OP11. REACTIVATION OF LATENT TUBERCULOSIS INFECTION AND NEW INFECTION OF TUBERCULOSIS IN PATIENTS WITH ANTI-TUMOR NECROSIS FACTOR THERAPY FOR TUBERCULOSIS-ENDEMIC AREA

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Background: Prophylaxis of tuberculosis in patients treated with anti-tumor necrosis factor (Anti-TNF) prevents the latent tuberculosis infections (LTBI). But incidence rate of tuberculosis with anti-TNF therapy in tuberculosis-endemic area is higher than in other areas despite strict prophylaxis. We analyzed incidences and characteristics of patients with reactivation of LTBI and new tuberculosis infection.

Methods: We identified 549 patients treated with anti-TNF in tertiary care center from January 1, 2000 through June 2010. The number of patients with ankylosing spondylitis, rheumatoid arthritis, psoriatic arthritis, spondyloarthritis and behcet’s disease were 317, 215, 11, 3 and 3 respectively. Their medical records including history of tuberculosis infection were reviewed.

Results: Among 549 patients, 526 patients took tuberculosis screening test and 266 patients had LTBI prophylaxis. Nevertheless, we observed 11 cases of tuberculosis (2.0%) and the incidence rate of tuberculosis was 968 per 100,000 person-years. Patients infected by tuberculosis were 6 non-LTBI, 4 LTBI received prophylaxis and 1 without screening test. The mean duration of anti-TNF therapy was 21.73 months and patients of extrapulmonary tuberculosis were 9. Among 11 tuberculosis patients, 3 non-LTBI patients and 2 LTBI patients who received prophylaxis were infected by tuberculosis after anti-TNF therapy of 12 months and their mean duration of anti-TNF therapy was 40.8 months. In addition, three non-LTBI patients treated with anti-TNF therapy for less than 12 months were infected by new tuberculosis or reactivated LTBI with false-negative screening test.

Conclusion: The incidence of tuberculosis in patients treated with anti-TNF was higher than other previous reports. This result show that the reactivation of LTBI and development of new tuberculosis infection as a long period of anti-TNF therapy for the endemic area. Screening and prophylaxis of LTBI are important but we also have to be concerned about new tuberculosis infection during anti-TNF therapy.

OP12. LARGE VESSEL DISEASE IN GIANT CELL ARTERITIS: A POPULATION-BASED COHORT STUDY OF INCIDENCE TRENDS

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Background: To evaluate incidence trends and timing of development of large vessel disease in patients with giant cell arteritis (GCA).

Methods: A population-based cohort of patients with GCA diagnosed between January 1, 1950 and December 31, 2004 was studied. Cases of large-vessel disease (large artery stenosis, aortic aneurysm/dissection) were identified. Diagnosis required imaging studies, surgical pathology and/or autopsy. Subjects were followed until December 31, 2009. Cox proportional hazards models were used to assess trends in large-vessel involvement for the cohorts diagnosed between 1950-1979 and 1980-2004. Poisson regression models were used to model the rates of large-vessel involvement over disease duration. Smoothing splines were used to allow for non-linear time trends.

Results: The study population included 204 patients; 163 women (80%) and 41 men (20%). Mean age at diagnosis of GCA was 76.0 years (± 8.2 years); median length of follow-up was 8.8 years. During follow-up, 56 patients developed 63 events (36 aortic aneurysms and/or dissection and 27 large artery stenoses). The cumulative incidence of large vessel disease significantly increased for the cohort diagnosed between 1980-2004 compared to patients diagnosed between 1950-1979 (p = 0.004). However, a greater proportion of GCA patients diagnosed in the latter decades underwent imaging tests including echocardiogram (p < 0.001), abdominal ultrasound (p = 0.03) and angiography, computed tomography or magnetic resonance imaging (p < 0.001). Figure 1 shows the incidence rates of large-vessel disease by duration of GCA. The incidence of aortic aneurysm or dissection increased after approximately 7 years and continued to increase with disease duration.

Conclusions: The incidence of large vessel disease in patients with GCA increased over the 55-year study period, which may reflect increased physician awareness and greater use of imaging modalities.

Disclosure statement: The authors have declared no conflicts of interest.
Results: All patients responded well to the therapy. There was a decrease in DLCO, and changes in modified Rodnan Skin score, reflecting the disease activity. All were positive for anti-topoisomerase I(anti-Scl-70) antibodies. The aggressive therapies were treated with at least two courses of rituximab. As expected, there was a rapid decrease in B-cell counts after the first course of rituximab, and B-cell levels stayed low for the whole observation period. Immunoglobulin levels were within normal range at the beginning of the treatment and remained unaltered throughout the observation period. No changes in autoantibody profiles were seen. No adverse events were observed in any of the patients.

Conclusion: B-cell depletion therapy using rituximab was effective and safe in four cases of systemic sclerosis refractory to conventional immunosuppressive therapies. Retreatment every 3 months may be discussed in some patients with a very high disease activity.

PP03. CLINICAL FEATURES OF CHILDHOOD SCLERODERMA IN IRANIAN CHILDREN
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Background: Juvenile scleroderma (JS) is a rare type of autoimmune disease in children that is characterized by skin fibrosis and vascular inflammation. JS is divided to 2 subgroups: Localized (JLS) and systemic (JSS). JLS is the most common type in children. The aim of this study was evaluation of clinical features of childhood scleroderma in Iranian children.

