The 150 mg dose of canakinumab prevented recurrence of gout flares with a relative risk reduction compared with TA of 94% at 8-weeks post-dose and was well tolerated.
Disclosure statement: U.A., Novartis Pharma AG - Employment. B.B., Astra Zeneca - Consultancy Fee. V.M., Novartis Pharma AG - Employment. A.P., Novartis Pharma AG - Research Grant. D.R., Novartis Pharma AG - Employment. P.S., Novartis Pharma AG - Employment. N.S., Novartis Pharmaceutical Corporation - Research grants. A.S., Novartis Pharma AG; Abbott, Bristol-Myers Squibb, Essex, Pfizer, MSD, Roche, UBC, Wyeth - Consulting fees or other remuneration. All other authors have declared no conflicts of interest.

Miscellaneous Rheumatic Diseases

73. IS THERE A DELAY IN SPECIALIST REFERRAL OF HOT SWOLLEN JOINT?

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Background: Patients with acute, hot, swollen joints commonly present to general practitioners, emergency departments and/or acute admitting teams rather than directly to rheumatology. It is imperative to consider septic arthritis in the differential diagnosis of these patients. The British Society of Rheumatology (BSR) has produced guidelines for the management of this condition, which include recommendations for early specialist referral and joint aspiration of all patients with suspected septic arthritis. We examined whether the initial management of patients with acute hot swollen joint(s) at University College London Hospital (UCLH) follows BSR guidelines.
Methods: For the period Feb to Nov 2009, appropriate patients were identified by searching the UCLH database using the diagnostic terms, ''pyogenic arthritis'', ''septic arthritis'' and ''gout''; and from all joint aspirate requests sent to microbiology. Medical notes were obtained and any patients who had elective arthroscopies or chronic (>6 weeks) symptoms were excluded. Data were collected on the time taken from the onset of symptoms to specialist (orthopaedic/rheumatology) referral and joint aspiration, collection of blood cultures and antibiotic treatment with or without microbiology advice.
Results: Twenty patients were identified with hot swollen (18 monoarticular, 3 prosthetic) joint(s) of <2 weeks duration. Of whom, 3/20 (15%) were admitted directly to rheumatology, 7/20 (35%) to the acute admissions unit, 3/20 (15%) to orthopaedic, 4/20 (20%) to a medical team and 1/20 (5%) to general surgery. In 19 (95%) cases, specialist (rheumatology/orthopaedic) advice was sought. Of 14 cases not seen directly by specialists 9 (64%) were referred at 24–48 h and 5 (36%) at 48–192 h. All 20 patients had joint aspiration. In 9/20 (45%) of cases, joint aspiration was performed in less than 6 h, 3/20 (15%) cases at 6-24h and 6/20 (30%) cases at 24–192 h and was not recorded in two patients. Of these, crystals were identified in two and one was culture positive. Blood cultures were received for only 6/20 (30%) of cases and only clearly documented to have been taken prior to antibiotic therapy and none were positive. Of 14/20 (70%) started on antibiotic treatment empirically, only 6 (42%) were preceded by joint aspiration. In the 6 patients not treated with antibiotics due to low index of suspicion of septic arthritis, synovial fluid and blood cultures were negative. Microbiology advice was sought in 10/20 (50%) of cases by the admitting teams but the timing of this advice is unclear.
Conclusions: Despite the provision of 24 h rheumatology and orthopaedic cover at UCLH, we found a significant delay in acute medical firms seeking specialist advice on the management of patients with acute, hot swollen joints with subsequent deviation from BSR guidelines. Consequently, we plan to increase awareness of these guidelines amongst medical firms at UCLH.
Disclosure statement: All authors have declared no conflicts of interest.

