

Working together: Effective interdisciplinary collaboration to identify desvenlafaxine-induced burning mouth syndrome.



John Weller MD, Megan Oswald DMD MD, George Laskar MD/PHD, Saad Khan DO FAPA
Mather Hospital, Northwell Health, Port Jefferson, NY

Background

Burning mouth syndrome (BMS) is a pain condition described as a burning or scalding sensation and often accompanied by oral xerostomia and dysgeusia that manifests in the absence of clinical or laboratory abnormalities. This pain syndrome has a poorly understood etiology and can potentially involve a complex interplay between psychological and physiological processes. It is thought to arise from local conditions such as periodontal disease and bruxism or systemic conditions like diabetes or adverse reactions to medication. With an estimated prevalence ranging from 0.1% to 3.9% and symptoms that can persist throughout the day and last up to years it is a condition that can negatively impact quality of life (McMillan R, 2016).

The Case

Here we present a case of a 50-year-old male patient who came to the out-patient psychiatry clinic. He had a past medical history of diabetes, hypertension, and seizures and past psychiatric history of severe depression in remission for several months with lurasidone 40mg, modafinil 300mg, and desvenlafaxine 200mg. Though the patient had achieved remission of his psychiatric symptoms, he also began to report burning mouth pain. Because his depression, which had been severely debilitating, had abated with this medication regimen other possible causes were first explored.

Electrophysiologic and rheumatologic studies were unremarkable as were blood work and dental examination. The patient's other medications of levetiracetam, losartan, HCTZ, rosuvastatin, metformin, aspirin, clonazepam, and tripeptide were also considered as they have been cited in the literature for potential causes of BMS. The patient however, had been on stable doses of these medications for at least a year before his symptoms began. Additionally, pharmacology consult felt that his somatic medications were unlikely the cause of his pain. The addition of pregabalin and pilocarpine gave partial relief but did not ameliorate his discomfort.

Finally, with close follow-up to ensure he did not have a reemergence of depression, his psychiatric medications were sequentially tapered and discontinued. A week after the last psychiatric medication, desvenlafaxine was discontinued, the patient reported abrupt and complete cessation of his burning mouth.

Discussion

Our findings of desvenlafaxine-induced BMS is consistent with other case reports implicating fluoxetine and venlafaxine as inciting agents of BMS (Raghavan, 2014). Interestingly, SSRI and SNRI medications are also considered possible therapies for BMS (Mohanty, 2020). Patient specific differential expression of serotonin receptors in the descending pain inhibitory system has been proposed to explain how serotonergic medications can paradoxically cause and prevent BMS (Nagamine, 2023). It was imperative to first rule out other causes of his pains as changing his psychiatric medications would put him at risk of reemergence of depression

Conclusion

This case of BMS highlights the importance of involving an interdisciplinary team of clinicians when tackling a rare condition that can have multiple possible etiologies. Additionally, it underscores the need for psychiatrists to systematically identify potential rare and debilitating adverse effects of commonly prescribed antidepressants.

Reference:

McMillan R, Forssell H, Buchanan JA, Glennly AM, Weldon JC, Zakrzewska JM. Interventions for treating BMS. Cochrane Database Syst Rev. 2016 Nov 18;11(11)
Mohanty, P., Bobrysheva, H., & Patel, A. (2020). The Treatment of Anxiety Disorder and MDD in a Patient with BMS. Int J Psychiatr Res, 3(5), 1-3.
Nagamine, Takahiko MD, PhD. Serotonin Paradox in Burning Mouth Syndrome. Journal of Clinical Psychopharmacology 43(2):p 188-189, 3/4 2023.
Raghavan SA, Puttaswamiah RN, Birur PN, Ramaswamy B, Sunny SP. Antidepressant-induced Burning Mouth Syndrome: A Unique Case. Korean J Pain. 2014 Jul;27(3):294-6.