Methods: In a retrospective study (1991-2010), all patients who had JS diagnosis in our tertiary center enrolled in this study. The diagnosis was established based on the ACR criteria (2005). Organ involvement was evaluated and skin biopsy as well as laboratory evaluation have been performed for all patients. All patients were followed at least for 7 years.

Results: Diagnosis was confirmed in 24 patients (9 male and 15 female; M:F: 1.17). The mean age of patients at the beginning of symptoms and diagnosis time were 7.3 and 8.9 y, respectively. JLS form found in 75% (18 patients) and others (25%) had JSS. In JLS form, 83% had morphea form (less than 4 plaque) 11% generalized morphea and 5% linear form. Organ involvements in JSS were: gastrointestinal in 100% (100% dysphagia and 67% malabsorption) and respiratory involvement in 50% (mild restrictive disorders). There was not cardiac and renal involvement in each patient. Overlap syndromes was found in 20.8% patients that juvenile rheumatoid arthritis was the most common overlap disease (3 patients). One patient had dermatomyositis and another one recurrent Henoch-Schonlein Purpura. There was not any mortality during follow-up period in this study. There is not any risk factor in 23 patients, but in one patient JS occurred following bone marrow transplantation with thalassemia major. There was not any mortality in this study.

Conclusion: Although scleroderma is a rare connective tissue disorder in childhood, it should be considered in children with skin sclerosis especially in patient with other autoimmune disorder. Localized morphea was the most common type of scleroderma in our survey.

PP04. MALIGNANCIES AND DEATHS IN IDIOPATHIC INFLAMMATORY MYOPATHY
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Background: The objective of this study was to assess the incidence and common type of malignancies and outcome in Korean patients with idiopathic inflammatory myopathy (IIM), and to define concomitant malignant disease and the predictive factors of death in patients diagnosed as having IIM.

Methods: From January 1989 to May 2011, 162 patients were diagnosed as polymyositis or dermatomyositis at one university hospital, Seoul, Korea. The medical records of these patients were retrospectively reviewed. We compared the clinical findings of the patients according to existence of malignancy and analyzed the prognostic factors predicting death. Kaplan-Meier curves were used to illustrate the cumulative proportions of survival.

Results: 17 out of 161 patients (10.5%) had malignancies. Of malignancy associated patients, 2 patients were simultaneously diagnosed, and 9 patients were diagnosed malignancy within 2 years of diagnosis of IIM. There was no significant difference in age, sex, the level of muscle enzyme between patients with or without malignancy. But patients with malignancy had significantly lower frequency of interstitial lung disease and older age at onset. The main causes of death were lung complications and malignancy. Older age at diagnosis, existence of malignancy and minimal elevation of CPK were the independent risk factors for death. 1-year survival rate for IIM patients without malignancy was 93% and 5-year survival rate was 89%, but in those with malignancy was 82% at 1-year and 59% at 5-year.

Conclusion: Malignancies were most serious risk factor for death in IIM. The prognosis of malignancy associated IIM was extremely poor. Early discovery of malignancy is important in cases of IIM and extensive investigation for searching malignancy should be done at time of diagnosis and each year for the at least 2 years after diagnosis of IIM.

Keywords: Malignancy, Death, Dermatomyositis, Polymyositis.

PP05. Abstract withdrawn.

PP06. HIGH SERUM PROCALCITONIN ALONE DIFFERENTIATES BACTERIAL INFECTION FROM RHEUMATIC DISEASE FLARES
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Background: Early differentiation between bacterial infection and rheumatic disease flares is critical to decide between the contradicting treatments.

Method: Seventy-nine autoimmune disease patients with symptoms suggestive of either infection or disease flare were enrolled. High sensitivity C-reactive protein (hsCRP) and serum procalctinon (PCT) were measured. This study was performed retrospectively and the patients were later classified into 2 groups; disease flare and infection by chart review.

Result: Both hsCRP and PCT were higher in the infection group than in the disease flare group (CRP in infection vs. disease flare, 11.96 mg/dL ± 9.60 vs 6.42 mg/dL ± 7.01, p = 0.003; PCT in infection vs. disease flare 2.44 mg/mL ± 5.55 vs 0.99 mg/mL ± 0.08, p < 0.001). The area under the ROC curves (AUC) (95% confidence interval) for CRP and PCT were 0.70 (0.58-0.82) and 0.84 (0.75-0.93) which showed significant difference (p < 0.05). Predicted AUC for combined CRP and PCT was 0.83 which is not significantly different from that of PCT alone (p = 0.80). The best cutoff value for hsCRP was 7.18 mg/dL with
the sensitivity 71.9% and specificity 68.1%. The best cutoff value for PCT was 0.09 ng/mL with sensitivity 81.3% and sensitivity 78.7%.

**Conclusion:** PCT have better sensitivity and specificity compared to CRP. CRP has no additive value when combined with PCT when differentiating bacterial infection from disease flare.

'The authors have declared no conflicts of interest.'

