

RELATIONSHIP BETWEEN DYSLIPIDEMIA, C-REACTIVE PROTEIN AND SEROLOGICAL EVIDENCE OF CHLAMYDIA PNEUMONIAE IN TURKISH PATIENTS WITH CORONARY ARTERY DISEASES

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SUMMARY

Relationship between dyslipidemia, C-Reactive Protein (CRP) and serological evidence of Chlamydia pneumoniae was investigated in a Turkish population with coronary artery disease. This prospective, randomized, blinded study was carried out in Florence Nightingale Hospital which is affiliated to Kadir Has University, Medical Faculty. Thirty-two patients with acute coronary artery diseases (ACAD), 32 patients with chronic coronary artery diseases (CCAD) and 26 healthy controls (HC) were included in the study. We detected serum concentrations of C. pneumoniae IgG, IgA and IgM by ELISA method. We measured total cholesterol, triglyceride, LDL and HDL-cholesterol levels to determine dyslipidemia which was defined as total cholesterol >200 mg/dL, triglyceride > 150 mg/dL, LDL >130 mg/dL, HDL <45 mg/dL. CRP levels were also measured.

Seropositivity to C. pneumoniae IgG was 84.3%, 100% and 65.3%; seropositivity to IgA was 9.3%, 6.2%, and 3.8%; and seropositivity to IgM was 12.5%, 15.3%, and 15.4% in patients with ACAD, CCAD and HC, respectively.

Dyslipidemia was found as 93.7%, 78.1% and 0% of patients with ACAD, CCAD and HC, respectively. CRP level was high in all patients (ACAD, CCAD) but not in healthy controls.

As a conclusion, we found a significant association between seropositivity to C. pneumoniae IgG and dyslipidemia and CRP levels in ACAD and CCAD patients ($p < 0.05$). C. pneumoniae IgG antibodies should be evaluated together with serum lipids and CRP levels in patients with ACAD and CCAD in Turkish population. This may help clinicians in treatment of C. pneumoniae infection and decrease the risk of coronary artery diseases.

KEY WORDS: C. pneumoniae, coronary artery disease, dyslipidemia, CRP

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INTRODUCTION

That atherosclerosis, including coronary artery diseases, could be caused by an infectious agent has received attention during the last 15 years and C. pneumoniae was one of the main pathogens under suspicion (Schumacher *et al.*,

2001). Although many risk factors for atherosclerosis are known such as dyslipidemia, hypertension, smoking and diabetes, much of the attributable risk remains unexplained (Smieja *et al.*, 2003). C. pneumoniae and other infectious agents may directly or indirectly trigger the cascade of biological and biochemical reactions lead-