

Association between Plasma Lipid Levels and Periodontitis: A Preliminary Analysis

**W.K.L. Perera¹, E.A.A.P. Amaratunga², W.C. Mohotty¹, N.P.M. Perera¹, S. Kularatne³,
R. Sivakanesan⁴ and A. Tilakaratne¹**

¹*Department of Oral Medicine and Periodontology, Faculty of Dental Sciences,
University of Peradeniya*

²*General Hospital, Ampara*

³*School of Medicine, Griffith University, Australia*

⁴*Department of Biochemistry, Faculty of Medicine, University of Peradeniya*

Hyperlipidaemia and periodontitis are both highly prevalent chronic diseases in the world population, with periodontal disease being the most prevalent adult oral health problem in Sri Lanka. Literature reveals a bidirectional relationship between periodontitis and some systemic illnesses including atherosclerotic cardiovascular diseases, metabolic diseases such as diabetes mellitus and dyslipidaemia. Dyslipidaemia is an established causative factor for atherosclerosis and cardiovascular diseases. Periodontitis could alter blood lipid metabolism, however treating periodontal infections improves the dyslipidaemic status in patients. The objective of this study was to evaluate any possible relationship between presence of periodontitis and blood lipid levels.

This is an ongoing study in the Division of Periodontology, Faculty of Dental Sciences, University of Peradeniya. The study consisted of a 'Test' group of patients (n = 47) diagnosed with periodontitis according to the established diagnostic criteria, and an age and sex matched 'Control' group (n = 22) with individuals free of periodontitis who attended the clinic for dental consultations. Full mouth periodontal assessments were done by a well trained practitioner, following intra-examiner calibration. Their lipid profiles were assessed within three days following recruiting subjects and prior to commencing periodontal treatment or oral prophylaxis.

Results of the preliminary analysis showed that, there were significant increases in levels of Total-Cholesterol and Low-Density Lipoprotein Cholesterol in the test group compared to the control group ($p < 0.013$ and $p < 0.007$, respectively; Students t-test). This preliminary finding supports the already reported trend by similar research studies outside Sri Lanka to describe the association of hyperlipidemia and periodontitis.

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