EVALUATION OF C-REACTIVE PROTEIN LEVELS IN PATIENTS WITH FAMILIAL HYPERCHOLESTEROLEMIA

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Introduction: Increased levels of different inflammatory markers have been associated with increased cardiovascular risk.

Aim: To evaluate C-reactive protein (CRP) levels in patients with familial hypercholesterolemia.

Methods: We enrolled 120 heFH patients, clinically diagnosed according to the Dutch Lipid Clinic criteria, who haven't been prescribed any lipid lowering therapy in the past. We recorded their biochemical parameters, lipid profile, c-reactive protein (CRP) levels and underwent molecular analysis of the LDL-receptor gene by sequencing.

Results: A mutation of the LDLR gene was found on the 57%(69 patients) of our population (43 patients were carriers of the Genoa-Palermo mutation, 19 patients were Africaner-2 carriers, 4 were Greece-2 carriers and 3 were Sicily carriers). Multi-linear regression analysis showed that carriers of an LDLR gene mutation presented statistically significantly increased CRP levels compared to those without any LDLR mutation detected (p< 0.001), independently of age, sex, BMI, total cholesterol and LDL cholesterol levels. Furthermore, we noticed that Genoa-Palermo carriers had statistically significantly increased CRP levels compared to Africaner-2 carriers (CRP_{Genoa-Palermo}:0,8(0,65-1,28) προς CRP_{AFRICANER 2}:0,42(0,15-0,65), p=0,001).

Conclusion: According to our findings, patients with an LDLR gene mutation present increased CRP levels. Furthermore Genoa-Palermo type, seems to have a greater impact on CRP levels.