

## ▼ POST GRADUATES ABSTRACTS

### PG - 61 : SALIVARY INTERLEUKIN- 6 LEVELS AMONG POLYCYSTIC OVARY SYNDROME (PCOS) PATIENTS WITH AND WITHOUT CHRONIC PERIODONTITIS – A COMPARATIVE STUDY.

**Arun Varghese.V.T, Final year post graduate,**  
*Department of Periodontology,*

Indira Gandhi Institute of Dental Sciences, Pondicherry.

**Background:** Periodontitis is a chronic inflammatory disease characterized by increase in pathogenic bacterial microflora, resulting in destruction of bone and soft tissue. Periodontitis is associated with various systemic disease one of which is PCOS. PCOS is a genetically complex endocrinopathy of uncertain etiology affecting women of reproductive age group which results in most common cause of anovulatory infertility, menstrual dysfunction and hirsutism. PCOS have close association with cardiometabolic risk profile, insulin resistance (IR), hyperinsulinemia, central obesity, dyslipidemia and increase prevalence of cardiovascular risk factors. The common pathway is the chronic low grade inflammation which is constituted by proinflammatory cytokine IL-6.

**Aim:** To compare salivary IL-6 levels among Polycystic ovary syndrome (PCOS) patients with and without Chronic Periodontitis.

**Materials and methods:** Newly diagnosed PCOS patients were selected for the study and the periodontal Parameters were recorded. Group A consist of 42 patients of PCOS with Periodontitis & Group B consist of 42 patients of PCOS without Periodontitis. Salivary samples were collected in a 15 ml sterile container. Then salivary samples are stored in stored in -40 C.

The samples were then centrifuged at 3000 RPM for 15 mts. supernatant saliva is collected through the micropipette and collected in 1.5 ml vial. Salivary levels of IL-6 was compared between the two groups, and was assessed by Enzyme Linked Immuno Sorbent Assay (ELISA) kit (Bioassay).

**Results:** In our study, group A has mean age of  $24.88 \pm 3.2$  years from reproductive age group between 18 – 30 years and group B has a mean age of  $24.09 \pm 2.9$  years. On comparing age between group A and group B the values were not statistically significant. ( $p = 0.24$ ). BOP in group A was  $1.40 \pm 0.40$  and in group B it was  $0.91 \pm 0.18$ , PPD in group A was  $4.23 \pm 0.134$  and in group B it was  $1.30 \pm 0.06$ , CAL in group A was  $4.87 \pm 0.124$  and in group B was  $1.30 \pm 0.06$ . The values were statistically significant ( $p = <.001$ ). IL-6 level in group A is  $102.59 \pm 18.2$  and in group B it was  $51.3 \pm 25.3$ . Which implies there is an increase salivary IL-6 level in group A (PCOS with Periodontitis) than group B (PCOS without Periodontitis).

**Conclusion:** Salivary IL-6 levels shows a double fold increase in Group A (PCOS with Periodontitis) than in group B ( PCOS without Periodontitis).