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Social Crises and Oral Vesiculobullous Lesions: A Significant Potential Association

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Dear Editor,

Oral Vesiculobullous Lesions (OVBLs) are characterized by the development of blisters and ulcerations within the oral mucosa, often leading to considerable pain and discomfort (1). The most frequently reported conditions in this group include oral lichen planus, pemphigus vulgaris, benign mucous membrane pemphigoid, and bullous pemphigoid (2). The currently accepted pathogenic mechanism involves the interaction of autoantibodies with adhesion molecules located in epidermal desmosomes, hemidesmosomes, or within the dermoepidermal basement membrane zone. This immune-mediated process triggers inflammatory responses and disrupts intercellular connections, ultimately resulting in blister formation. As these blisters coalesce and rupture, extensive and symptomatic ulcerations may develop (3).

Despite ongoing research, the primary etiological factors responsible for OVBLs remain incompletely understood. However, existing evidence suggests that adverse drug reactions, viral infections, and psychological disturbances may contribute to the onset and progression of these conditions by impairing immune function (4-7). For instance, nonsteroidal anti-inflammatory drugs and beta-blockers have been reported as common triggering agents in oral lichen planus (4).

In addition, several reports have indicated a possible relationship between OVBLs and infections such as SARS-CoV-2 and hepatitis C virus (5,6). Recent investigations have also highlighted the psychological burden experienced by patients with oral lichen planus, particularly depression and anxiety. These findings support the hypothesis that psychological stress may alter both innate and adaptive immune responses (7). Moreover, it has been suggested that anxiety, emotional distress, and chronic stress can either initiate or exacerbate oral mucosal lesions. These manifestations may represent a direct somatic expression of negative emotional states or arise indirectly through psychological disorders (8).

From a biological perspective, psychological stress influences the neuroendocrine–immune network by overstimulating the hypothalamic–pituitary–adrenal axis as well as the sympathetic–adrenal medullary system. Furthermore, the hypothalamic–pituitary–gonadal

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axis is regulated by these pathways, and their dysregulation can disrupt endocrine and immune homeostasis. Consequently, the secretion patterns of hormones, cytokines, and regulatory proteins may be significantly altered (7,8). Neuroimaging studies in individuals with anxiety and depression have also demonstrated that chronic stress affects hypothalamic volume and interferes with the functional integration between the endocrine and autonomic nervous systems (9).

Considering these observations, psychological stress appears to play a substantial role in both the development and persistence of oral vesiculobullous lesions, and it may also negatively affect treatment outcomes. Therefore, during periods of social crises, when psychological stress is markedly increased, clinicians should incorporate psychiatric evaluation and supportive psychological interventions alongside conventional therapeutic approaches for OVBLs.

Conflict of Interest

Authors declare no conflict of interest.

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