phase response as a predictor of these metabolic disturbances in IA.

Methods Eighty seven patients (38 rheumatoid arthritis, 29 spondyloarthropathy, 20 undifferentiated inflammatory arthritis) and 30 age-, gender- and race matched healthy controls (CN) were enrolled. Patients who had taken glucocorticoids during the previous 2 months or were taking agents known to affect insulin sensitivity or lipid metabolism were excluded. The body mass index (kg/m^2) was calculated in each subject. The erythrocyte sedimentation rate (ESR), plasma glucose, serum insulin and total cholesterol (chol), LDL-chol, HDL-chol and triglycerides were determined on fasting blood samples. IR was estimated by the homeostasis model assessment (HOMA).

Results The mean (SD) BMI (kg/m^2) was 26.5 (4.2) in the patients and 22.9 (2.8) in the CN ($p < 0.001$). The mean (SD) HOMA ($\text{uU.mmol}/\text{ml.l}$) was 1.9 (1.3) in patients as compared to 1.1 (0.5) in CN ($p = 0.001$). The HDL-chol was lower ($p = 0.002$) and the total chol/HDL-chol was higher ($p < 0.001$) in patients as compared to CN. Only after controlling for the BMI in addition to the ESR, was the HOMA no longer different between patients and CN. The ESR and HOMA, but not the BMI, significantly predicted ($p < 0.05$) high chol/HDL-chol ratios. However, after controlling for these variables, this lipid parameter remained different in patients as compared to CN. Also, IA was associated with a positive family history for premature coronary arter disease ($p < 0.03$).

Conclusion Metabolic disturbances were identified in the majority of our patients and should therefore be addressed in the management of IA. IR could be attributed to the acute phase response and excess weight. However, dyslipidemia was associated with IA independent of the ESR, BMI and IR. Dyslipidemia may constitute a risk factor for IA.

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OP0015 THE DISEASE COURSE OF PATIENTS WITH RHEUMATOID ARTHRITIS IN REMISSION; A PROSPECTIVE 2 YEAR FOLLOW-UP STUDY

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Background

Objectives To assess the prevalence of persistent remission and factors associated with persistent remission in a large cohort of RA patients in remission.

Methods RA patients in remission according to the ACR/Pinals criteria were evaluated every 3 months for disease activity during 2 years. Factors measured at baseline and possibly associated with persistent remission were evaluated.

Results Of the 180 RA patients included 93 (52%) experienced persistent remission. Those patients had significantly ($p < 0.05$) less tender joints, lower Ritchie score, lower VAS score, lower serum IgM-RF and IgA-RF levels, lower HAQ score at baseline when compared to patients suffering an exacerbation. DMARD use was not associated with persistent remission. In a multivariate analysis, the following variables were independently associated with persistent remission: DAS < 1.6 (odds ratio with 95%

CI: 3.7, 1.5–9.5) and VAS < 12 (1.1, 1.0–1.2). The area under the curve of the DAS < 1.6 in the first year was associated with remission in the second year (9.9, 4.1–24).

Conclusion Persistent remission occurs frequently and is associated with a low disease activity score (DAS), in particular with a low cumulative DAS. The use of a cumulative DAS may be a tool in taking therapeutic decisions.

OP0016 OSTEOCLAST NUMBERS IN JOINTS OF RATS WITH ADJUVANT ARTHRITIS ARE DECREASED BY TREATMENT WITH IL-1RA AND/OR PEG STNF-RI

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Background Adjuvant arthritis (AdA) induced in Lewis rats by injection of mycobacteria in oil is characterised by marked inflammation and skeletal damage. Recent work by our group using the AdA model has shown that skeletal destruction is mediated by the osteoclast differentiation factor osteoprotegerin (OPG) ligand,¹ and that inhibition of bone loss is associated with anti-inflammatory efficacy.²

Objectives The current study was performed to assess whether anti-inflammatory molecules act to spare bone by regulating intra-lesional numbers of osteoclasts.

Methods AdA was induced in male Lewis rats ($n = 6/\text{group}$) on Day 0, and hind paw swelling developed on Day 9. Animals were treated for 7 days (Days 9–15) and then necropsied (Day 16). Therapy consisted of interleukin-1 receptor antagonist (IL-1ra) or pegylated soluble tumour necrosis factor receptor type I (PEG sTNF-RI), administered alone or in all possible combinations, at the following doses: IL-1ra, 0.2, 1.0 or 5.0 mg/kg/hr (by s.c. infusion); PEG sTNF-RI, 0.25, 1.0 or 4.0 mg/kg/day (s.c bolus). Osteoclasts were detected by an indirect immunohistochemical method for cathepsin K. Inflammation, bone erosion and osteoclast numbers were scored blindly using tiered, semi-quantitative grading scales.

Results Dose-dependent reductions in inflammation, bone erosion and osteoclast scores were observed for high doses of both anti-cytokine therapies, whether given alone or in combination.

Conclusion These data indicate that anti-inflammatory doses of IL-1ra and PEG sTNF-RI protect the structural integrity of arthritic joints by regulating osteoclast numbers.

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OP0017 DEPRESSION INCREASES THE RISK OF MORTALITY IN RHEUMATOID ARTHRITIS

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Background Whether depression makes RA worse is unclear because active RA can itself cause depression. The issue is even less clear when cross-sectional studies are performed, for there is no way to determine the direction of causality, and patient self-reports are also influenced by depression. Longitudinal