Letters to the Editor — Editöre Mektuplar

Lipid disorders in Familial Mediterranean Fever patients: Is inflammation the only cause?

Dear Editor,

We read the article about the relationship between lipid indices and Familial Mediterranean Fever (FMF) reported by Çakırca et al. with great interest. The lipid indices of FMF patients were compared with healthy counterparts and it was reported that the high-density lipoprotein (HDL) level was lower in FMF patients than in healthy controls, and as a result, the atherogenic lipid indices are worse in FMF patients. A chronic inflammatory state was suggested as the underlying mechanism for this difference.[1]

Erythrocyte sedimentation rate, CRP, and fibrinogen are all inflammatory indices, and these parameters were assessed only in FMF patients and not evaluated in the healthy counterparts. Thrombocytosis is a well-known characteristic of chronic systemic inflammation and the thrombocyte counts were similar between the 2 groups. Therefore, according to these findings, we think that it is difficult to say the 2 groups are significantly different according to inflammatory state.

Secondary amyloidosis occurs as a consequence of overproduction and extracellular deposition of serum amyloid A protein (SAA); it is a well-known complication of FMF. The incidence in FMF patients is 8.6%.[2] SAA is synthesized from the liver with the induction of inflammatory cytokines, including interleukin (IL)-1, IL-6 and tumor necrosis factor alpha. SAA binds to HDL and replaces it with apolipoprotein A. Increased SAA levels are associated with decreased HDL levels.[3] Cengiz et al.[4] reported that renal amyloidosis had deleterious effects on the lipid profile independent of inflammatory state. HDL levels were significantly lower in patients with renal amyloidosis than in patients with chronic renal failure due to other causes, while the values of low-density lipoprotein, lipoprotein a, triglycerides, and total cholesterol levels were higher in renal amyloidosis patients.

To conclude, chronic inflammation most certainly has important effects on the lipid profile in FMF patients, but in our opinion, patients should be evaluated for renal amyloidosis, as it is a frequent complication of FMF and is associated with dyslipidemia.

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doi: 10.5543/tkda.2018.44389

Conflict of interest: None declared.

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Authors reply

Dear Editor,

We thank the authors for their important comments on our article. Familial Mediterranean fever (FMF) is a chronic inflammatory disease that is the result of a mutation of the MEFV gene. Mutation of the MEFV gene leads to a loss of pyrin function and results in uncontrolled inflammation.[1] In our study, we found that high-density lipoprotein (HDL) levels in FMF patients were lower than those of the control group. This finding was consistent with previous studies.[2,3] We also found a negative correlation between HDL and C-reactive protein (CRP) in the FMF group. Hence, based on the results of this study, we think that low HDL levels may be associated with the inflammatory process of FMF. Similarly, Candan et al.[2] reported that low grade inflammation caused by MEFV mutations may be responsible for this low HDL level in FMF. In our study, the absence of erythrocyte sedimentation rate, CRP and fibrinogen level values for the control group may be a limitation of the study. However, the controls were healthy individuals who presented at the hospital for a check-up and did not have any disease.