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INCIDENCE OF BURNING MOUTH SYNDROME IN GENERAL POPULATION OF MULTAN

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Abstract:

It is a persistent and unmanageable disorder related to the mouth and face. It is usually described as scalding and tingling feeling like burning in the mouth. Middle aged and elderly woman that have hormonal changes or psychological disorders are most affected with this syndrome. Other symptoms include: sensation of dry mouth with increased thirst, taste changes in your Mouth such as bitter or metallic taste, or sometimes loss of taste. This disease is often of multistep sources, sometimes it is functional disorder and its etiology is still unclear. There is No specific treatment for this ailment yet. Most of the treatment includes use of medicines that is unsatisfactory. An associative and fundamental outlook is required for better management of patients. The main cause of writing this article is to explain its analysts, taking of medical history, categorization, symptoms, diagnosis and its management

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INTRODUCTION:

Dentist will deal with difficulty if a patient complains of burning sensation in oral cavity. This state gets even poor if it Co- occur with pain. Pain is the highly unpleasant physical sensation caused by illness or injury that harm human life. Burning mouth syndrome, is a persistent and uncontrollable ailment that mainly influence the middle or old age women. They are basically signalized by stinging or burning feeling in oral mucosa in the absence of living cause when physical examination is done. Due to the difference in the indications a universally accepted definition of this disease is still unknown.

International association for the study of pain defines this ailment as " A distinctive nosologically entity characterised by unremitting oral burning or similar pain in the absence of detectable mucosal changes.

This condition is referred by variety of names such as glossopyrosis, dysaethesia, orodymia, burning tongue, stomatopyrosis or burning tongue syndrome etc. The use of any different terminologies leads to confusion in medical treatment and scientific publication. Patients complaining of burning pain of oral mucosa preferably on tongue co-occurring with any other sensory disorders such as dry mouth, altered taste sensation are thought to be affected by burning mouth syndrome. This condition is sometimes organic disorder in nature and its pathological process remains unclear so far.

Due to the lack of suitable and compatible classification system, indicative standard and their consciousness among general and cosmetic dentists, it is hard to establish its true acceptance. Most of the writers fail to differentiate between ailment and indications as such. The popularity of burning mouth syndrome that is reported from various international studies ranges from: 0.6% to 15% respectively. This syndrome usually affects middle-aged or elderly individuals with and age range of 38 to 78 years showing that its popularity increases with age in both men and women. 3:1 is the ratio between females and male. As the syndrome is not yet defined, these gender differences are explained on the basis of biological, psychological and sociocultural factors.

The chances of this syndrome increase 12 to 18% in women with peri- and post- menopause. In children and teenagers (under 30 years) this condition is extremely rare and never been reported.

METHODS:

Clinical manifestations are always diverse and variable, and they are not constant at all. Patient found difficulty in describing the sensations they perceive. The term BMS implies to an idiopathic condition characterised by a continuous burning sensation of the mucosa of the mouth, typically involving the tongue, with or without extensions to the lips and oral mucosa. The onset of pain is unprompted and bilateral with no apparent symptoms. Pain can be severe with time that may be felt within mucosa and it will continue for at least 6 months. In some patients it can be the reason of poor quality of life when pain alters the sleep pattern. It can lead to depression, anxiety, less desire to socialize etc.

Many patients also experience taste changes most commonly bitter, metallic or sometimes both. Disturbance of sensory modalities of small diameter afferent fibers could be the cause of this taste disturbance. Many patients complain of dry mouth. This could be the adverse effects of antihistamines, diuretic, anticholinergic or psychotropic drugs. In patients suffering from burning mouth syndrome, changes in the quantity and quality of saliva have been observed many times.

Sometime the patients also have nonspecific health complains like headache, dizziness and psychiatric disorder.

RESULTS:

To patients burning mouth syndrome is a frustrating and painful condition. The exact cause of burning mouth syndrome is of multi-origin or idiopathic and is very difficult to pinpoint. Burning mouth syndrome has a complex Etiopathogenesis. Oral health care professionals find it a difficult task to manage burning mouth syndrome. For the better management of burning mouth syndrome a thorough understanding of etiology and psychological impact of this disorder is required.

