

ABSTRACTS OF SOCIETIES

Scottish Society for Rheumatology

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Oral Presentations

Acute Gout Presenting as an Acutely Swollen Prosthetic Knee Joint.

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Background: Acute crystal arthritis is often not considered as a cause of a swollen prosthetic joint and sepsis is often the only diagnosis sought. We present a case that illustrates the importance of considering a diagnosis of gout when presented with an acutely swollen prosthetic knee joint. **Case Report:** A 71-year-old man had undergone a right total knee joint replacement (TKJR) in 2000 and a left TKJR in 2002. He was known to have chronic heart failure (ejection fraction 11%). His medication included warfarin, omeprazole, candasartan, atorvastatin, frusemide and spironolactone. He presented with a three-day history of knee swelling without systemic symptoms but with a fever (37.8°C). He was in acute renal failure. Urea was 31.2mmol/l (NR 2.5-7.5) and creatinine was 450 (NR 55-98). He had an elevated CRP 166mg/l (NR <6). Uric acid was elevated at 0.83 mmol/l (NR 0.15-0.36). He was started on intravenous antibiotics after fluid was aspirated from his knee. An arthroscopy and washout revealed a large amount of chalky material. All samples were negative for infection but urate crystals were seen on polarized light microscopy. His renal function improved with intravenous fluids and withholding his diuretics and angiotensin II receptor blocker. Colchicine was started for treatment of his acute gout and allopurinol was commenced after discharge. **Conclusion:** There are only three published case reports (4 cases) of gout occurring in prosthetic knee joints.^{1,2,3} However the incidence is almost certainly more common than thought as fluid is not routinely analysed by polarized light microscopy in most centres. An accurate diagnosis could prevent unnecessary antibiotics and surgical procedures.

For references refer to www.smj.org.uk

Audit of Monitoring and Morbidity in Discharged Patients with Stable Rheumatoid Arthritis

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Background: It is recommended that patients with inflammatory arthritis be offered a comprehensive annual specialist review by both Arthritis and Musculoskeletal guidelines and the British Society for Rheumatology guidelines. In our rheumatology unit, patients who are stable on disease modifying drugs and with no active management problems are routinely discharged back to primary care and therefore do not receive annual specialist review. The aim of this audit was to

examine a group of patients with stable rheumatoid arthritis on disease modifying agents who were discharged from our rheumatology service and to compare them with case matched patients who remain under regular rheumatology review. Monitoring and morbidity in both groups were assessed allowing the safety of discharging these patients to primary care to be evaluated. It is also recommended that patients with inflammatory arthritis should have annual cardiovascular health checks. A secondary outcome of this audit was to assess screening of cardiovascular risk factors in both groups. **Methods:** Patients with stable rheumatoid arthritis on disease modifying drugs who had been discharged from our rheumatology unit over the past year (2005-2006) were identified from our database. The control group was age and sex matched patients who remained under follow up. In the discharged group, questionnaires were sent out to both the patients and their general practitioners (GPs) enquiring about their current medication, frequency of blood monitoring, problems encountered during monitoring, any disease flares or serious infections and actions taken in the case of adverse events. They were also asked about screening for cardiovascular risk factors. The case notes and laboratory results of patients under follow up were checked for monitoring frequency, disease activity, clinical intervention and cardiovascular health checks. **Results:** Fifty four patients with stable rheumatoid arthritis who had been discharged back to primary care were identified. Forty patients were females and fourteen males. Mean age was 59.2 years. Twenty seven patients (50%) were on methotrexate, sixteen (30%) on sulphasalazine, four (7%) on azathioprine, three (6%) on intramuscular myocrisin and four (7%) on hydroxychloroquine. Data on fifty one patients were obtained with thirty two patients and forty five GPs returning the questionnaires. One patient had discontinued treatment and one patient had died since discharge. The deceased patient had multiple comorbidities and the cause of death was not directly related to his immunosuppressant treatment. Forty two (82%) patients had regular blood monitoring as per protocol. In nine (18%) patients, monitoring was less frequent than recommended. Two patients were identified during monitoring to have developed deranged liver function tests necessitating dose reduction or drug discontinuation. No serious infections were reported in the discharged group. Five (10%) patients experienced a flare of their disease since discharge. Four of them were managed in primary care and one patient was re-referred back to the rheumatology unit. Case notes and laboratory results of fifty one age and sex matched patients with rheumatoid arthritis under follow up were reviewed. Thirty-six were females and fifteen males. Mean age was 58.9 years. twenty patients were on methotrexate, eleven on sulphasalazine, seven on leflunomide, two each on gold and azathioprine, four on hydroxychloroquine and five on combination therapy. Forty one (80%) patients had regular blood monitoring and in ten (20%) patients, monitoring was less frequent. Three adverse events were noted on monitoring requiring drug discontinuation in two and dose reduction in one. Sixteen (31%) patients had active disease requiring clinical intervention. There were no reports of serious infections in this group. The rates of cardiovascular risk screening in the discharged group and follow up group were as follows (for table refer to www.smj.org.uk). **Conclusion:** The results indicate that monitoring of discharged patients was as reliable as in the control group. The risks of serious infections as well as re-referral rates were very low. Screening for cardiovascular risk factors remain inadequate in both groups. However, there are no clear guidelines as to which patients should be screened. These results show that it would be possible to safely discharge selected patients with stable rheumatoid arthritis back to primary care.