**Keywords:** procalcitonin, autoimmune disease, C-reactive protein, bacterial infection.

**PP07. HLA-DRB1 AND SYSTEMIC LUPUS ERYTHEMATOSUS IN KOREAN POPULATION**

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**Background:** Systemic lupus erythematosus (SLE) is associated with complex genetic susceptibility and HLA-DRB1 is a well-accepted susceptibility gene with reports of association with clinical manifestations such as renal involvement. It has shown relatively consistent association across different ethnicities, but the risk alleles were different. We investigated the association between HLA-DRB1 alleles and SLE and its clinical manifestations in a large number of Korean population.

**Methods:** A total of 475 SLE patients and 1,119 healthy controls were genotyped for HLA-DRB1 alleles. All subjects were Korean. Relative Predisplosional Effects (RPEs) analysis and False Discovery Rate (FDR) correction method were used for multiple testing corrections.

**Results:** A total of 34 HLA-DRB1 alleles observed. The allele frequencies of HLA-DRB1*1501, *0803, *1101, *1202, *1302, *0403, *0101, and *0701 were significantly higher in SLE patients than control subjects. After correction for multiple testing, *1501 (p = 4.45 × 10^-10^), odds ratio (OR) = 1.82, 95% confidence interval (CI) = 1.44-2.03, *0803 (p = 4.77 × 10^-08^), OR = 1.81, 95% CI = 1.40-2.34, *1101 (p = 2.05 × 10^-05^), OR = 0.47, 95% CI = 0.28-0.77, and *1202 (p = 5.56 × 10^-06^), OR = 0.64, 95% CI = 0.24-0.88 showed significant association. Neurologic disorder was associated with *0803 (p = 1.03 × 10^-3^, OR = 3.51, 95% CI = 1.58-7.81), malar rash with *0803 and *0701, arthritis with *0803 and *0701, serositis with *0701, hematologic disorder with *0803 and *0701, Negative associations were also found in arthritis with *1101 and *1302, serositis with *1302, Hematologic disorder with *1501, *0101, and *1302, and immunologic disorder with *1101 and *1302.

**Conclusions:** The HLA-DRB1*1501, *0803, *1101, and *1202 alleles are strongly associated with susceptibility to SLE in Korean population and HLA-DRB1*0803 is a susceptibility marker for neuropsychiatric lupus.

**Disclosure statement:** The authors have declared no conflicts of interest.

**PP08. STAINING PATTERNS FOR ANTINUCLEAR ANTIBODY AND EXTRACTABLE NUCLEAR ANTIGEN SUBGROUPS IN PATIENTS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS**

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Tokyo University Medical Faculty EDIRNE/TURKEY

**Objectives:** Antinuclear antibodies (ANA) are considered a hallmark of autoimmune rheumatic diseases and the standard method for ANA detection is the indirect immunofluorescence (IIF) assay on HEp-2 cells. We evaluated staining patterns for ANA on ANA-HEp-2 cells and extractable nuclear antigen (ENA) subgroups in patients with systemic lupus erythematosus (SLE) patients. In addition, we investigated whether there were any relationships between various antibodies and clinical features of SLE.

**Methods:** We retrospectively analyzed SLE patients diagnosed at Tokyo University Medical Faculty Division of Rheumatology within the last 10 years. 216 SLE (208 F, 8 M) patients were included into the study. Clinical and demographic features and disease activity and damage indices according to SLEDAI was assessed. ANA-HEP-2 test was considered positive when a clear ANA pattern was observed at 1/80 dilution in two distinct commercial HEp-2 slides by two blinded independent observers. All ANA-HEP-2 positive sera were screened for antibodies against ENA (Sm, U1-RNP, SS-A/Ro, SS-B/La, histon, nucleosome, centromer) by double immunodiffusion against calf spleen extract as antigen source. All samples were screened for anti-native DNA at 1/10 dilution by IIF on Crithidia luciliae as previously reported.

**Results:** ANA was positive in 207 of 216 SLE patients (96.3%) and anti-DNA was positive in 77 patients (36.7%). Staining patterns for ANA in SLE patients are seen in Table 1.

**Patterns**

<table>
<thead>
<tr>
<th></th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homogeneous</td>
<td>113 (52,4)</td>
</tr>
<tr>
<td>Speckled</td>
<td>83 (39,4)</td>
</tr>
<tr>
<td>Nucleoplastic</td>
<td>35 (16,3)</td>
</tr>
<tr>
<td>Nucleolar</td>
<td>6 (2,4)</td>
</tr>
<tr>
<td>Cytoplasmic</td>
<td>14 (6,3)</td>
</tr>
<tr>
<td>Nucleoli</td>
<td>19 (8,7)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (2,9)</td>
</tr>
</tbody>
</table>

The frequencies of ENA subgroups are seen in Table 2.

**PP09.**

**PP10. LUPUS MYOSITIS WITH NORMAL CREATININE KINASE FOLLOWING ADA LUMUB USE IN RHEUMATOID ARTHRITIS PATIENT**

Hani Almoallim, Ahlam Almasari and Hadeel Khadawadi

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The anti-tumor necrosis factor (TNF) agents are now widely used in the management of rheumatoid arthritis (RA), spondyloarthritis, and other autoimmune diseases. Concerns should be raised regarding the safety profile of these agents especially with the increasing use and longer periods of treatment. One of the side-effect of these anti-TNF agents is the development of autoimmune diseases including lupus like syndrome. Here, we report a rare case of a 32-year old female diagnosed with severe seropositive rheumatoid arthritis. In order to control her severe symptoms,adalimumab was started. She showed significant improvement with complete remission. Shortly, after the adalimumab had been tapered, the patient developed diffuse muscle weakness, mainly proximal rather than distal. In addition, she had conversion of her ANA and anti-ds DNA from negative to strongly positive while her creatinine kinase remained normal. MRI of right arm

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showed mild edema with post contrast enhancement. The right arm biopsy revealed inflammatory myositis histopathologically. Diagnosis of adalimumab induced lupus myositis was considered and high dose steroid therapy was initiated. Given her profound muscle weakness, rituximab was added. The patient responded well with complete restoration of her muscle strength.

