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Increased medications in patients with burning mouth syndrome should not be overlooked, especially for older women

Yang-Zhou Huang

Zhou-Hui Wu

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Correspondence

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KEYWORDS
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We commended Chiang et al. for their timely and insightful article "Increased medications in the aged patients with burning mouth syndrome: A potentially overlooked risk factor".[1] Their rigorous case–control design convincingly demonstrates that polypharmacy—particularly minor polypharmacy (one–four medications)—is strongly associated with burning mouth syndrome (BMS), even after adjusting for age and sex. This work rightly shifts clinical attention from chronological aging to iatrogenic medication burden as a modifiable contributor, especially among elderly women frequently consulting stomatology, otorhinolaryngology, endocrinology, or geriatrics clinics for nonspecific symptoms. However, three critical issues warrant further discussion.

First, the study identified medication use as a risk factor but did not elucidate the underlying pathophysiological mechanisms. Fortunately, previous research by Chiang et al. reported that many commonly prescribed drugs, including antihypertensives, hypnotics, psychotropics, and gastroprotectors, induce xerostomia or alter the function of taste receptors, potentially triggering neuropathic oral pain.[2] Future research should use pharmacovigilance data or databases monitoring adverse drug reactions to clarify the causal pathways. Furthermore, the article did not highlight comparative studies between diabetic and nondiabetic patients with BMS. Future research could conduct comparative studies on medications, including comparing hypertensive and nonhypertensive patients with BMS or patients taking hypnotics versus those not taking them.

Second, challenges remain in diagnosis and differential diagnosis. Although BMS is an exclusionary diagnosis,[3] in busy clinical settings, clinicians often overlook comprehensive multidisciplinary consultation, particularly for pharmaceutical consultations, and misattribute symptoms to chronic pharyngitis, diabetes complications, anxiety, geriatric frailty syndrome, or menopause. In the future, the department of stomatology and pharmacy should promote the interdisciplinary collaboration of a BMS diagnosis and treatment center. Standardized treatment procedures should be established and implemented, including two core aspects. On one hand, a comprehensive review of the patient's medication history should be conducted to clarify the drug exposure–BMS pathogenesis association; on the other hand, secondary causes (such as nutritional deficiencies, endocrine disorders, and psychological disorders) should be excluded gradually, thereby improving the accuracy and standardization of BMS diagnosis.

Third, theoretically, "the more medications taken, the more likely BMS occurs." However, the article concludes that patients in the minor polypharmacy group (one–four medications) had significantly higher rates of BMS. We believe this might be due to the smaller number of patients in the polypharmacy (five–eight medications) and excessive polypharmacy (≥nine medications) groups. Future research should leverage large-scale databases, including

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the freely accessible National Health and Nutrition Examination Survey, the specifically designed for Chinese middle-aged and elderly cohorts of the China Health and Retirement Longitudinal Study, and the UK Biobank's complex disease mechanisms. We may arrive at "each additional routine medication increases the risk of BMS by X%" or a "high-risk medication combination list." This would provide significant guidance for clinicians in adjusting prescriptions and preventing iatrogenic BMS.

In conclusion, although Chiang et al.'s study provides important insights into the use of increased medications in aged patients with BMS, some questions still require exploration. Moreover, increased medications in patients with BMS should not be overlooked, especially for older women.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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Yang-Zhou Huang*
Department of Otorhinolaryngology Head and Neck Surgery, Sanming Integrated Medicine Hospital, Fujian University of Traditional Chinese Medicine, Sanming, China

Zhou-Hui Wu
Department of Dentistry, Sanming Integrated Medicine Hospital, Fujian University of Traditional Chinese Medicine, Sanming, China

* Corresponding author. Department of Otorhinolaryngology Head and Neck Surgery, Sanming Integrated Medicine Hospital, Fujian University of Traditional Chinese Medicine, No. 13 Shazhou Road, Sanyuan, Sanming 365000, China.
E-mail address: sanmingyangzhou@fjtcm.edu.cn (Y.-Z. Huang)

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