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## Editorial

## Oral mucosal health and stress

Pradhuman Verma<sup>1,\*</sup><sup>1</sup>Dept. of Oral Pathology/ Oral Medicine & Radiology, Dr. Ziauddin Ahmad Dental College & Hospital, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India

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According to WHO, Stress can be defined as ‘any type of change that causes physical, emotional or psychological strain.’ Stress is our body’s response to anything that requires attention or action.<sup>1</sup> Oral mucosa is highly reactive to psychological influences and in few cases oral mucosal lesions may be the direct expression of emotions or conflicts. The term psychosomatic is derived from Greek word “psyche” (mind) and “soma” (body). A psychosomatic disorder is a disease which involves both mind and body. Psychomotor disorders (PSD) are defined as psychosomatic symptoms that are caused by emotional factors and involve a single organ system usually the autonomic nervous system innervation. According to international classification of diseases (ICD-10) PSD are broadly classified depending on whether or not there is tissue damage.<sup>2</sup>

1. Psychological malfunction arising from mental factors: it describes varieties of physical symptoms of types of psychological malfunctioning of mental origin, not involving the tissue damage, and usually mediated through the autonomic nervous system. Includes in this category are respiratory disturbances such as hyperventilation and psychogenic cough; skin disorders such as pruritus.
2. If there is tissue damage and psychological factors are associated with a disease process, the following

definition is used: Mental disturbances or psychic factors of any type may be thought to have played a major part in the etiology of certain physical conditions usually involving tissue damage. Included under this are dermatitis, asthma, oral mucositis, gastric ulcer etc.

Chronic stress is likely to contribute to the progressive, long-term development of oral disease through two distinguishable pathways. First, stress can motivate individuals to cope in unhealthy ways that foster oral disease (e.g., substance use, including illicit drugs, alcohol and tobacco, poor diet, and sedentary behaviour). Second, chronic stress contributes to high allostatic load that can lead to the dysfunction of physiological systems critical to homeostasis, and thus, affect the underlying mechanisms of disease progression, more generally.

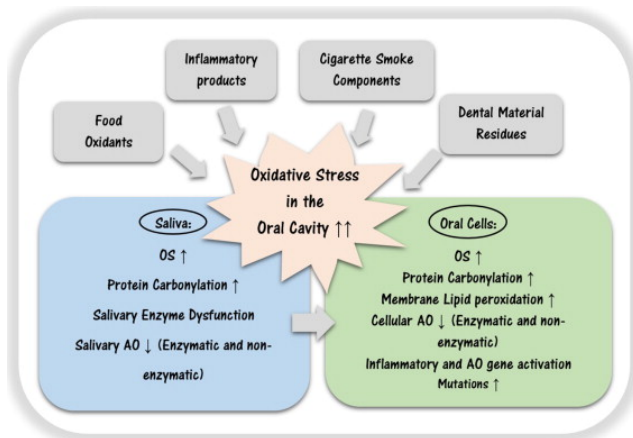
1. Role of Stress in Causing Oral Diseases<sup>3</sup>

1. Stress is an initiating / precipitating / predisposing/ triggering factor for oral diseases rather than a causative agent.
2. Stress reduces the resistance of body to the oral lesions
3. It activates the HPA axis, with a resultant increased serum steroid levels.
4. It causes immunosuppression or immune activation.
5. Reduces tolerance for pain.

According to Mc. Carthy PL and Shklar G<sup>4</sup> Oral Psychosomatic Disorders are classified as:

\* Corresponding author.

E-mail address: [pradhuman\\_verma@rediffmail.com](mailto:pradhuman_verma@rediffmail.com) (P. Verma).



**Fig. 1:** Pathophysiology of stress in causing oral psychosomatic disorders

1. Oral Psychosomatic diseases:
  - (a) Lichen planus
  - (b) Aphthous stomatitis
  - (c) Glossitis & stomatitis areata migrans
2. Oral diseases in which psychologic factors may play some etiologic role:
  - (a) Erythema multiforme
  - (b) Mucous membrane pemphigoid
  - (c) Chronic periodontal diseases
3. Oral infections in which emotional stress serves as a predisposing factor:
  - (a) Recurrent Herpes Labialis
  - (b) Necrotizing gingivitis
4. Oral diseases induces by Neurotic habits:
  - (a) Biting of oral mucosa (self-mutilation)
  - (b) Physical/ mechanical irritation
  - (c) Dental/ Periodontal disease produced by bruxism
5. Neurotic Oral Symptoms:
  - (a) Glossodynia
  - (b) Dysgeusia
  - (c) Mucosal pain

## 2. Measurement of Stress


It can be measured by Social Readjustment Rating Scale (SRRS) originally developed by HOLMES and RAHE in 1967.<sup>5</sup> This scale consists of a list of 43 life events, such as marriage, death of spouse, or birth of child. The subject of the investigation simply reports which event have occurred during either the past 6 months or the past year. The life events have been independently rated on a 100 point scale in terms of the perceived psychosocial adjustments required with death of spouse rated as 10 and vacations rated as 13. Similarly, Paykel and associates have published a 61- items scale and Kaplan and associates have published a 110- items scale.

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## Author biography



**Pradhuman Verma**, Professor and HOD  
 <https://orcid.org/0000-0002-3306-7266>

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