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

Acknowledgement: Alzaidi chair of research in rheumatic diseases, Umm Alqura University for supporting this project.

PP11. PREGNANCY IN SYSTEMIC LUPUS ERYTHEMATOSUS: FOLLOW-UP RESULTS

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Background: Systemic Lupus Erythematosus (SLE) is one of the most common autoimmune disorders that affect women during their childbearing years. The study is based on the data obtained to study, the outcomes of pregnancy and their influence on the course of the disease in patients with SLE.

Methods: Retrospective observation of pregnant women with SLE was conducted during 5 years. The outcomes of pregnancy, especially of SLE, presence of lupus nephritis and secondary antiphospholipid syndrome (APS) in 11 patients with significant SLE (ARA, 1982) were assessed. The average age of the patients was 24.82 years, and the average duration of disease was 6.72 years.

Results: 11 patients under study developed 28 pregnancies. In 10 cases (35.7%) fetal loss was observed, 8 of which (7 fetal mortality and 1 spontaneous abortion), happened prior to diagnosis SLE. 2 spontaneous abortions developed in SLE diagnosed patients (7.1%). 18 pregnancies (64.3%) ended successfully, with 11 cases of normal childbirth (39.3%) and 7 cases of caesarean section (25%). 7 of 11 patients had nephritis in history (SLE with nephritic syndrome). In 5 patients, concomitant secondary APS was observed. In 2 cases (11.2%) the pregnancies developed at severe exacerbation of the disease. One patient received 32 mg/day of methyprid and IV immunoglobulin, and the other 24 mg/day of methyprid. Other pregnancies (16, or 88.9%) developed in 9 patients, who before the pregnancy had been in remission at least 1 year. They did not need any immunosuppressive drugs. They received maintenance doses of methyprid (4-12 mg/day), and low-dose aspirin, when necessary.

Conclusion: the follow-up during at least 1 year of persistent remission makes successful outcomes of pregnancies possible in patients with SLE receiving maintenance therapy; even in cases they had such severe manifestations of SLE, as renal involvement or secondary APS in their history.

PP12. THE ANALYSIS OF RISK FACTORS OF OSTEOPOROSIS IN GIRLS AND YOUNG WOMEN IN YAKUTSK CITY

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Background: Examination of the population of the Republic of Sakha (Yakutia) for the purpose of early diagnosis of osteoporosis (OP) was carried out in Yakutsk city for the first time.

Methods: Bone mineral density of (BMD) was evaluated using the Osteometer DTX-200 (USA). A total of 3784 patients were surveyed. Our non-randomly selected sample included 32 girls and young women <30 years of age and 39 women age to 30-39 years.

Results: The minimum Z-scores in these 2 groups were -2.3 and -2.2, respectively (normal BMD is indicated with a Z-score > -1.1, but Z-score < -2.5 is regarded as osteopenia). Among women of 30-39 years Z-criterion: a minimum -2.1; a maximum 3, 4; average value -0.3 ± 0.19. Analysis of questionnaires revealed that girls and young women consume at least 3 servings of dairy products but are fond of unhealthy drinks (coffee, sodas), have chronic diseases which can lead to decrease BMD, and irregularly ingest calcium preparations. Lacerations were seen in 10 girls (most commonly a sports trauma).

Women 30-39 also consume an average of 2 servings of dairy products per day, are fond of coffee, salty and meat food, and have chronic diseases, especially of the thyroid gland, suffer non-inflammatory gynecologic diseases (38.5%).

Conclusions: Health education in the schools and with parents, along with promotion of bone-healthy food appears to be necessary. Also routine testing of BMD and screening for early evidence of diseases of the endocrine and reproductive systems are indicated.

PP13. ROLE OF REACTIVE OXYGEN SPECIES AND CASPASE-3 IN CYTOTOXIC T LYMPHOCYTE MEDIATED CELL DEATH IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Cytotoxic T lymphocyte (CTL)–mediated cell death through granzyme B has recently been proposed to be a preferential and selective source of auto-antigens in systemic lupus erythematosus (SLE). The aim of this study was to study role of ROS and caspase-3 in CTL mediated cell death in 40 SLE patients and controls.

Method: The ROS levels were measured using the dye 2’, 7’- dichlororofluorescein diacetate by flow cytometry. Cytotoxic T lymphocyte activity of CD8+ T cells was detected by measuring the intracellular expression of perforin and granzyme B in CD8+ T cells by three colour flow cytometry. The disease activity was determined by using SLE Disease Activity Index (SLEDAI) score.