Burning mouth syndrome can occur both because of local and systemic factors. It's a multifactorial disorder. Exact cause of the disease should be known before treatment. Taking good history of patient can help in diagnosis. Topical medication or systemic therapies both are found effective in some patients.

DISCUSSION:

Due to the changes in symptoms and complex clinical behaviour, the exact cause of the burning mouth syndrome is still unknown. Its etiology is thought to be multifactorial. That usually involves interaction

between neurophysiological mechanisms and psychological factors.

Several local, systemic and psychological factors have been found related to BMS. They should be considered as important conditions in the treatment of bms.

Some of the reported LOCAL FACTORS includes denture acrylic allergies, para functional habits like clenching, taste dysfunction, mechanical factors, dental restorations, allergic foods, infectious diseases (bacterial, fungal, viral)

SYSTEMIC FACTORS include CNS disorders, salivary gland disorders, hormonal deficiencies, neurological disorders, medications or endocrine disorders.

Possible theories behind the causes of burning mouth syndrome are as follows:

1. there could be an abnormality in interaction between the functions of facial or trigeminal nerves. Some individual is listed supertasters according to this theory. Most of them are females. Because of high density of fungiform papilla present on anterior aspect of tongue. Such type of women is at risk of developing severe pain.
2. another reason could be sensory dysfunction that is usually associated with small or large fiber neuropathy. Altered sensor threshold or blink reflex reactions is found in almost 90% of patients suffering from bms. Axonal degeneration of epithelial and papillary nerve fibers in the effected epithelium of oral mucosa are found in microscopic observations.
3. alteration in the modulation of nociceptive processing that is usually centrally mediated. There is a reduction in the nigrostriatal dopaminergic system resulting in reduced central pain suppression in burning mouth syndrome individuals, this theory is based on this fact.
4. there could be abnormalities in oral blood flow or autonomic innervation.
5. alteration of gonadal, adrenal and neuroactive steroid levels in skin and oral mucosa are due to chronic anxiety or stress.

Before arriving the diagnosis of bms following steps should be performed:

- Quantify the sensation of pain by taking a thorough and comprehensive history.
- rule out local and systemic causes through clinical examination of oral mucosa.
- knowledge and information on psychological wellbeing or current psychosocial stresses.
- viral, fungal infections can be confirmed by taking oral cultures
- patch test can be performed on allergic individuals
- studies on Gastric reflux.
- Nutritional, hormonal, autoimmune diseases can be ruled out by hematological test.

Acquiring patient trust and reassurance is also important for its treatment. Investigator should have a knowledge about patient's personal, medical or dental histories and a careful interpretation of data obtained from laboratory investigations. If any of the local or systemic factors are evident than an effort should be made to treat these factors.

Thorough examination of oral mucosa should be done in these patients. Factors involved in pain such as onset, quality, persistence, intensity, duration, relieving factors are important to know for treatment. This pain factor information would be helpful to differentiate bms from other orofacial pain disorders. Not a single treatment or procedure can result in complete remission of all symptoms because burning mouth syndrome is a multifactorial disease.

Discussion of three topics namely topical medications, systemic medications and behavioral interactions can be helpful in management of burning mouth syndrome. Medications used to treat bms are analgesics, antidepressants, antifungal, antibacterial, antihistamines, antipsychotics and vitamin/mineral/hormonal replacements.

Topical medications include Desensitizing agent i.e capsaicin (0.025 %cream) is topically applied in burning mouth syndrome to inhibit substance P. Sometimes it's use limited in patients with reduced tolerance and increased toxicity. Rinsing with 0.15% benzylamine hydrochloride, 3 times a day can show an analgesic, anesthetic or antiinflammatory effect but shows inconsistent results. Some patients get relieved by rinsing mouth with Tabasco sauce with water. An agonist of gamma butyric acid receptors, clonazepam can be used 3 times a day for 14 days. It Has found success in some cases.

Lidocaine an anesthetic agent was tried by few patients and have not shown effective treatment. This may be due to the short duration of analgesic action. In some cases, 0.5ml aloe Vera gel at 70% using 3 times a day combines with tongue protector is found to be effective and reducing pain sensation of tongue.

