A24 ADIPONECTIN IS A PREDICTOR FOR RADIOGRAPHIC PROGRESSION IN EARLY RA PATIENTS, INDEPENDENTLY OF ANTI-CCP ANTIBODIES

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Background and objectives Adipose tissue can secrete soluble mediators (adipokines) with potent immune regulatory functions. Some adipokines have been previously associated with radiographic damage in rheumatoid arthritis (RA) in cross-sectional studies. In the present study we investigated the capacity of adipokines to predict radiographic progression over a period of 4 years and studied their contribution relative to other known risk factors, such as anticyclic citrullinated peptide (anti-CCP) antibodies.

Materials and methods Serum concentrations of leptin, visfatin, resistin, adiponectin, adipon, tumour necrosis factor (TNF) α and interleukin (IL) -6 were determined in baseline sera of 253 RA patients from the Early Arthritis Cohort. The association between levels of these adipokines, and radiographic progression was determined using multivariable regression analysis correcting for age, gender, body mass index (BMI) and the presence of antiCCP antibodies.

Results IL-6, TNF α , visfatin and adiponectin levels associated positively with radiographic progression over four years. This association was independent of BMI. However, only adiponectin and IL-6 levels remained independent predictors for progression when corrected for anti-CCP antibodies. The association of both TNF α and visfatin with radiographic damage seemed dependent on anti-CCP antibodies, which is in line with the fact that the levels of both cytokines correlated significantly with anti-CCP levels in these patients. Stratification for the presence of anti-CCP antibodies revealed that adiponectin associated with progression only in anti-CCP⁺ disease, whereas a trend for a positive association was apparent for IL-6 in both anti-CCP⁺ and anti-CCP⁻ disease.

Conclusions Our results indicate that adipokines are predictors for radiographic progression in RA, possibly through distinct underlying biological mechanisms. Within the adipokines studied, adiponectin was found to predict radiographic progression independently of anti-CCP antibodies and only in anti-CCP⁺ disease, which indicates it as a potential therapeutic target in RA.