Results: The levels of ROS and intracellular expression of caspase-3 were significantly elevated in SLE patients and positive associated with disease activity in SLE patients. The expression of perforin, granzyme B independently and perforin/granzyme B together in CD8+ T cells were significantly increased in SLE patients and correlated with the disease in SLE patients. Furthermore, the levels of granzyme B and perforin/granzyme B on CD8+ T lymphocyte were strongly associated with increased level of caspase-3 and ROS in SLE patients.

Conclusion: The increased levels of caspase-3 and ROS production demonstrate that CTL mediated cell death mediated by caspase-3 dependent pathway and this amplification get enhanced by production of ROS in SLE patients.

Conflict of Interest: The authors declare that they have no conflict of interest.

PP14. CYCLOSPORINE IS EFFECTIVE TREATMENT FOR TNF INHIBITOR INDUCED PALMOPRANTAL PUSTULOSIS

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Background: TNF inhibitors are playing a major role in the management of psoriatic arthritis, however paradoxical development of palmoplantar pustulosis has been well documented. Majority of the palmoplantar pustulosis is mild and subside with or without discontinuation of TNF inhibitors, but there are also occasional refractory lesions. There is no established strategy to treat this problem. To determine an effective therapy of TNF inhibitor induced refractory palmoplantar pustulosis.

Methods: We experienced two patients of psoriatic arthritis who developed palmoplantar pustulosis during remission with treatment of infliximab and methotrexate. Despite intensive local treatment dermatologists, the lesion persisted and finally TNF inhibitor and methotrexate were withdrawn. Even with continuation of the local treatment, there was no apparent improvement noted over months until cyclosporine was finally instituted.

Results: There were dramatic and rapid resolutions of the skin lesions and improvement of relapsed arthritis in two weeks after cyclosporine 5 mg/kg/day were begun. There was no clinically significant adverse reaction during the short follow-up period.

Conclusions: Cyclosporine is very effective in the treatment of TNF inhibitor induced refractory palmoplantar pustulosis even with patients who have failed with cyclosporine before institution of TNF inhibitors. It is necessary to perform a larger study to confirm the effect.

Disclosure statement: none.

PP15. DIGITAL PANORAMIC RADIOGRAPHY AS A USEFULL TOOL FOR DETECTION OF BONE LOSS: A COMPARATIVE STUDY

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1Faculty of dentistry Shahid Sadoughi University of Medical Sciences, Yazd Iran, 2Faculty of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd Iran.
PP1. ABSTRACT WITHDRAWN

PP1. INTRAMUSCULAR BENZATHINE PENICILLIN PENICILLIN IN SYSTEMIC SCLEROSIS, TWO SUCCESSFUL EXPERIENCES

Mohammad Bagher Owlia and Hossein Soleimani
Shahid Sadoughi University of medical sciences, Yazd, Iran

Systemic sclerosis (SSc) is a connective tissue disease characterized by overproduction of collagen fibers by abnormal fibroblasts and microvascular and endothelial abnormalities. Several therapeutic modalities are proposed. Anti-inflammatory penicillin derivatives (Sulfoxide and sulfones) are discovered in 1986 by Thompson, Kevan. Penicillamine is a metabolite of penicillin which was used routinely in SSc. It works by reducing numbers of T-lymphocytes and preventing collagen from collagen cross-linking. After accidental successful experience with intramuscular penicillin and after getting recent consents from the patient our cases received monthly intramuscular injection of benzathine penicillin for six months.

Case 1: A 22 year old Zoroastrian girl was first referred five years ago, where the diagnosis of SSc was made on the basis of typical clinic-serological manifestations. Since early disease she had suffered from Raynaud’s phenomenon, polyarthralgias, skin sclerosis of the hands, fingertips, were managed with calcium channel blockers, D-penicillamine and pentoxyfylline orally and illoprost intravenously with fair response.

Case 2: A 42 years old man with history of SSc for more than 12 years with progressive skin stiffness, polyarthralgias, skin sclerosis of the hands, fingertips, were managed with calcium channel blockers, D-penicillamine and pentoxyfylline orally and illoprost intravenously with fair response.

Conclusion: Parenteral penicillin could be more effective than oral penicillin in control of SSc.

The authors have declared no conflicts of interest.

Keywords: Penicillin, sclerosis, treatment, penicillin.

PP17. THE STUDY OF 12 MONTHS FOLLOW UP OF ARTHROSCOPIC SYNOVECTOMY OF KNEE IN RHEUMATOID ARTHRITIS PATIENTS WITH REFRACTORY KNEE ARTHRITIS

Hossein Soleimani Saleh-Abadi, Majid Lofti, Mohammad Bagher Owlia, Ali Dehghan and Babak Saberir
Rheumatology Department, Yazd University of Medical sciences, Yazd, Iran

Background: Rheumatoid Arthritis (RA) is a chronic multisystem disease of unknown cause that the characteristic feature is persistent inflammatory synovitis. Until now in some case, chronic synovitis of knee refractory to systemic therapy and steroid injection is a therapeutic problem. This study was conducted to evaluate Arthroscopic Synovectomy(AS) of knee in RA patients with chronic refractory knee arthritis and results of 12 months follow up.

Methods: since August 2008 to August 2010 Arthroscopic Synovectomy were done in 20 knees from twenty patients with RA who had chronic refractory knee arthritis and other causes of chronic synovitis was ruled out. Modified health assessment questionnaire (MHAQ), visual analogue scale (VAS), duration of morning stiffness and acute phase reactants (CRP and ESR) were evaluated before and 3, 6, 9, 12 months after Arthroscopic Synovectomy.