74. A PROSPECTIVE AUDIT OF THE DIAGNOSIS AND MANAGEMENT OF HOT SWOLLEN JOINTS IN ADULTS AT A DISTRICT GENERAL HOSPITAL

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Background: Hot swollen joint is a common presentation and has a wide differential diagnosis of which the most serious is septic arthritis (SA), with a significant mortality and morbidity in case of inappropriate management. Yet this treatable medical emergency is often treated sub-optimally leading to adverse consequences. This audit has been undertaken to assess our practice against the joint BSR and BHPR, BOA, RCGP and BSAC guidelines published in 2006.
Methods: Data have been collected prospectively for all patients either admitted with less than 2 weeks history of hot swollen joint or developing this condition as an inpatient over 1-year period. Audit standards suggested in the guideline has been the prime focus of this audit.
Results: A total of 32 patients presenting with hot swollen joints have been audited. Out of these, 13 patients were diagnosed to have septic arthritis (SA) whereas 19 patients had another diagnosis (5 had pseudogout, 4 had gout, 4 had seronegative arthropathy, 3 had soft tissue infection, 1 had osteoarthritis, 1 had haemarthrosis and 1 had no diagnosis). Out of 13 patients with septic arthritis, 8 were males and 5 were females. Out of 19 patients with another diagnosis, 8 were males and 11 were females. The mean age of patients with septic arthritis was 71 (range 43–94 years). The mean age of non-septic arthritis patients was 66 (range 24–100 years).

Out of 32 patients, 22 patients (8 SA and 14 non SA) had their joint aspirated prior to antibiotics. 10 patients (5 SA and 5 non SA) failed to have their joints aspirated prior to antibiotics due to various reasons (1 needle-phobic, 1 had obvious discharging pus, 2 went straight to theatre, 1 had cellulitis, 1 was suspected to have some injury and no reason documented in 4 patients).

Out of the 13 patients with SA, 5 were managed by rheumatologists and 8 by orthopaedic surgeons. 2 of these 13 patients had prosthetic joint SA and therefore were managed appropriately by orthopaedic surgeons. In the 13 patients with SA, appropriate cultures were sent in all patients (either from the initial joint aspiration or from later surgical drainage), CRP was measured at baseline in all patients, ESR was measured at baseline in 3 patients and all patients had serial measurements of CRP and white cell count but not ESR. The initial antibiotic choice was in keeping with national or local guidelines in 10 out of 13 patients and there was a delay in management in 2 patients with SA. 1 of these patients was initially thought to have osteoarthritis and the other was thought to have a joint injury.
Conclusions: This audit has revealed that about a third of patients presenting with hot swollen joint fail to have a joint aspiration prior to starting antibiotics. There is still considerable scope for improvement in our management of hot swollen joints. Doctors working in the 'frontline' should be made aware of these guidelines in order to improve our practice.
Disclosure statement: All authors have declared no conflicts of interest.

75. PREVALENCE OF EXTRAHEPATIC RHEUMATOLOGICAL MANIFESTATIONS IN EGYPTIAN PATIENTS WITH CHRONIC HEPATITIS C VIRUS INFECTION

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Background: Chronic HCV viraemia has been known to provoke a variety of autoimmune-like diseases referred to as extrahepatic manifestations of chronic HCV infection. Egypt has an exceptionally high prevalence of HCV infection, estimated to be between 10 and 15% of its 70 million population. The study aimed at evaluation of the prevalence of extrahepatic rheumatological manifestations of chronic HCV infection in Egyptian patients and its different clinical presentations in a way to illustrate the spectrum of these presentation in the study group.
Methods: All chronic HCV patients attending the outpatient clinic of the National Hepatology and Tropical Medicine Research Institute (NHTMRI) through a period of 1 year were interviewed and subjected to a questionnaire to screen those having rheumatological complaints then referred to the rheumatologist for evaluation. Laboratory investigations included complete blood picture, serum transaminases, serum bilirubin, total proteins, serum albumin, serum urea and creatinine, complete urinalysis, oral glucose tolerance test. Serological assay included cryoglobulin profile, rheumatoid factor,

