compared to the controls. The IMT at T5 was more highly predicted by baseline levels of biomarkers of endothelial activation in patients with RA compared to controls.

16 PROGRESSION OF SUBCLINICAL ATHEROSCLEROSIS OVER 5 YEARS IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

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Background and objectives Patients with rheumatoid arthritis (RA) have an increased mortality and morbidity due to cardiovascular disease (CVD). A premature atherosclerosis can be measured by ultrasound of intima media thickness (IMT) and of flow-mediated dilation (FMD). In patients with RA of recent onset the authors have found IMT and FMD to be similar as in controls. In this prospective 5-year follow up, the authors aimed to investigate for increased progression of atherosclerosis in the patients with early RA compared to the controls. The authors also aimed to analyse the relationship between IMT and FMD and biomarkers of endothelial dysfunction, taking inflammation and traditional CVD risk factors into account.

Material and methods Patients from northern Sweden diagnosed with early RA are followed in an ongoing prospective study of co-morbidity. From these patients a subgroup aged ≤60 years (n=71), was consecutively included for measurements of IMT of A. carotis communis and FMD of A. brachialis. The ultrasound measurements were taken at inclusion (T0) and after 5 years (T5). Forty-two age/sex matched controls were included. The patients were clinically assessed (DAS28, TJC, SJC, DMARDs) and blood was drawn from all individuals for initial analysis of cholesterol, HDL-cholesterol, triglycerides, ESR, CRP, MCP-1, PAI-1, tPA-mass, VWF, sICAM, sVCAM, sE-selectin and sL-selectin.

Results Patients with RA had a significant aggravation in both IMT (0.052 at T0 and 0.058 at T5, $p<0.001$) and FMD (0.090 at T0 and 0.070 at T5, $p<0.001$). Among the controls the increase was less evident and only significant for IMT (0.055 at T0 and 0.060 at T5, $p<0.001$). In linear regression analyses among patients with RA, the IMT at T5 was significantly associated with several variables measured at T0: systolic and diastolic blood pressure (BP), cholesterol, triglycerides, tPA, VWF, and MCP-1 and it was inversely associated with sL-selectin. In the corresponding analyses of FMD at T5 it was significantly associated with sL-selectin and inversely associated with diastolic BP and VWF at T0. Among the controls, the IMT at T5 was significantly associated with cholesterol, HDL, triglycerides, body mass index, systolic and diastolic BP, and tPA at T0, while FMD related inversely with VWF at T0.

Conclusions In 5 years, the increase in subclinical atherosclerosis tended to be more evident among patients with early RA