Results: MHAQ Score, pain (based on VAS) and morning stiffness had significant decrease (P < 0.05). Acute phase reactants had no significant difference. Globally 65% patients were satisfied and had not need to analgesic after Arthroscopic Synovectomy.

Conclusion: Arthroscopic Synovectomy in RA patients with refractory synovitis of knee has significant improvement in function and decrease pain in one year follow up.

PP18. LUPUS HEADACHES IN THE CHILDHOOD-ONSET OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Although headache is a common complaint among patients with lupus, no universally headache as a nomenclature in its classification recently. Few studies indicate that lupus patients with positive anti-nuclear antibody (ANA) and positive antiphospholipid antibodies (aPL) experience more frequent headaches. The aim of this study was to determine the correlation between headache frequencies and ANA, anti-double strand DNA (anti-ds-DNA) and aPL positivity.

Methods: By using the prospective multicenter study design, 55 children were enrolled with neuropsychiatric lupus complaining of headache, that where followed-up for 5 years. Whether lupus headache is a sign of progressive nature of the disease and how it should be treated is not clear yet. Those with active disease, hypertension, or tension headache were not included in this study.

Results: The sample was consisted of 55 children (45 girls and 10 boys) with definite lupus. The mean of sample age was 11.5 years old (age range 3-16 years old). Twenty three of our patients developed new or significantly worse, persistent headaches that sometimes were similar to migraine in the early course of their disease. However their headaches were not accompanied with disease flare up and the headaches were not found to be related to hypertension or use of other medications either. Accordingly, we came to a diagnosis of lupus headache for these clients. Among them 19 cases (35%) had a positive aPL and 53 cases (96%) had a positive ANA.

Conclusion: Lupus headaches are most likely multi factorial, and probably only a small proportion of them truly represent active lupus. The above data highlights probable correlation between aPL, ANA, an anti-ds-DNA and lupus headache. However, more research is required to find better treatments and to establish a definitive correlation among them.

PP20. EVALUATION OF REGULATORY T-CELLS AND AUTOIMMUNITY IN IGA DEFICIENCY

Asghar Aghamohammadi1, Habib Soheili2, Sheviri shahinpour2, Hassain Abolhassann, Amim Hirbod, Narges Arand2, Mahomud Tavassoli2, Nima Parvaneh3 and Nima Rezae2
1Research Center for Immunodeficiencies, Tehran University of Medical Sciences, Tehran, Iran; 2Pediatrics Center of Excellence, Children’s Medical Center, Tehran University of Medical Sciences, Tehran, Iran

Background: Selective IgA deficiency (SiGAD) is the most common primary antibody deficiency, characterized by significant decreased in serum levels of IgA in the presence of normal IgG and IgM.We hypothesized that IgA deficiency with autoimmunity might be associated by T-reg abnormalities.

Methods: In order to evaluate relation between autoimmunity and regulatory T-cells in IgA deficiency, we study 26 IgA deficient patients (aged 4–17 years) with serum IgA levels less than 7 mg/dL. Also in this
study 26 controls (aged 4–17 years) were included. Regulatory T cells were measured by flowcytometry using T-reg markers including CD4 + CD25 + FoxP3 +.

Results: The mean percent of CD4 + CD25 + FoxP3 + regulatory T cell from all CD4 + cells was 4.08 ± 0.68 in healthy controls which was higher than SIGAD patient significantly (2.93 ± 1.3; p-value = 0.003). We set a cut of point (2.36%) for regulatory T cell level which was two standard deviations lower than the mean of normal controls. According to T-reg factors and in order to verify the effects of regulatory T cell in clinical manifestation of SIGAD patients, we classified patients into two groups; group1 (G1) with T-reg < 2.36% and group 2 (G2) with T-reg > 2.36%. Sixteen patients (9 males and 7 females) were included in G1 and remaining 10 patients (7 males and 3 females) were classified in G2. The mean age of G1 was significantly higher rather than G2 (11.90 ± 3.9 vs. 8.05 ± 3.35; p-value = 0.018). Autoimmunity were recorded in 9 patients (53.3% vs. 100% in G1) in contrast only 1 patient in G2 presented autoimmunity (10%; p-value = 0.034). Class switching defect was recorded in 40% of patients in G1 which meaningfully different from G2 in which had no any report of such defect (p-value = 0.029).

Conclusion: We have demonstrated that proportions of Treg are suggested to be important in autoimmunity, and our results suggest that Treg may have a similar role in IgA deficiency.

PP21.
Abstract withdrawn.

PP22. HYPERTENSION AS AN IMPORTANT RISK FACTOR OF Atherosclerosis in relation to inflammatory and endothelial dysfunction biomarkers in lupus patients
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Background: Systemic lupus erythematosus (SLE) is an autoimmune disease characterized by breakdown of self-tolerance resulting in autoantibody productions that affect many organs in the human body. Accelerated atherosclerosis is an important cause of morbidity and mortality among SLE patients. In this study, we evaluate the conventional risk factors such as hypertension and novel risk factors of atherosclerosis in lupus patients. Intima-media thickness (IMT) of carotid arteries was determined to verify possible association between risk factors and subclinical atherosclerosis.