antinuclear antibody, HCV-PCR. Patients with decompensated liver disease, on interferon therapy, having end-stage renal disease or coexisting viral infection like hepatitis B surface antibody positive patients or human immunodeficiency virus antibodies were all excluded from the research.
Results: Three hundred and six patients having chronic HCV infection were interviewed in this research. The diagnosis of HCV induced rheumatological complaints was done after excluding coexisting autoimmune diseases (based on American College of Rheumatology Criteria for the diagnosis or exclusion of autoimmune diseases), non-inflammatory causes as well as psychological problems. Fifty patients (16.39%), out of 306 patients [28 males (56%), 22 females (44%) with a mean age of 45.4± 8.7 years] to have clinically significant rheumatological complaints that couldn't be attributed to another coexisting disease other than HCV viraemia. The overall estimated prevalence of autoimmune rheumatological manifestations in the current research was 16.39%, chronic fatigue syndrome 9.5%, Sicca symptoms 8.8% (xerostomia 4.9%, xerostomia and xerophthalmia 3.9%), arthralgia 6.5%, fibromyalgia 1.9%, myalgia 1.3%, arthritis 0.7%, cryoglobulinaemic vasculitis 0.7%, autoimmune haemolytic anaemia 0.7%, thrombocytopaenia 0.7%. Xerophthalmia was significantly present in male population ($P = 0.04$), whereas fibromyalgia, cryoglobulinaemic vasculitis, arthritis and autoimmune haemolytic anaemia were significantly present in female population in the study ($P < 0.05$). There was no significant correlation between the reported manifestations and liver function tests, HCV-PCR, or antibody profile.
Conclusions: The estimated prevalence of extrahepatic manifestaions among Egyptian patients with HCV is 16.39%.
Disclosure statement: All authors have declared no conflicts of interest.

76. CHRONIC PAIN IN HEPATITIS PATIENTS PRE AND POST PEG-INTERFERON TREATMENT

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Background: It is estimated that 3% of the world's population is infected by the hepatitis C virus (HCV). The rheumatological manifestations associated with HCV include vasculitis, arthralgia, arthritis, myalgia, fatigue and Sicca syndrome. These carry a significant burden of disease to patients and may be the first manifestations of HCV infection before they show any hepatic symptoms. Pegylated-interferon is the most effective and widely prescribed treatment to date. We investigated whether therapy modifies the course of the rheumatological manifestations in patients infected with HCV over time.
Methods: All patients attending HCV Clinics at the Royal Sussex County Hospital, Brighton were invited to complete a standardized questionnaire assessing their musculoskeletal symptoms including pain intensity, questions from the well validated Manchester Pain Questionnaire, visual analogue scales and questions to determine clinical classification of Sicca syndrome derived from the Vitali criteria. This self-administered questionnaire was done at baseline, prior to treatment initiation and at 6 months post end of treatment.
Results: A total of 178 hepatitis C infected patients were recruited, 117 of whom initiated treatment with pegylated-interferon. Of these 117 patients, 48 were followed-up for 6 months following end of treatment. Of these patients, 54% are men and 77% are white British. Their mean age is 45 years with a range from 20 to 66 years. At baseline, 19% of patients fulfil the Manchester pain criteria. 19% have experienced swelling of one or more joints and 34% stiffness. 19% have Sicca symptoms. The mean pain intensity score is 3.95 with 40% of patients experiencing a pain score above 5. At 6-months post end of treatment, 10% of patients fulfill the Manchester pain criteria. Although lower, this percentage is not significantly different from baseline ($P = 0.25$). The percentage of patients experiencing swelling of one or more joints (15%), stiffness (34%) or Sicca symptoms (21%) is not significantly different from baseline. However, the percentage of patients experiencing a pain score above 5 (17%) and the mean pain intensity (2.85) are significantly lower at 6-months post-treatment compared with baseline ($P = 0.02$ and 0.05, respectively).
Conclusions: This study has shown that HCV positive patients report a much higher incidence of musculoskeletal pain than that in the general population in which chronic widespread pain in reported in about 5% of the population. There is no significant reduction in prevalence of pain or Sicca symptoms after treatment, although there was a clear reduction in reported pain intensity at 6 months, suggesting a role for the virus in the aetiology of musculoskeletal pain in this patient group. The effect of peg-interferon on reducing pain in HCV infected patients needs to be confirmed on a larger population. Long-term follow-up is underway to assess its sustainability.
Disclosure statement: All authors have declared no conflicts of interest.

