

**ESTIMATION OF STRESS AND SERUM CORTISOL
LEVELS IN PERIODONTAL HEALTH AND DISEASE.**

(A CLINICO-BIOCHEMICAL STUDY)

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The etiology of inflammatory periodontal disease is complex and multifactorial. The etiological significance of biological and behavioural risk factors, including systemic conditions, smoking, oral cleanliness, and age have been demonstrated.^{32,56,58} However a significant proportion of the variation in disease severity cannot be explained by taking only these factors into consideration. The remaining variation at least in part, may be explained by important psychosocial factors^{56,58,69}. Progressive disease results when the balance between periodontal tissues and oral flora is disrupted, and this may involve a depression of immune responsiveness as a result of factors such as physical and mental stress^{2,9,32,49,58}. According to Krasner (1978)^{39,58} if the patient's resistance is lowered by their inability to cope with stressful life events, then overt inflammatory disease may be manifested.

Several authors^{17,18,19,47,58,59} pointed out a possible association between psychological factors and inflammatory periodontal diseases on the basis of their clinical observations. Vogel et. al^{58,79} evaluated possible relationships between neuroticism, introversion and inflammatory periodontal diseases. There was a significant correlation between neuroticism and radiographic measures of inflammatory periodontal disease. Davis and Jenkins^{18,42,58} investigated possible association between "Psychological measures of stress" and periodontal disease. They found that anxiety was significantly correlated with periodontal index. The authors speculated that anxiety alters concentrations of adrenal corticoids and other hormones. Thus, level of inflammatory periodontal disease is presumably related to levels of circulating corticosteroids.^{4,24,44,58} On the basis of relatively few studies, a number of mechanisms have been proposed which could mediate the putative relationship between psychosocial conditions and inflammatory periodontal diseases. Such mechanisms include neglect of oral hygiene, changes in diet, increase