Methods: Sixty SLE patients and thirty healthy matched controls were selected. SLEDAI sheet was filled for all patients by one rheumatologist for evaluate the lupus disease activity. Hypertension was considered if blood pressure was >140/90 or patients use any antihypertensive drugs. For all participants 10 cc of fasting venous blood sample was obtained for examining hs-CRP, VCAM1, homocystein, cholesterol, LCL-C, HDL-C, triglyceride, FBS, Anti-DNA, C3, C4. Right and left carotid intima-media thickness was determined by Doppler ultrasonography for all participants.

Results: The mean age of SLE patients and controls was 28.8 ± 10.3 (range 14-52) and 33.8 ± 9.1 (range 18-48) years respectively (P = 0.781). Female/male ratio was 12/1 in patient and 7.5/1 in controls (P = 0.474). P value for BMI between patients and controls was 0.679. The mean score of SLEDAI was 15.37. Hypertension was detected in 21.7% of lupus patients and in 6.7% of control group (P = 0.072).

There was significant difference between serum level of VCA1, homocystein, total cholesterol, LDL-cholesterol, triglyceride, right and left carotid IMT between SLE patients and control group (P < 0.05). The relation between blood pressure and hs-CRP, VCA1, homocystein levels and carotid IMT in lupus patients with diagnosed and treated arterial hypertension was assessed. We showed a significant correlation between high blood pressure and homocystein levels, duration of SLE and SLEDAI score (P < 0.05). There was a significant difference between carotids IMT and hypertension in lupus patients (P < 0.001).

Conclusions: Lupus patients have higher prevalence of subclinical atherosclerosis. Assessment of traditional and novel cardiovascular risk factors may play an important role in prevention of late stage cardiovascular morbidity in these patients. In patients with lupus assessment the associations of inflammatory biomarkers and blood pressure values may improve understanding of mechanisms involving inflammation and endothelial dysfunction that may cause intractable hypertension.

PP23. THE PREVALENCE AND RISK FACTORS OF LOW BACK PAIN AMONG COMMUNITY RESIDENTS IN KOREA
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Objectives: To determine the prevalence of low back pain (LBP) among middle-aged and elderly community residents in Korea and to examine the relevant risk factors, including activities reflecting the Asian lifestyle, and the relationship between radiographic features of degenerative changes in the lumbar spine and LBP.

Summary of background data: The prevalence and implication of LBP among the elderly, particularly Asians, are underrepresented in previous reports.

Methods: Data for LBP were collected for 4181 subjects from a rural farming community. The point and cumulative lifetime prevalences of LBP were obtained in addition to measurement of the severity of LBP. Lateral lumbar spine radiographs were taken according to a standard protocol.

Results: The mean age of the study subjects was 56 years and 55% were females. The lifetime prevalence of LBP was 53.8%, with women having a higher prevalence. The point and 6-month prevalences were also higher among women. The lifetime, point, and 6-month prevalences increased with age in both genders, except for lifetime prevalence in men. The prevalence of LBP > 3 years was significantly higher in women and increased significantly with age, particularly in women. Both lifetime and point prevalence of LBP were significantly associated with age, female gender, the presence of osteoporosis, and time spent squatting and sitting without back support. After adjusting for age and gender, the presence of disc space narrowing, osteophytes and advanced Kellgren-Lawrence grade in lumbar radiographs was associated with LBP.

Conclusions. The prevalence of LBP is comparable between these Korean community residents and other population groups. Because the prevalence and severity of LBP increase with aging, LBP may pose another major health threat to the aging population.

Keywords: back pain, lumbar spine, prevalence, quality of life, risk factors.

PP24. TYPE OF PRESENTATION AND INITIAL TREATMENT IN A SERIE OF 23 CASES OF GRANULOMATOSIS WITH POLIANGEITIS
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Introduction: Granulomatosis with poliangeitis, is a necrotizing granulomatous vasculitis characterized by damage in the respiratory tract, kidney, skin… The onset of the disease is usually indolent, with nonspecific symptoms. The most frequent initial clinical presentation is a purpura and/or upper respiratory tract in the majority (90%).

Materials And Methods: A retrospective study in a cohort of 23 patients diagnosed with Granulomatosis with poliangeitis. We analyzed clinical variables that led to the admission and diagnosis of disease.

Results: In our series the average age was 48.4 ± 20.3 years, comprising 15 men and 8 women. The average age at diagnosis was 43.4 ± 18.6 years. All patients were positive c-ANCA and PR3 specific, and required hospitalization at the onset, presenting as reason for admission the following symptoms. See Table 1

<table>
<thead>
<tr>
<th>Fever</th>
<th>Arthritis</th>
<th>Oral</th>
<th>Cutaneous Pulmonary Renal Neurological</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients (%)</td>
<td>62.6%/19</td>
<td>47.8%/11</td>
<td>65.2%/15</td>
</tr>
</tbody>
</table>

| absolute Number | |

Eight patients debuted with early renal impairment in urinary sediment (hematuria and proteinuria in nephrotic range) without impact on renal function, which resolved after administration of intravenous steroids. In 34.8% (8 patients) was observed pulmonary involvement by the presence of multiple cavitary pulmonary nodules and bilateral. Initial treatment was in 21.7% only prednisone, prednisone in 65.2% with cyclophosphamide, in 4.3% was added azathioprine and in 8.7% required Rituximab. The overall trend was positive in 100% of cases required high-dose glucocorticoid therapy, except in the case of a patient who presented with intestinal vasculitis with diffuse enteritis, requiring emergency surgery.

