dysaesthesias and usually causes chronic orofacial pain as a disturbance in oral sensation.[4]

In nearly one half of patients, the onset of pain is spontaneous, with no identifiable precipitating factor and approximately one third of patients has time of onset to other reasons like a dental procedure, recent illness or medication course (including antibiotic therapy).[6,7]

The importance of taste in the symptoms or diagnosis of the burning mouth syndrome is not clear. Various recent studies had shown the possible relationship between BMS and taste activity. The patients having enhanced ability to detect taste sensations are called as "supertasters". These supertasters have increased chances to be affected by the BMS, as they are having increased density of taste buds. These taste buds are surrounded by a basket-like collection of the neurons of pain of the trigeminal nerve.[6]

The psychiatric aspect of BMS is also important. BMS and depression, cancerophobia, hypochondria, increased anxiety and emotional instability had also shown some relationship. The commonest diagnosis related with BMS is depression, at second place are the anxiety disorders and sleep disorders are also frequently found. These conditions triggering factors of symptoms of the BMS.[8]

Approximately 90% of female patients in BMS in various research studies have been post-menopausal, having frequency of onset reported from 3 years before to 12 years after menopause. In these patients systemic and topical hormonal replacement therapy has been found to be ineffective.[9,10]

Classification:

Based on etiologies:-

1) Primary type: - Idiopathic, non-neuropathic BMS.
2) Secondary:- Burning mouth sensations are associated with established organic/therapeutic-related etiologies (e.g., oral cavity disorders, including oral local neuropathy, nutritional deficiencies, systemic disorders, drug-induced, psychiatric and neurological abnormalities).[11,12]

Based on the daily variation of the symptoms:-

1) Type 1 BMS (35%):- characterized by daily pain that is not present on awakening but progresses throughout the day with the greatest problems occurring in the evening hours.
2) Type 2 BMS (55%) patients awake with a constant daily pain.
3) Type 3 BMS (10%) patients have intermittent pain with symptom-free intervals and the pain occurs in unusual sites, such as the buccal mucosa, floor of mouth, and throat.[13]

Diagnosis of the BMS is mainly based on history of the patient and clinical features like sudden or intermittent onset of pain, bilateral pain, increase in

pain sensation during day, decrease in pain sensation with eating or sleeping and importantly presence of normal laboratory findings.[9]

There is no single uniformly effective management for BMS. These patients generally receive medications for chronic pain, based on antidepressants, benzodiazepines and several other local and systemic therapies.[14]

CONCLUSION

BMS is an oral dysaesthesia condition occurring in females and a complicated condition to treat. Various complex interacting etiologies are put forward for this condition with the psychological features being a prime cause. A standard management protocol is still lacking to treat such patients and both the physiological and psychological aspects must be kept in mind. Dental practitioners should understand the etiology at an early stage and should manage the patient effectively.

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