Systemic therapies for treating burning mouth syndrome has varied outcome. Use of some tricyclic antidepressants such as desipramine, imipramine, nortriptyline is found useful in treating burning mouth syndrome. These drugs can worsen the situation in patients with dry mouth.

Sertraline, paroxetine for 8 weeks, duloxetine at a dose of 30-69mg/day result in significant improvement of oral burning sensation because these are dual action antidepressants. Some antipsychotics are proving to be effective and shows a better patient compliance when used in short duration. These includes amisulpride, levosulpiride at a dose of 50mg/day for 24 weeks.

Use of antioxidant i.e Alpha lipoic acid (ALA) at a dose of 600 mg /day, either alone or in combination for 2 months prevents nerve damage by free radicals and also regenerates other antioxidants such as vitamin C and E and also increase the intracellular levels of glutathione, and significantly lower reduces the symptoms in patients with idiopathic dysgeusia. Concomitant gastric protection medication must be advised in patients undergoing ALA therapy.

Minerals like iron, zinc, vitamin BC capsules, folic acid lower the mean serum homocysteine level and also boost up blood HB level and do complete remission of oral symptoms.

In peri- and post- menopausal women hormone replacement therapy (conjugated estrogen like Premarin, 0625 mg /day for 21 days and medroxyprogesterone acetate, 10mg/day from day 12 through day 21 for three consecutive cycles) can relieve oral burning and improve cytologic features. In some individuals cognitive behaviour therapy can be helpful. Some people have reported successful treatment of burning mouth syndrome by psychotherapy and psychopharmacotherapy.

CONCLUSION:

For the proper management of these patients Complex and multifactorial etiology of Bms necessitates systematic and interdisciplinary approach is required. Many drugs, treatment have been proposed for managing burning mouth syndrome but none of them is satisfactory or has a gold standard. Taking the correct clinical diagnosis of burning mouth syndrome is important for its management.

REFERENCES:

1. Merskey H, Bogduk N. Classification of Chronic Pain. 2nd ed. Seattle, WA: IASP Press; 1994. Descriptions of chronic pain syndromes and definitions of pain terms; p. 74. [Google Scholar]
2. Grinspan D, Fernández Blanco G, Allevato MA, Stengel FM. Burning mouth syndrome. Int J Dermatol. 1995;34:483–7. [PubMed] [Google Scholar]
3. Lamey PJ. Burning mouth syndrome. Dermatol Clin. 1996;14:339–54.
4. Scala A, Checchi L, Montevecchi M, Marini I, Giamberardino MA. Update on burning mouth syndrome: Overview and patient management. Crit Rev Oral Biol Med. 2003;14:275–91. [PubMed] [Google Scholar]
5. Zakrzewska JM, Hamlyn PJ. Facial pain. In: Crombie IK, editor. Epidemiology of Pain. Seattle, WA: IASP Press; 1999. pp. 175–82. [Google Scholar]
6. Grushka M. Clinical features of burning mouth syndrome. Oral Surg Oral Med Oral Pathol. 1987;63:30–6. [PubMed] [Google Scholar]
7. Sun A, Wu KM, Wang YP, Lin HP, Chen HM, Chiang CP. Burning mouth syndrome: A review and update. J Oral Pathol Med. 2013;42:649–55.
8. López-Jornet P, Camacho-Alonso F, AndujarMateos P, Sánchez-Siles M, Gómez-Garcia F. Burning mouth syndrome: An update. Med Oral Patol Oral Cir Bucal. 2010;15:e562–8. [PubMed] [Google Scholar]
9. Lamey PJ, Lewis MA. Oral medicine in practice: Orofacial pain. Br Dent J. 1989;167:384–9. [PubMed] [Google Scholar]
10. Jääskeläinen SK. Pathophysiology of primary burning mouth syndrome. Clin Neurophysiol. 2012;123:71–7. [PubMed] [Google Scholar]
11. Gorsky M, Silverman S, Jr, Chinn H. Clinical characteristics and management outcome in the burning mouth syndrome. An open study of 130 patients. Oral Surg Oral Med Oral Pathol. 1991;72:192–5. [PubMed] [Google Scholar]