77. DISTORTING PROPRIOCEPTION IN PATIENTS WITH RHEUMATIC DISEASES EXACERBATES SENSORY DISTURBANCES: FURTHER EVIDENCE FOR CENTRAL PAIN MECHANISMS

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Background: Discordance between motor intention and sensory perception can generate pain and sensory disturbances in healthy individuals. Evidence of cortical sensory reorganization exists in many chronic pain states including complex regional pain syndrome (CRPS) and fibromyalgia. It has been hypothesized that such neuroplastic changes render the individual more vulnerable to sensory motor discordance. This has been demonstrated in fibromyalgia patients. We hypothesized that similar central pain mechanisms operate across a spectrum of other rheumatic diseases including osteoarthritis (OA), rheumatoid arthritis (RA) and CRPS.
Methods: 51 CRPS, 40 OA, 40 RA and 40 healthy controls performed congruent / incongruent, bilateral upper limb movements for up to 1 min as tolerated while viewing a mirror /whiteboard that created varied degrees of sensory/motor conflict in four discrete stages. 22 lower limb CRPS patients used their lower limbs. Participants' descriptions of altered sensations were recorded at each stage of the protocol. Subjects were assigned to the following vulnerability classification according to how many of the four stages generated sensory disturbances (SeD): high = SeD all stages; moderate = SeD $\geq$ 3 mirror $\pm$ 3 whiteboard (WB) stages; mild = SeD $\leq$ 2 mirror $\pm$ 2 WB stages; minimal = SeD 1 mirror $\pm$ 1 WB stage; nil = no SeD.
Results: 92% CRPS, 90% OA, 67% RA patients and 60% healthy controls reported sensory disturbances at some stage in the protocol. See Table for breakdown of data in terms of vulnerability. Common descriptions included heaviness, tingling, dizziness, nausea and perceived loss or gain of a limb. 94% CRPS, 55% OA, 52% RA and 12% of healthy controls reported new pain or exacerbation of existing pain.
Conclusions: Sensory motor conflict can exacerbate and generate new somaesthetic sensations and pain in a range of rheumatology conditions greater than those in healthy controls. This provides further evidence of central pain mechanisms operating across a spectrum of rheumatic diseases. Cortical reorganization is already known to exist in CRPS and contribute to symptoms but this data suggest that in those conditions where pain was thought to be more peripherally driven (OA, RA), central mechanisms may play a larger role than previously considered.

Vulnerability	High	Moderate	Mild	Minimal	Nil
CRPS	16	18	10	3	4
OA	8	14	11	2	4
RA	2	12	8	5	13
HC	0	7	13	4	16

Figures refer to numbers of subjects. CRPS: complex regional pain syndrome, OA: osteoarthritis, RA: rheumatoid arthritis, HC: healthy controls.

Disclosure statement: All authors have declared no conflicts of interest.

78. SARCOPAENIA IS HIGHLY PREVALENT IN THE VERY ELDERLY AND PREDICTS MORTALITY IN MALES

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Background: Sarcopaenia is the age-associated loss of skeletal muscle mass that can lead to frailty, disability and a loss of independence. The epidemiology of sarcopaenia in those over 85 years is poorly understood. Dual-energy X-ray absorptiometry (DXA) has been shown to agree with other methods of studying skeletal muscle mass in patients including MRI and CT. We estimated the prevalence of sarcopaenia in those over 85 and test associations with osteoporosis and osteoarthritis and prediction of mortality.
Methods: 167 subjects aged $\geq$ 85 years from one general practice in Northumberland, UK, were invited to participate. Participants had

whole body, hip and spine bone mineral density and lateral vertebral analysis using DXA (iDXA, GE Lunar). Knee and hip radiographs were scored [Kellgren and Lawrence atlas (KandL)] by a single observer with established reliability. Sarcopaenia was defined as the lean appendicular mass divided by the subjects height squared ≥ 2 S.D. below the mean for a young and healthy reference population. Vital status of subjects was ascertained 3 years after initial assessment. Findings were examined in univariate analysis using 2x2 tables and expressed as odds ratios with 95% CI and Fisher exact test *P* values.

