Of Professional INTEREST

Burning Mouth Syndrome: What is it and how do you treat it?

By Lauren Levi, DMD

Characterized by a burning sensation of the oral mucosa often restricted to the dorsum of the tongue, burning mouth syndrome (BMS) usually presents spontaneously in tissues devoid of obvious gross pathology. BMS is often idiopathic in origin, but it may be due to an underlying systemic condition.

Prevalence

The literature indicates that BMS occurs in approximately 0.7-4% of the adults in the United States.[1-3] It presents more commonly in women than in men with an increased predilection for postmenopausal women.[3, 4]

What is BMS and What are the Signs and Symptoms?

The International Headache Society (IHS) defines BMS as "an intraoral burning or dysaesthetic sensation, recurring daily for more than 2 hours/day over more than 3 months, without clinical evident causative lesions.[4]" The diagnostic criteria include pain being felt superficially in the oral mucosa that has a burning quality. Additionally, clinical and examinations are unremarkable and reveal normal-appearing mucosa.[4] Although BMS most commonly affects the tongue, it may also present in other areas of the oral cavity, including the lips, but rarely affects the buccal mucosa or floor of the mouth.[1, 3] Patients with BMS often complain of dysgeusia, ageusia, paresthesia and xerostomia.[3] They also often exhibit anxiety and depression.[3]

Dr. Lauren Levi is a dentist with a focus in orofacial pain, dental sleep medicine and dental oncology based in Manhattan. She works in private practice as well as Mount Sinai and NYU.

Classifications

BMS is commonly classified into primary and secondary BMS. Primary BMS presents as a burning sensation intraorally in the absence of other diseases. Secondary BMS, by contrast, is associated with an underlying condition. Underlying conditions that may result in secondary BMS include a nutritional deficiency, fungal infection, allergic reaction, or an autoimmune condition. Additionally, secondary BMS may be caused by tissue trauma.[3]

Primary BMS

As previously mentioned, primary BMS presents in the absence of local and systemic conditions. Thus, diagnostic tests, such as imaging and cytology, for primary BMS will be negative. The etiology for primary BMS is unknown, but currently, it is believed to be a form of trigeminal neuropathy related to axonal degeneration.[3]

Secondary BMS

Secondary BMS is related to an underlying local or systemic condition. For example, fungal infections may present with oral burning and discomfort. In addition, medications implicated in hyposalivation may contribute a sensation of xerostomia and subsequent BMS. Angiotensin-converting enzyme (ACE) inhibitors have been associated with oral stomatitis. Beyond medications, nutritional deficiencies including vitamin B1 vitamin B6, vitamin B9, vitamin B12, zinc and iron are associated with symptoms consistent with BMS. Furthermore, autoimmune conditions, such as lichen planus, and geographic tongue, though usually painless, at times, may result in oral discomfort and symptoms consistent with BMS. Diabetes and hormonal changes are also believed to be associated with BMS.[3]

Diagnosing BMS

Diagnosing BMS can be challenging and frustrating for the oral healthcare clinician, because there is no definitive test for BMS. Specifically, given that primary BMS presents as a burning sensation in the absence of known local or systemic causes, diagnostic tests will be negative. Nonetheless, a thorough evaluation including oral cytologic smears for fungal infections may be valuable. A comprehensive history taking and examination is crucial to diagnosing BMS.[3]

Treatment and Management

Treatment first depends on diagnosis. Primary BMS is most commonly treated with topical clonazepam. Other medications that may be prescribed but are as commonly used include tricyclic antidepressants, gabapentin, alpha lipoic acid, trazodone and serotonin-norepinephrine reuptake inhibitors.[3] Secondary BMS treatment involves managing the underlying cause. Unfortunately, treatment for BMS is mostly palliative.[3]

References

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