

ABSTRACT

EFFECT OF NON SURGICAL PERIODONTAL THERAPY ON LEVELS OF RESISTIN IN GCF OF PATIENTS WITH CHRONIC PERIODONTITIS AND IN CHRONIC PERIODONTITIS PATIENTS WITH TYPE 2 DIABETES MELLITUS

BACKGROUND: Resistin is a putative adipocyte derived signalling polypeptide which belongs to the group of adipokines. It acts as a proinflammatory molecule and stimulates the synthesis and secretion of proinflammatory cytokines. The aim of this study is to evaluate the levels of resistin in gingival crevicular fluid (GCF) before and after non surgical periodontal therapy in systemically healthy chronic periodontitis patients and in chronic periodontitis patients with type 2 diabetes mellitus.

MATERIALS AND METHODS: The study includes a total of 37 patients with 20 systemically healthy chronic periodontitis patients and 17 chronic periodontitis patients with type 2 diabetes mellitus. The patients were selected from the outpatient ward who visited the Department of Periodontology, KSR Institute of Dental Science and Research, Tiruchengode, Tamilnadu. The study includes 2 groups: **GROUP I (20 patients)** : Systemically healthy chronic periodontitis patients and **GROUP II (17 patients)** : Chronic periodontitis patients with type 2 diabetes mellitus. The clinical parameters including plaque index (PII), gingival index (GI), probing depth (PD) and clinical attachment level (CAL) were recorded for all the patients at baseline and at 3 months following non surgical periodontal therapy. GCF samples were collected from the tooth with deepest periodontal pocket at baseline and at 3 months following non surgical periodontal therapy. The levels of resistin in GCF samples were analysed using an Enzyme Linked Immunosorbent Assay (ELISA).

RESULT: After non surgical periodontal therapy, both the groups showed statistical significant p value ($p < 0.05$) with improvement in all clinical parameters. There was significant reduction in resistin level after non surgical periodontal therapy with p value $p < 0.05$ in both the groups. There was no significant difference in the resistin levels between two groups at baseline and also after scaling and root planing (SRP).

CONCLUSION: Non surgical periodontal therapy – SRP is found to be effective in the treatment of chronic periodontitis patients with and without diabetes mellitus and also GCF resistin can be a useful biomarker to detect the periodontal disease condition.

KEYWORDS: Non surgical periodontal therapy, Chronic periodontitis, Type 2 diabetes mellitus, GCF, Resistin.