Results: Study sample: 29 women and 17 men (median age 87 years at baseline, interquartile range 4). 59% of men (95% CI 36–82%) were sarcopaenic, compared with 48% of women (95% CI 30–66%). In regression analysis, age and weight accounted for 59% of the variance ($P<0.001$). 8 subjects (17%) had died at 3-year follow up. Osteoporosis (classified as T score $\leq$ -2.5) was inversely associated with sarcopaenia (odds ratio (OR) = 0.89, 95% CI 0.24–3.32). There was an inverse dose response relationship between sarcopaenia and vertebral deformity: mild (OR = 0.86, 95% CI 0.27–2.75), moderate (OR = 0.71, 95% CI 0.22–2.29) and severe (Peto OR = 0.12, 95% CI 0.00–6.25). Small sample size limited the power of this analysis. Sarcopaenia was associated with a 3.5-fold increased risk of mortality in men (relative risk (RR) = 3.50, 95% CI 0.51–23.82, $P = 0.143$). No association was seen in women (RR = 1.07, 95% CI 0.07–15.54, $P = 0.517$). There was no consistent relationship between osteoarthritis KandL grade and either sarcopaenia or mortality.

Conclusions: This study has shown that sarcopaenia is more common than the previous estimate that $>40\%$ of those over 80 years old would be classed as sarcopaenic: a significant difference despite the small sample. The observation that DXA derived sarcopenia in the very elderly increases the risk of mortality agrees with grip-strength data in younger subjects and the concept that loss of $>40\%$ muscle mass is a serious health hazard. The gender differences may be related to the low female mortality in this group: 2/29 women died compared with 6/17 men. The inverse association between osteoporosis and sarcopaenia is counterintuitive, as bone and muscle loss might be expected to be associated. Further work is warranted to explore the mechanisms responsible for this intriguing finding.

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79. DOES THE DEGREE OF CORTICAL REORGANIZATION DETERMINE DIFFERENT CLINICAL PHENOTYPES IN COMPLEX REGIONAL PAIN SYNDROME (CRPS)? A SENSORIMOTOR STUDY

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Background: Changes in cortical sensorimotor representation have been documented in CRPS and other chronic pain conditions. It has been postulated that this may generate incongruent sensorimotor feedback. A hypothetical right cortical centre for monitoring incongruence of sensation may generate pain and other sensory disturbances when activated. Extent of mechanical hyperalgesia in CRPS has been correlated to extent of cortical reorganization. We hypothesized that CRPS patients with high vulnerability to sensory motor discrepancy would have a greater degree of cortical reorganization exhibited clinically by a larger area and higher intensity of allodynia.

Methods: 41 CRPS patients had quantitative sensory testing using standard Semmes-Weistein filaments to assess whole body tactile thresholds and extent of allodynia. The tactile sensory threshold producing allodynia was recorded. All subjects performed congruent / incongruent, bilateral upper limb movements for up to 1 min as tolerated while viewing a mirror /whiteboard that created varied degrees of sensory/motor conflict in four discrete stages. 22 lower limb CRPS patients used their lower limbs. Participants' descriptions of altered sensations were recorded at each stage of the protocol. Subjects were assigned to the following vulnerability classification according to how many of the four stages generated sensory disturbances (SeD): high = SeD all stages; moderate = SeD $\geq$ 3 mirror $\pm$ 3 whiteboard (WB) stages; mild = SeD $\leq$ 2 mirror $\pm$ 2 WB stages; minimal = SeD 1 mirror $\pm$ 1 WB stage; nil = no SeD.

