spondylarthropathies (group 2), 22 patients with more than 3 years duration of rheumatoid arthritis (group 3) and 20 patients with arthralgia (group 4).

Results The total outlined synovial volumes in the finger joints before Gadodiamide injection and the number of bone erosions at baseline MRI were highly predictive of bone erosions one year later in patients with rheumatoid arthritis (group 1 and 3). The number of bones with erosions and oedema varied significantly between the patient groups. The strongest individual predictor of bone erosions at one year follow up was bone marrow oedema, if present at the wrist at baseline. Bone erosions on baseline MRI were in few cases reversible at follow up MRI.

Conclusion The total synovial volume in the finger joints before contrast, the number of bone erosions and presence of bone oedema in the wrist at baseline seems to be predictive for the number of bone erosions 1 year later and may be used in screening. The importance of very early bone changes on MRI and the importance of these findings reversibility remain to be clarified.

REFERENCES

- 1 Ostergaard M, Gideon P, Henriksen O, Lorenzen I. Synovial volume-a marker of disease severity in rheumatoid arthritis? Quantification by MRI. *Scand J Rheumatol*. 1994;**23**:197-202
- 2 McQueen FM. Magnetic resonance imaging in early inflammatory arthritis: what is its role? *Rheumatology* 2000;**39**:700-706
- 3 McGonagle D, Gibbon W, O'Connor P, Green M, Pease C, Ridgway J, Emery P. An anatomical explanation for good-prognosis rheumatoid arthritis. *Lancet* 1999;**353**:123-4

OP0012 DOES HELICOBACTER INFECTION INCREASE THE RISK OF NSAID INDUCED PEPTIC ULCERATION IN PATIENTS WITH RHEUMATOID ARTHRITIS?

CA Kelly. *Rheumatology, Queen Elizabeth Hospital, Gateshead, UK*

10.1136/annrheumdis-2001.1021

Background Patients with rheumatoid arthritis (RA) frequently develop dyspepsia due to peptic ulceration. There has been conflicting data published on the interactive roles of non steroidal anti inflammatory drugs (NSAIDs) and colonisation of the gastric antrum with *Helicobacter pylori*.

Objectives We wished to assess the prevalence of peptic ulceration in dyspeptic RA patients and matched controls. We intended to calculate the relative risks (RR) of NSAID consumption and *Helicobacter* infection, both singly and in combination.

Methods We endoscoped 100 dyspeptic patients with RA and 50 age and sex matched controls with dyspepsia but no evidence of RA. We recorded all medication taken over the preceding 6 months and assessed the presence of *Helicobacter* using a CLO test at endoscopy.

Results Endoscopic evidence of peptic ulceration was found in 39% of RA patients and 12% of controls. ($p < 0.01$). Multiple ulcers were significantly commoner in the RA patients (15% v 2%). NSAIDs were used by 60% of RA patients and 22% controls ($p < 0.01$). *Helicobacter* was found in 41% of RA patients and 36% of controls (NS). The consumption of NSAIDs conferred a RR of 5.2, while the presence of *Helicobacter* gave an RR of 2.0 in RA patients. The RR for the combination of NSAID consumption and *Helicobacter* infection was 12.3.

Conclusion RA patients have more major and more multiple pathology at endoscopy than age, sex and symptom matched control subjects. This is mainly due to their increased NSAID consumption but is also contributed to by the presence of *Helicobacter* infection.

OP0013 PREVALENCE, CLINICAL EXPRESSION AND CAUSES OF ISCHAEMIC HEART DISEASE IN RHEUMATOID ARTHRITIS

¹MJ Banks, ²EJ Flint, ³PA Bacon, ¹GD Kitas. ¹Rheumatology, ²Cardiology, Dudley Group of Hospitals NHS Trust, Dudley, ³Rheumatology, University of Birmingham, Birmingham, UK

10.1136/annrheumdis-2001.1022

Background Cardiovascular mortality is increased in Rheumatoid Arthritis (RA). This may be due to early development and increased prevalence of Ischaemic Heart Disease (IHD).

Objectives We aimed to assess the prevalence, clinical presentation and risk factors of IHD in RA compared to matched controls.

Methods Prospective, random recruitment of 104 hospital outpatients: 67 RA, 37 osteoarthritis controls. IHD detection: Rose questionnaire, ECG, adenosine-stressed myocardial perfusion SPECT imaging. Assessments: demographics, body mass index (BMI), disease and drug history, Health Assessment Questionnaire (HAQ), current and cumulative inflammatory burden (ESR, CRP), Joint Count, Rheumatoid Factor, von Willebrand Factor (vWF), angiotensin converting enzyme (ACE), lipids, fibrinogen, homocysteine, H. pylori, CMV and C. pneumoniae titers.

Results RA and controls were matched for all classical IHD risk factors (age, sex, family history, smoking, hypertension, lipids, diabetes, BMI) and NSAID use. Despite this, IHD in RA was almost twice as prevalent (49%) as in controls (27%) [$p = 0.03$] in both sexes, clinically silent in 52% vs 20% [$p = 0.003$], high risk in 60% vs 70% and present a decade earlier in RA. ESR, CRP, fibrinogen, vWF, ACE were significantly higher in RA [$p < 0.001$]. By logistic regression, age, male sex, RA and BMI independently predicted IHD in the study population. Within the RA group, patients with IHD had higher age, male sex, blood pressure, triglycerides, BMI, H. pylori titers and steroid use than those without IHD [$p < 0.05$]; RA duration, activity, seropositivity or functional ability were not significantly different. Age, male sex and BMI were the only independent predictors of IHD in RA.

Conclusion IHD is highly prevalent, clinically silent, occurs early and may be the main cause of increased cardiovascular death in RA. Within a hospital population, RA is an independent risk factor for IHD, with clinical and outcome characteristics similar to type II diabetes. In RA, classical IHD risk factors and systemic inflammation may both play a role. Further research may elucidate the mechanisms involved and help design risk reduction strategies specific to RA.

OP0014 THE ACUTE PHASE RESPONSE DOES NOT FULLY EXPLAIN DYSLIPIDEMIA AND INSULIN RESISTANCE IN INFLAMMATORY ARTHRITIS

¹PH Dessein, ²BI Joffe, ¹AE Stanwix, ³Z Moomal. ¹Rheumatology, ²Cardiohyrate and Lipid Metabolism Research Unit, Witwatersrand University/Johannesburg Hospital, Johannesburg; ³Statistics, National Research Foundation, Pretoria, South Africa

10.1136/annrheumdis-2001.1023

Background An increased frequency of insulin resistance (IR) and dyslipidemia has been identified in inflammatory arthritis (IA). These metabolic disturbances may be attributable to disease activity and therefore were implicated in the excess cardiovascular disease mortality as reported in IA.

Objectives In the present study we evaluated insulin sensitivity and lipid metabolism, as well as the potential role of the acute