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

¹ET Molenaar, ¹AE Voskuyl, ²HJ Dinant, ³PD Bezemer, ¹BA Dijkmans. ¹Department Rheumatology, Vrije Universiteit Medical Center; ²Jan Van Breemen Instituut; ³Department Medical Statistics, Vrije Universiteit Medical Centre, Amsterdam, The Netherlands

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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

U Feige, YL Hu, S Morony, G Campagnuolo, D Duryea, B Bolon. *Pharmacology/Pathology, Amgen, Thousand Oaks, USA*

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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

¹F Wolfe, ²HK Choi. ¹National Data Bank for Rheumatic Diseases, Arthritis Research Center Foundation, Wichita, USA; ²Rheumatology Unit, Harvard Medical School, Boston, USA

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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

evaluations employing a 'hard' outcome such as mortality can help overcome these problems.

Objectives To understand the correlates of depression in RA and to determine whether depression itself is predictive of mortality in RA.

Methods We studied 1500 consecutive RA outpatients during a 20 year period beginning in 1981. 1483 patients completed 27,773 depression questionnaires from the Arthritis Measurement Impact Scales (AIMS). The relation of depression to other variables was studied with generalised estimating equations (GEE). For ease of interpretation, depression was considered present when the AIMS score was 4 or greater in the GEE analyses. The predictability for mortality of depression, and other variables obtained 1) during the first 2 years of follow-up and 2) over the entire course of RA was examined using Cox regression (Cox) models.

Results Depression was related to age < 65 years (odds ratio 1.3), non-white ethnic origin (OR 1.9), and decreased family income, but was unrelated to sex or marital status. Compared to university graduates, secondary school graduates and non-graduates had increased risk for depression, OR 1.4 and 2.1 respectively. In multivariate models, education, income and ethnic origin were independently related to depression. In clinical models, ESR, white cell count, joint count, grip strength, patient global severity, pain and HAQ (HAQ OR 2.33 (95% CI 2.11, 2.59, $p < 0.001$) were also strongly related to depression. In univariate Cox models, 2-year depression was predictive of mortality ($z = 3.55$ $p < 0.001$), and remained predictive even when ESR, joint count, WBC and grip strength were added as 2-year covariates ($z = 2.00$ $p = 0.046$). However, when HAQ disability, patient global, or pain was added to the model, depression was no longer significant ($p = 0.388$). The same results were noted when the 2-year depression scores were modelled with full covariates (from first through last observation). Finally the hazard ratio (HR) for the effect of a depression score of 4 or greater over the full course of the disease was 1.33 (95% CI 1.09, 1.63) after adjusting for all covariates. This result was maintained after also controlling for blood pressure, BMI, prednisone use and comorbid illnesses.

Conclusion Depression during the first 2 years of clinical care is associated with increased RA mortality, and is also associated when laboratory or physician associated covariates are added. The effect of depression on mortality is strengthened by follow-up, and this association (HR 1.33) is maintained even after the inclusion of all covariates. These data suggest that depression has a small but definite association with mortality in RA. Even so, it is possible that additional medical factors that were not recognised by our models might be causally related to depression and therefore to mortality.

THU0125 IS ANXIETY A MORE COMMON DISORDER THAN DEPRESSION IN RHEUMATOID ARTHRITIS?

¹YM El Miedany, ²AM Haroun. ¹Rheumatology Department; ²Neuropsychiatry Department, Ain Shams University, Faculty of Medicine, Cairo, Egypt

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Background Most of the previous clinical researches published payed more attention to study depressive disorders and/or symptoms in patients with rheumatoid arthritis (RA). Fewer research studies were done to investigate the prevalence of anxiety in patients with RA patients.

Objectives This study was performed to investigate whether anxiety disorder is as common as depressive disorder in RA patients and to look for the sociodemographic as well as the clinical characteristics of the patients developing these disorders.

Methods A detailed physical assessment of 80 patients with RA was performed. Also psychiatric assessment was done using Research Diagnostic Criteria for the International Classification of Disease (ICD-10). In addition, patients answered a Health Assessment Questionnaire (HAQ) to assess their functional capacity.

Results Depression was diagnosed in 66.25% of the total sample while anxiety was diagnosed in 70%. Functional disability, social stress and morning stiffness were the factors highly associated with depression. Using multiple regression analysis, anxiety was also highly associated with depression. On the other hand, Ritchie articular index as well as depression were positively associated with anxiety disorder.

Conclusion Psychiatric illness is a relatively common disorder in patients with RA, with frequency higher than that of other general medical conditions. Anxiety is a more common disorder than depression. The first step in correct management is recognition of anxiety and depression so that appropriate treatment can be tried. Particular attention has to be paid to social stress and lack of social support.

THU0126 DEXTERITY AND ANXIETY IN LARGE COHORT OF RHEUMATOID ARTHRITIS PATIENTS

SJ Stropuviene, J Jankauskiene, J Dadoniene, A Venalis. Department of Rheumatology, Institute of Experimental and Clinical Medicine, Vilnius, Lithuania

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Background Psychological distress is often a leading condition in rheumatoid arthritis clinical picture in addition to disability and disease activity measures. Being long lasting process it makes an impact on disease coping process and management itself.¹

Objectives The aim of the study was to determine which demographic and clinical variables relate to anxiety and depression most of all in 225 rheumatoid arthritis (RA) patients cohort.

Methods The study was performed as satellite project to Vilnius rheumatoid arthritis register. The patients were invited to participate in the study and to answer the questions concerning education and employment, physical functioning: ACR functional classes, dependence on relatives and HAQ and patients global assessment of health status. The disease activity was measured by physicians global assessment, pain VAS, morning stiffness and modified DAS. Anxiety and depression were measured by AIMS2 questioner particularly asking about mood alterations with range of possible answers: 1-never and 6-almost ever. The level 6,0 for anxiety and 4,0 for dexterity were used as cut of levels.² The chi-square method was used for evaluation of associations and was qualified as significant if $p < 0,05$.

Results In this particular cohort we found that 32% of patients were experiencing the anxiety and even 42,2% – depressive moods. As the result, we found strong associations between anxiety levels with disease outcome measures: physical functioning classes ($\chi^2 = 12,72$; $p = 0,00$), disability indices ($\chi^2 = 21,09$; $p = 0,00$) and employment holding ($\chi^2 = 5,62$; $p = 0,01$). Global evaluation of disease activity by physician was the only one significantly correlated disease activity measure ($\chi^2 = 12,51$; $p = 0,00$). Dexterity levels showed the same significant associations with the same measures. In addition to it dexterity