Results: Only one CRPS patient had no allodynia. Subjects with high vulnerability ($n = 12$) to sensorimotor conflict had more extensive allodynia [mean 21% of body surface area (BSA)] compared with moderate ($n = 17$) (mean 9% BSA), mild ($n = 8$) (mean 10% BSA) and minimal ($n = 3$) (mean 4% BSA) groups. Comparing the high vulnerability group to the other groups (moderate, mild, minimal) combined: 67% had lowered tactile sensory thresholds on the affected limb compared with 41% in the combined group; 50% had allodynia to the normally undetectable 0.008 g filament compared with 14% of the combined group; mean disease duration was 7 years in the high group compared with 4 years in the others.

Conclusions: CRPS patients with high vulnerability to sensory motor discrepancy have more extensive and severe allodynia, with a longer disease duration compared with less vulnerable groups. The data supports the hypothesis that greater cortical reorganization is present in the high vulnerability group, which may contribute to the clinical phenotype. This may allow a more structured approach to the phenotyping and treatment of CRPS.

Disclosure statement: All authors have declared no conflicts of interest.

80. IMPROVED HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH CRYOPYRIN-ASSOCIATED PERIODIC FEVER SYNDROME (CAPS) AFTER TREATMENT WITH CANAKINUMAB-A FULLY HUMAN ANTI-IL-1 β MONOCLONAL ANTIBODY

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Background: The direct impact of CAPS on patients' well-being is often underestimated due to limited data on patients' perception of the disease. In the 48-week pivotal Phase III study with canakinumab in CAPS, health reported quality of life (HRQoL) was assessed at baseline and during treatment using patient reported outcomes that evaluate the direct impact of the disease on patients' well-being and improvements following canakinumab treatment.

Methods: In this three-part study, patients received canakinumab 150 mg s.c. or 2 mg/kg s.c. (body weight $\leq$ 40 kg) every 8 weeks. HRQoL was assessed in adults using the following domains: general mental and physical health (SF-36), fatigue (FACIT-Fatigue) and functional disability (HAQ-DI).

Results: Lower baseline scores for general mental and physical health (SF-36) and fatigue (FACIT-Fatigue) than the general population demonstrate that CAPS has significant impact on patients' well-being (Table). After the first canakinumab dose, SF-36 and FACIT-Fatigue scores improved to the levels expected in the general population. An improvement in functional disability was observed as shown by HAQ-DI scores. At the end of this 1-year study (48-weeks), HRQoL scores were comparable to those observed following the first injection and suggest that patients' well-being has improved to levels seen in the general population without chronic disease.

Conclusions: CAPS has a significant impact in patients' well-being due to the physical effects of systemic inflammation mediated by direct neurotrophic effects of IL-1β leading to the deleterious effects on patients' physical and mental health. Canakinumab every 8 weeks provides improvement in quality of life, to that of the general population, across a variety of standardized measurement tools addressing physical and emotional well-being as well as fatigue.