Data from a larger number of patients over a longer period of time is required to validate the results of this audit.

Disease Activity Score (DAS) 28 as a Predictor of Treatment Change in Rheumatoid Arthritis.

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Background: The Disease Activity Score (DAS) 28 is widely used as a measure of disease activity in rheumatoid arthritis. It is increasingly used to monitor response to antirheumatoid treatments and more importantly is now the main response criterion in determining which patients qualify for the commencement and continuation of biological therapy. Our objective is to determine how well physicians' decisions for treatment change, in a clinical setting, corresponds to the actual DAS 28 score. **Methods:** Sixty-nine patients with a definite diagnosis of rheumatoid arthritis were seen in rheumatology outpatients for review. Patients were first assessed by rheumatologists (consultant, senior SpR or very experienced clinical assistant) and clinical decisions were made regarding whether or not their treatment required modification. Patients then, on the same visit, had their DAS 28 scores formally measured by a single observer. DAS 28 and also its individual components were compared in the 2 groups (those in whom treatment changes were made and those in whom there were no treatment changes) using a Mann-Whitney U test. Patients were then followed over 2 years to see how many eventually required biological therapy. **Results:** Of the 69 patients, 21 (32%) had a low disease activity based on DAS 28 calculations of less than 3.2, 32 (44%) had moderate disease activity i.e. DAS 28 between 3.2-5.1, and 16 (24%) had high disease activity i.e. DAS 28 greater than 5.1. Eighty-six percent of those with DAS 28 <3.2 had their treatment unchanged or reduced compared to 48% of those with moderate disease activity, whilst 56% of patients with high disease activity had their treatment increased. The only difference between those who had treatment escalated and those who did not was in swollen joint count ($p=0.031$); no difference was seen between the groups in DAS 28, ESR, patient global assessment or tender joint count. Sixteen patients fulfilled DAS 28 criteria for starting anti-TNF although only 5 fulfilled all the criteria for starting anti-TNF drugs. After 2 years, 3 of these 16 patients had been commenced on biologics. Of those who were not, this was in some instances due to contraindications or patient choice. However, 8 patients appeared to have clinically well controlled disease. It was also found that some other diagnoses including fibromyalgia and osteoarthritis contributed to a high DAS 28. **Conclusions:** DAS 28 is not a good indicator of clinical decision making. Swollen joint count best reflects the clinician's decision; of the 3 clinical components of the DAS 28 this is the one least influenced by the patient's perception of pain or by other musculoskeletal diagnoses. Neither denying patients treatment from which they are likely to benefit or treating patients unnecessarily with toxic and expensive drugs represents best medical practice. Our observations do not allow us to decide whether the DAS 28 score or the clinician is 'right' but does raise the issue of 'clinical experience' versus 'protocol driven rheumatology'. We should perhaps be considering other more objective measures of disease activity, such as Doppler ultrasound, when there is doubt about the requirement for more aggressive treatment.

