

**ESTIMATION OF SECRETORY IgA LEVELS IN SALIVA AND
ITS CORRELATION WITH TONGUE COATING AND ORAL
MALODOUR IN PERIODONTAL HEALTH AND DISEASE- A
CLINICO-BIOCHEMICAL STUDY**



By

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ABSTRACT

BACKGROUND: The accumulation of food remnants intermingled with exfoliated cells, bacteria causes a coating on tongue dorsum. Some microbes have properties of attacking proteins, amino acids from saliva, converting them into smelly gases. The S-IgA in saliva possesses the capacity to inhibit the bacterial adhesion to mucosal surfaces by agglutination.

AIMS AND OBJECTIVES: To investigate the correlation of 1) tongue coating with S-IgA 2) Oral malodour with S-IgA levels in saliva in patients with health, gingivitis and chronic periodontitis.

MATERIALS AND METHODS: Ninety systemically healthy subjects aged 18-60 years were recruited from the Outpatient Department of Periodontics. They were grouped into three groups after clinical examination. Each group had 30 subjects. Group I- healthy subjects, Group II- subjects with gingivitis and Group III – subjects with chronic periodontitis. Tongue coating was scored by scoring criteria by Kojima, 1985. Oral malodour was assessed organoleptically. 2ml of unstimulated saliva was collected into sterile ependoff tubes. S-IgA levels were estimated using ELISA procedure.

RESULTS: Absence of tongue coating and oral malodour was seen except in one subject in Group I with lower S-IgA levels. The tongue coating and malodour increased from Group II to Group III. The S-IgA decreased from Group II to Group III. Thus, S-IgA showed a reduction with increase in disease activity.

CONCLUSIONS: Correlation was found between tongue coating with S-IgA and Oral malodour and S-IgA in groups I,II and III. The correlation was not statistically significant. S-IgA may play a role in limiting the disease activity.