

# Mouth on Fire: A Case of Burning Mouth Syndrome and its Relevance in Psychiatry

Kristin Bubel, M.D., Virginia O'Brien, M.D.

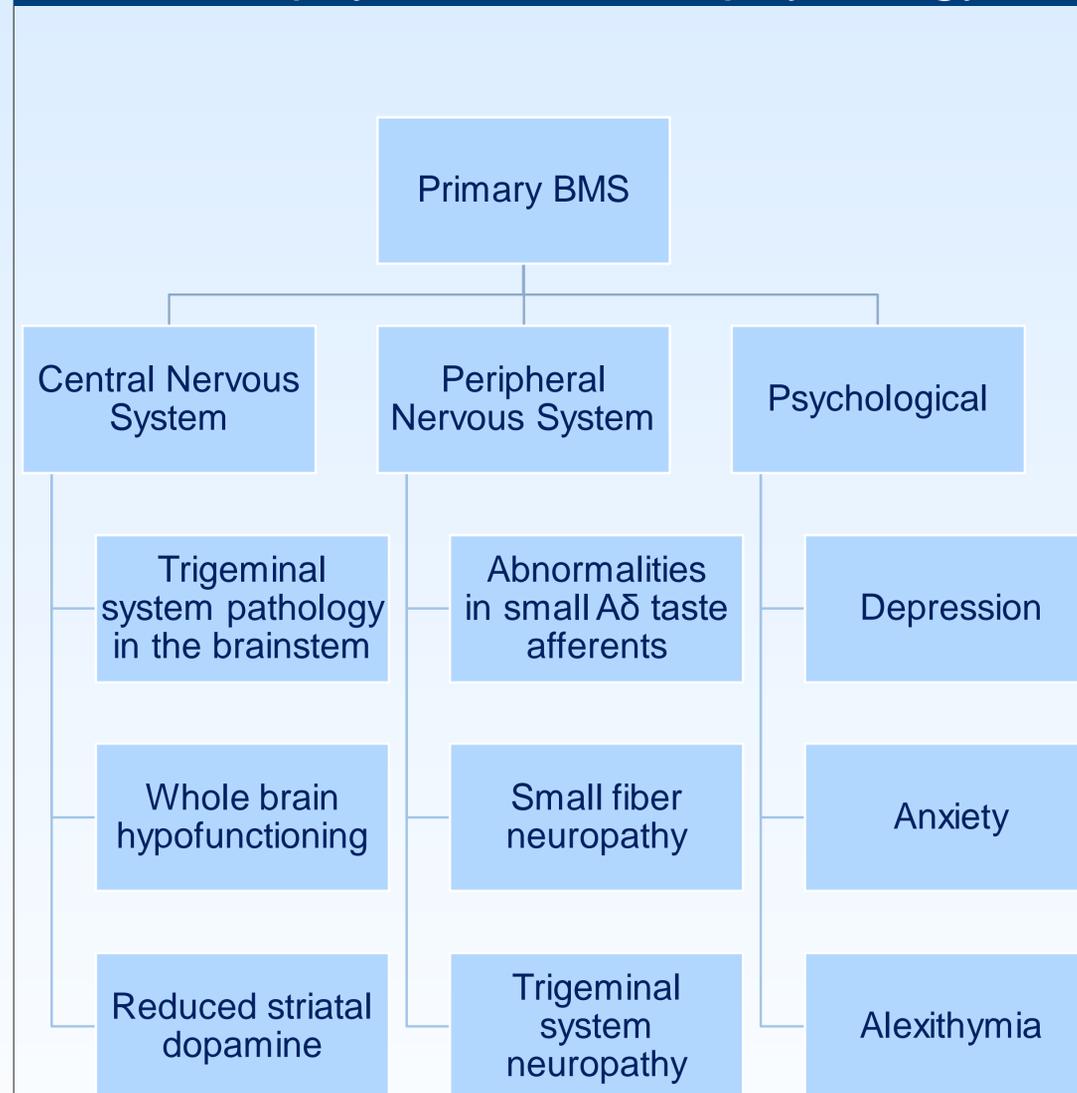
## Background

Burning Mouth Syndrome (BMS) is a complex pain condition of the oral cavity characterized by a burning sensation without clinical or laboratory abnormalities. It affects an estimated 0.1-3.9% of the general population. BMS can originate in the central nervous system or the peripheral nervous system and is frequently accompanied by depression, anxiety, and/or somatic symptom disorder. The overlap of pain, neurologic pathophysiology, mental health and impaired quality of life highlight the need for collaboration among specialists in its identification and treatment.

## Case

Our patient is a 48-year-old female whose burning mouth pain began in 2012. She underwent a complete physical exam and laboratory workup that did not reveal any abnormalities. From 2012-2014 she had numerous and frequent visits to the emergency department, her primary care provider, psychiatrists, and specialists for uncontrolled oral discomfort. She underwent two endoscopies and multiple medication trials, including antiepileptics, antidepressants, antipsychotics, antibiotics, antivirals, antifungals, antacids, topical analgesics, and mood stabilizers, with only mild transient improvement of symptoms. This culminated in psychiatric hospitalization for anxiety and suicidal ideation related to her ongoing oral pain. She was started on clonazepam and given more frequent follow up with her psychotherapist, which gradually led to a resolution of oral discomfort. Her symptoms remain in remission with psychotherapy and clonazepam.

## Neuropsychiatric Pathophysiology



## Discussion

Primary BMS is a diagnosis of exclusion with a poorly understood etiology. Abnormalities in the central and peripheral nervous systems along with psychiatric disorders have been implicated in its pathophysiology. Current treatments are directed at symptomatic relief with inconsistent short- and long-term results. There is some evidence for long-term benefit from psychotherapy, clonazepam, gabapentin, alpha lipoic acid, and capsaicin oral rinse. Given that BMS is often comorbid with depression and anxiety and is often managed with psychotropic medications, it is a condition consultation psychiatrists should be able to recognize and treat.

## Conclusions

BMS is a complex pain condition with an associated psychosomatic component, making it an important condition for consultation psychiatrists to be aware of. Though it remains a diagnostic and treatment challenge, better outcomes may be attained with collaboration among psychiatry, primary care, specialists, as well as with patient education and psychotherapy. Additional studies assessing long-term outcomes for treatments are needed to better understand and treat this disorder.

## References

1. Liu, Y. F., Kim, Y., Yoo, T., Han, P., & Inman, J. C. (2018). Burning mouth syndrome: a systematic review of treatments. *Oral diseases*, 24(3), 325–334. <https://doi.org/10.1111/odi.12660>
2. McMillan, R., Forssell, H., Buchanan, J. A., Glenny, A. M., Weldon, J. C., & Zakrzewska, J. M. (2016). Interventions for treating burning mouth syndrome. *The Cochrane database of systematic reviews*, 11(11), CD002779. <https://doi.org/10.1002/14651858.CD002779.pub3>
3. Noma, N., Watanabe, Y., Shimada, A., Usuda, S., Iida, T., Shimada, A., Tanaka, Y., Oono, Y., & Sasaki, K. (2020). Effects of cognitive behavioral therapy on orofacial pain conditions. *Journal of oral science*, 63(1), 4–7. <https://doi.org/10.2334/josnusd.20-0437>