Soft Tissue Rheumatic Lesions and HIV Infection in Zambians

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Background: To explore the relationship between HIV infection and soft tissue rheumatic lesions in HIV positive Black Zambians. **Methods:** Prospective study of all patients over 18 years attending a rheumatic clinic in teaching hospital. Routine bloods performed in all and x-rays when indicated. HIV by enzyme linked immunosorbent assay (ELISA) and clinical staging by World Health Organisation criteria. Patients with isolated sacroiliac pain enthesitis or a soft tissue lesion selected for analysis. For HIV positive patients, only those in clinical stage 1 (asymptomatic or persistent generalised lymphadenopathy) were selected. **Results:** One hundred and twenty (41M,79F age 23-70) were studied. Diagnosis and number (% HIV positive) were: sacroiliitis, 14(100%); heel pain, 14(100%); costochondritis 3 (100%); polyenthesitis (4+ sites), 20 (100%); carpal tunnel syndrome 8 (63%); rotator cuff syndromes, 18 (30%); tendonitis 8 (25%); sciatica/cervical spondylosis, 12 (16%); sacroiliac strain, 7 (0%); DeQuervains tenosynovitis, 16(0%). Overall HIV seroprevalence 54%; 74% in those under 45 yrs and 17% over 45 yrs. Population prevalence in Lusaka ~ 30% in 30-40 yr age range. Mean erythrocyte sedimentation rate (ESR) in 65 HIV positive, 80 mm/hr and in 55 HIV negative 18 mm/hr. Within each subgroup the mean ESR was significantly higher in HIV positive patients. **Conclusion:** A young age and a raised ESR are both good indications of HIV infection in Zambian patients with soft tissue lesions. Enthesitis is a distinct HIV related phenomenon, either an early form or a form fruste of HIV related spondyloarthropathy.

Screening for Latent TB Prior to Anti-TNF Therapy; Implementation of the British Thoracic Society (BTS) Guidelines.

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Background: Patients treated with anti-TNF therapy are at increased risk of TB. Methods of screening for TB prior to the commencement of anti-TNF therapy have, thus far, been inconsistent. The British Thoracic Society (BTS) guidelines suggest that skin testing for TB on patients on immunosuppressant treatment is unreliable. It suggests that instead of skin testing on immunosuppressed patients their risk of TB according to their age and ethnicity should be calculated. Chemoprophylaxis should only be given if the risk of TB is greater than the risk of side effects from chemoprophylaxis. **Aim:** To examine the outcomes of TB screening when standard screening methods were applied. From this, conclusions can be drawn about the clinical and cost implications of application of the new BTS guidelines to clinical practice. **Methods:** All patients screened for TB prior to anti-TNF therapy for rheumatological disease between January 2004 and February 2006 in a large West of Scotland teaching hospital were included. Screening involved clinical history, a chest radiograph and skin testing in the form of a Mantoux or Heaf test. **Results:** In total, sixty patients were screened. Fifty-one had Mantoux testing and nine had Heaf testing. All had a chest radiograph. The results of this screening are shown below (see tables at www.smj.org.uk). In this hospital, if there was evidence of previous TB on chest x-ray or positive skin testing the patients received standard chemoprophylaxis with Isoniazid for 1 month

prior to anti-TNF and 8 months after initiation of treatment. Of the twenty one patients with positive screening, ten were given chemoprophylaxis with anti-TNF and eight patients did not go on to receive anti-TNF for other reasons. Three should have received chemoprophylaxis with anti-TNF but did not because of patient or physician choice. No patients who received chemoprophylaxis experienced any significant adverse effects. In the twenty one patients with positive skin test or chest radiograph, if the new BTS guidelines had been applied only two patients would have received chemoprophylaxis.

Of the sixty one patients screened, one patient subsequently developed TB. His screening with Mantoux and chest radiograph was negative. If the new BTS guidelines had been applied he would not have received chemoprophylaxis prior to his anti-TNF therapy. Of all sixty one patients screened, forty

three (70%) were on immunosuppressants and therefore under the new BTS guidelines would not have undergone skin testing. Eighteen were not on immunosuppressants and therefore skin testing could be considered accurate. Of the forty three patients on immunosuppressants, fifteen (35%) still had positive skin tests. **Conclusions:** Recent BTS guidelines suggest skin testing for TB is unreliable if the patient is on immunosuppressants and instead patients' risk of TB should be assessed. This audit shows that most patients being screened for anti-TNF are on immunosuppressants and when their risk of TB is assessed, very few have a high enough risk to warrant chemoprophylaxis. Application of the new guidelines will therefore result in less people requiring skin testing and less need for chemoprophylaxis thereby reducing costs as well as less patient morbidity.