Comparison of HRQoL scores of CAPS patients treated with canakinumab

Component	General US population, mean (S.D.)	n	Baseline, mean (S.D.)	End of study (48 weeks), mean (S.D.)	Change from baseline, mean (S.D.)
SF-36 (0-100)					
Physical component	50.0 (10.0)[a]	22	40.4 (9.3)	48.5 (12.6)	8.2 (9.4)
Mental component	50.0 (10.0)[a]	22	42.6 (12.4)	48.9 (12.4)	6.3 (12.4)
- Physical functioning	84.2 (23.3)[a]	23	74.1 (28.8)	82.6 (25.7)	8.5 (23.0)
- Role-physical	80.9 (34.0)[a]	26	50.0 (48.0)	76.0 (40.3)	26.0 (47.7)
- Bodily pain	75.2 (23.7)[a]	25	48.0 (23.0)	76.5 (30.2)	28.6 (31.8)
- General health	71.9 (20.3)[a]	25	46.4 (17.2)	60.8 (23.2)	14.4 (17.6)
- Vitality	60.9 (20.9)[a]	26	42.5 (22.2)	60.0 (28.5)	17.5 (30.5)
- Social functioning	83.3 (22.7)[a]	25	67.5 (29.1)	77.5 (33.5)	10.0 (36.3)
- Role-emotional	81.3 (33.0)[a]	25	58.7 (46.4)	73.3 (41.9)	14.7 (46.2)
- Mental health	74.7 (18.1)[a]	26	64.5 (21.5)	74.2 (21.7)	9.7 (20.5)
FACIT-fatigue	43.6 (9.4)[b]	26	27.4 (13.0)	39.5 (14.7)	12.2 (16.9)
HAQ-DI (0-3)	Not available	26	0.41 (0.6)	0.27 (0.5)	-0.14 (0.4)

n = number of patients having both baseline and end of study values. [a]Adapted from Ware J, et al. SF-36 Physical and Mental Health Summary Scales: A user's manual. Boston, MA: The Health Institute. 1994 [b]Adapted from Cella D, et al. Cancer 2002;94:528-38.

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81. MANAGEMENT OF THROMBOSIS IN 62 PATIENTS WITH BEHÇET'S SYNDROME OVER 15 YEARS

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Background: Behçet's syndrome (BS) is a rare, heterogeneous inflammatory disease characterized by recurrent orogenital ulceration, uveitis and multi-organ involvement. Vascular involvement occurs in 10–30% of patients and is more commonly observed in males. Superficial or deep venous thrombosis (DVT) is the most frequent manifestation of vascular Behçet's, although pulmonary embolism is rare. Aneurysms are the most common arterial feature and may confer serious bleeding risks. Venous thrombosis is largely due to vessel wall inflammation. Hypercoagulability may be partially culpable, although thrombophilic factor abnormalities do not correlate with clinical thromboses. A recent small study compared the use of immune suppression and anticoagulation to treat thrombosis in BS. However, there have been no comprehensive studies to determine optimal treatment for thrombosis and therefore a consensus has not been reached. We report a review of thrombosis in patients attending our tertiary referral Behçet's clinic and propose management strategies for investigation, treatment and prophylaxis.
Methods: Review of our prospectively maintained database of 657 patients seen between 1994-2009 identified 64 patients (10%) with vascular complications. 62 case notes were available for review. All patients fulfilled ISG diagnostic criteria. Patients with isolated superficial thrombophlebitis were excluded.
Results: The majority of patients in our vascular cohort were male (62%) and had experienced at least one thrombosis prior to being referred to our centre (92%). DVTs were the most frequent vascular event (71% of patients) and thrombosis was the event that led to a diagnosis of Behçet's in 63% of cases. 53% of patients had more than one thrombosis. Half of all patients had a thrombophilia screen and 13% of genetic thrombophilia tests were positive. All patients had imaging specific to the site of thrombosis. One third had clinical indication for additional pulmonary imaging. 35% of patients imaged had positive findings, such as aneurysms. Most patients were anticoagulated (89%), with plans for the duration of warfarin treatment documented in 42% of cases. The median duration of anticoagulation was 6.2 years and 40% of patients remained on life-long warfarin.
Conclusions: Our findings demonstrate that management of thrombosis in BS is variable. We suggest targeting underlying vascular inflammation as a priority using steroids and immunosuppressive agents, such as azathioprine. Anti-coagulation of in-situ thrombosis should be viewed as an adjunct. Duration of anti-coagulation should be dependent on disease activity and presence of thrombophilic traits. All patients should have thrombophilia tests and screening for aneurysms should be considered, especially in young males.
Disclosure statement: All authors have declared no conflicts of interest.

