

ABSTRACT

BACKGROUND:

Diagnosis of the active phase of periodontal disease and identifying the patients at risk for active disease is being a challenge for clinical investigators. The traditional method of diagnosing periodontitis one includes assessment of clinical parameters and radiographic aids to evaluate the periodontal tissue destruction. Saliva has the potential to be used as the diagnostic fluid for oral disease. Its easy method of collection through non-invasive methods. Evaluation of ALP by simplified method of spectrometry and its cheaper analysis cost makes the biomarker ALP as a resilient and reliable one for the diagnosis of periodontal disease activity

AIM:

The aim of this study is to compare the quantitative levels of Alkaline phosphatase in saliva and serum before and after scaling and root planing in patients with chronic generalised periodontitis.

MATERIALS AND METHODS:

A total number of 50 subjects (40 with chronic generalised periodontitis and 10 periodontally healthy volunteers) of 30 to 50 years were included in the study. After getting the informed consent signed, all the individuals participated in the study were subjected to measurement of clinical parameters such as OHI-S, Gingival index, probing depth and CAL and then saliva and blood sample collection was done and analysed for ALP levels by spectrometry. The clinical parameters, serum and salivary ALP were re-evaluated after 30 days following phase I periodontal therapy. The results were statistically analysed using paired t test and One-way ANOVA.

RESULTS:

The salivary and serum ALP levels were significantly increased in patients with chronic generalised periodontitis with increase in clinical parameters such as OHI-S, Gingival index, probing depth and CAL when compared with periodontally healthy individuals. The salivary and serum ALP levels were significantly decreased following phase I periodontal therapy along with improvement in clinical parameters thus exhibiting a positive correlation

between clinical parameters with both salivary and serum ALP levels. P values from the statistical tests presented were found to be statistically highly significant at P-value .000**

CONCLUSION:

With the limitations of the present study it could be concluded that ALP levels in saliva can be used for the diagnosis of active phase of periodontal disease and also for evaluation of the treatment outcomes following periodontal phase 1 therapy.

Keywords: Alkaline phosphatase, Chronic Periodontitis, Salivary biomarkers, Non-surgical periodontal therapy.