Abstract

Objective: Untreated periodontal disease seems to cause low grade systemic inflammation and blood lipid alteration leading to increased cardiovascular disease risk. To start testing this hypothesis in Colombian patients, a multicentre study was conducted including the three main state capitals: Bogotá, Medellín and Cali. Methods: In this study 192 (28.4%) advanced and 256 (37.8%) moderate periodontitis patients were investigated for socio-demographic variables, city of precedence, periodontal parameters, smoking, red complex periodontopathic bacteria, serum antibodies against Porphyromonas gingivalis and Aggregatibacter actinomycetemcomitans and blood lipids including total cholesterol, HDL, LDL and triglycerides (TG). Those parameters were compared to 229 (33.8%) controls having periodontal health or gingivitis. Results: Advanced periodontitis had worst periodontal indexes, than moderate periodontitis and controls. Interestingly, higher HDL and TG levels were present in periodontitis. BMI > 30 and smoking were associated with increased HDL, HDL-35, LDL and TG, while glycemia >100 mg/dL associated with HDL, HDL-35 and TG. Tannerella forsythia showed a significant association with HDL-35 in bi-variate analysis and serum IgG1 against P. gingivalis associated with HDL-35 and serum IgG1 against T. forsythia associated with TG and serum IgG2 against A. actinomycetemcomitans correlated with levels of HDL y HDL-35. In logistic regression the periodontitis patients from Cali presented reduced HDL levels as compared to Bogota and Medellin patients. Presence of IgG1 antibodies against P. gingivalis and A. actinomycetemcomitans correlated with reduced HDL levels...

Keywords

Periodontal disease, dyslipidemia, HDL, LDL, triglycerides.