

Discussion

The objective of this study was to determine the lipid profile of ERA patients had to investigate whether this could be influenced by disease activity in the early stages of rheumatoid arthritis. According to the results, patients with ERA exhibited an atherogenic lipid profile characterized by a significantly reduced serum level of HDL-C and as a sequence an increase in the atherogenic ratio of TC/HDL-C or LDL-C/HDL-C was observed in ERA patients, suggesting that these patients are possibly exposed to a higher risk of atherosclerosis.

The lipid profile of patients with ERA has been evaluated in several studies. Some of these studies have reported lower levels of HDL-C and TC, higher TC/HDL-C and LDL-C/HDL-C ratios in active and/or untreated disease than in general population^(19, 20). On the other hand other studies did not show significantly different lipid levels from those observed in the healthy population^(21, 22), while others referred to an overall reduction in all lipid sub-fractions in cases of active disease⁽²³⁾.

These contrasting results may be attributed to the size of the sample, the type of the study (prospective or cross-sectional) and difference in the disease type (established or early) or to difference in disease activity. Patients in remission or with controlled disease show an increase in HDL-C levels and a reduction in the atherogenic index compared to patients with active disease.

Systemic inflammation may also play a role in the development of atherosclerosis⁽²⁴⁾. In fact the increase in acute phase reactants in cardiovascular events has already been documented⁽²⁵⁾. It has even been suggested that RA and atherosclerosis may share a common predisposing factor^(26, 27).

CRP is the common denominator for both diseases CRP which increase in active disease may contribute to atherosclerosis because it stimulates macrophages to produce tissue factor, a procoagulant that is found in atherosclerosis plaques^(28, 29). The presence of CRP in atheromatic lesions also suggests a (cause and effect) relationship between this acute phase reactant and coronary events⁽³⁰⁾.

An important observation is that ERA patients exhibit low HDL serum levels. The decrement in HDL-C was inversely correlated with the increment of either CRP levels or ESR values. This suggests that inflammation is an important determinant for the reduced HDL-C levels observed in ERA patients. It is possible that RA patients may have some classic risk factors for atherosclerosis development^(33, 34). However it is not correct to attribute the increase prevalence of atherosclerosis observe in RA patients to those factors. In our study, we tried to exclude patients with classic risk factors for atherosclerosis and we found that ERA patients with high disease activity showed an adverse lipid profile before the commencement of therapy.

References

- 1- Lee DM, Weinblatt ME, Rheumatoid arthritis Lancet 2001; 358:903.
- 2- Turesson C, Jansen J, Jansson L. Increased incidence of cardiovascular disease in patients with rheumatoid arthritis. Results from a community based study. Ann Rheum Dis 2004 Aug; 63(8):952-5. Epub 2004 Mar 29.
- 3- Fleming A, Crown JM, Corbett M. Early rheumatoid disease. I Onset. Ann Rheum Dis 1976 Aug; 35(4):357-60
- 4- Best pract Res Clin Rheumatol 2002 Dec; 16(5):707-22 Abstract quote.
- 5- Arnett FC, Edworthy S, MDA et al. The American Rheumatism Association 1987 revised criteria for the classification of rheumatoid arthritis. Arthritis Rheum 1988; 31:315.