82. RECHALLENGE WITH ETANERCEPT IN FOUR PATIENTS WITH ETANERCEPT-INDUCED NEUTROPENIA

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Background: There are only scattered case reports of marked neutropenia with etanercept; however, the rechallenge with etanercept is not well described
Methods: We would like to report 4 patients who developed neutropenia with etanercept use and they were subsequently rechallenged
Results: A 64 year old woman with erosive RA was commenced on etanercept 50 mg weekly in August 2008. Her baseline white cell count (WCC) on methotrexate was 4.9 x 109/l and neutrophil cell count (NCC) of 2.65 x 109/l [NCC normal range 1.8-8 x109/l]. However, after 2 weeks of starting etanercept, her WCC dropped to 3.6 x 109/l, with NCC of 1.99 x109/l, which dropped further to 1.37 x109/l. Because of her positive clinical response, we decided to continue with etanercept and to monitor her full blood count every 2 weeks. So far, her cell counts have remained stable (NCC = 1.8–2.0 x 109/l).

A 36-year old man was diagnosed with ankylosing spondylitis in 2009. The etanercept was commenced in July 2009 and he had a dramatic clinical response. His WCC pre etanercept use was 4.3×109/l with NCC of 2.72×109/l; however, with etanercept, her NCC dropped to 1.41×109/l and remains stable so far. He remains on etanercept monotherapy and being closely monitored.

A 65-year old man with seropositive RA was commenced on etanercept in February 2004 and he reported marked improvement of his symptoms. His WCC before commencing on etanercept was 5.5 x109/l with NCC of 3.54 x109/l. A very gradual reduction in his NCC was observed; these dropped to 1.77 x 109/l in May 2004. He developed erysipelas and respiratory tract infection and etanercept was put on hold. His WCC gradually rose to baseline figures and he was re-challenged with etanercept. His NCC dropped but remained stable around 2.1-2.6 x109/l. However, in January 2008 his WCC dropped significantly to 2.9 x109/l with NCC of 1.17 x 109/l and these responded to etanercept withdrawal. It was then decided to commence him on adalimumab. His WCC dropped again from 4.7 to 3.7 x109/l with NCC from 2.95 to 2.06 x109/l and we are monitoring his monthly blood tests.

A 71-year old lady with seropositive RA was commenced on etanercept in November 2007. Her baseline NCC was 5.53 x109/l. After two injections of etanercept, a gradual decline in her NCC was observed; this gradually got worse in May 2008 when the NCC fell to 1.06 x109/l. She was taken off etanercept and her NCC rapidly improved to her baseline figures. Etanercept was re-introduced in July 2008. Her NCC has dropped modestly, but they have remained quite stable since (neutrophil count 1.7–2.0 x109/l).
Conclusions: We describe these cases, which have changed the clinical practice in our unit; now, all patients using TNF blockers get monthly blood tests. Second, we have re-challenged these patients without any clinical complications, revealing that patients with mild to moderate neutropenia can be safely exposed to TNF blockers as long as they are monitored with regular cell count checks.
Disclosure statement: All authors have declared no conflicts of interest.

83. ABSTRACT WITHDRAWN

Orthopaedics and Rehabilitation

84. A COMPARISON OF PATIENTS REFERRED AFTER FRACTURES OF THE FOREARM AND FRACTURES OF THE SPINE AND HIP

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Background: Recent guidance has emphasized the importance of bone mineral density (BMD) of the hip and other clinical predictors to be important in predicting fractures. We aimed to see if this differs between different fracture types. Importantly, we wished to see if patients referred after a Colles fractures where different from those referred after a fracture hip and spine. In a previous analysis, we identified that spine and hip fractures had different predictors. Our aim was to determine whether predictors of fracture are different in patients referred after a Colles fracture than populations referred after sustaining hip or spine fractures.
Methods: The Morecambe bay osteoporosis database of patients referred between June 2004 and September 2007 was queried for patients referred after a spine, hip or forearm fracture. These two cohorts were subsequently compared with the Colles fracture group for risk factors for osteoporosis using chi squared test for binary predictors and t student's T test for continous predictors.