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Conclusions: With this study, we show that the clinic that motivates the initial admission and diagnosis of these patients is acute, nonspecific, with a spectrum of varying severity, with the most frequent involvement of cutaneous-articular and upper respiratory tract, such as recorded in the scientific literature. Sometimes the clinical presentation may evolve fastly into forms of serious illness, which requires early diagnosis.

PP25. COGNITIVE BEHAVIORAL THERAPY (CBT) IN GREEK PATIENTS WITH INFLAMMATORY ARTHRITIS: PRELIMINARY RESULTS

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Background: CBT is a type of psychotherapy that is based on the following premise - your unhealthy moods and behaviors are derived from your negative thoughts and beliefs. Cognitive behavioral therapy puts the responsibility on you, not on other people or outside situations. Recent developments in autoimmune diseases and chronic pain research suggest that CBT may be helpful when being applied to patients at risk.

Aim: To examine the effect of CBT in Greek patients with inflammatory rheumatic diseases the first three months of therapy over a period of six months.

Patients-Method: Patients with inflammatory arthritis, members of the Hellenic League Against Rheumatism. Prior to the treatment all of them were assessed using the Health Assessment Questionnaire (HAQ-Gv), the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI). The program of the group therapy consists of 26 sessions, and involves psycho-education about rheumatic diseases, chronic pain and chronic stress; relaxation methods for pain management, stress management training, and alteration of maladaptive thought patterns; self-monitoring and problem solving techniques.

Results: Eleven patients (two men and nine women), with a mean age of 35yrs and disease duration 7 years. Five patients suffer from RA, two from SLE, two from PsA and two from AS. Differences were documented between participants after three months of therapy by the two from SLE, two from PsA and two from AS: 0,5), BDI (pre-therapy: mean score 150.493). Biological therapy was prescribed to 7 (21%) ACPA-positive and 1 (3%) ACPA-negative patients (p = 0.054).

Conclusions: CBT was determined in over two thirds of the patients with arthritis. While CBT isn’t discussed by rheumatologists the patients may wish to ask their doctor about that.

PP26. B CELLS DEPLETION AS A VALUE ALTERNATIVE THERAPEUTIC IN PEDIATRIC AUTOIMMUNE DISORDERS: 3 CASE REPORTS

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Background: Approach to autoimmune diseases remains a challenge, not only by their clinical complexity but also because of frequent refractoriness to conventional treatment. We report 3 cases in which B cells depletion, with monoclonal antibody anti-CD20, appears as a therapeutic option to consider.

Case 1: 17-year-old boy referred to the Autoimmune Diseases Centre with symmetrical proximal muscle weakness, weight loss, dysphagia, perungual lesions and erythema of hands and eyelids with a year of evolution. Laboratory tests showed elevated lactate dehydrogenase, creatine kinase, transaminases and aldolase. Immunological/serological tests were negative. Capillaroscopy was compatible with Juvenile Dermatomyositis. Electromyography and muscle biopsy revealed specific inflammatory myopathy. Cortico-swoeds were used but there was progression of disease. Rituximab was introduced with significant clinical improvement.

Case 2: 11-year-old girl diagnosed with Mixed Connective Tissue Disease for 1 year, with adverse reactions to corticosteroids. Completed 4 cycles of Rituximab with total regression of skin lesions and CD19 depletion. Eight months after, there was laboratory and clinical recurrence, with arthritis, vasculitis, weight loss, and elevation of CD19. The second cycle of Rituximab was performed uneventfully with clinical improvement and some respiratory CD19 depletion.

Case 3: 13-year-old girl diagnosed with Systemic Sclerosis with blood vessel, gastrointestinal and muscle/joint involvement. Despite the improvement of Raynaud’s phenomenon with bosentan, she progressed to hip arthritis with gait impairment and severe pain. Refactory to conventional treatment, completed 4 cycles of Rituximab with clinical improvement, hip arthritis complete recovery and CD19 depletion. Conclusion: Rituximab seems to be an effective alternative for severe and refractory autoimmune diseases.

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

PP27. DO ANTIBODIES TO CITRULLINATED PEPTIDE/PROTEIN LEVELS LEAD TO CHANGES IN TREATMENT OF PATIENTS WITH RHEUMATOID ARTHRITIS?

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Background: Plasma antibodies against citrullinated peptides/proteins (ACPA) are an important biomarker in rheumatoid arthritis (RA). The value of ACPA for early diagnosis of RA and its utility as predictive marker have been clearly demonstrated, as reflected by the inclusion of ACPA in the recent ACR/EULAR diagnostic criteria. ACPA are also an important tool for clinical decision making, as starting therapy or scaling drugs.

Objective: To analyze the use of ACPA in clinical practice in a Unit of Rheumatology.

Patients And Methods: This was a retrospective cross-sectional study that included all patients consecutively seen as outpatients in a Unit of Rheumatology in Southern Spain from May through June 2011. Clinical records were reviewed and data on ACPA, whether it was determined and its levels. ACPA were considered positive if levels were > 7 IU/mL. If a positive ACPA then lead to a change in therapy was recorded.

Results: 97 patients were included, 77 (79%) women, with a median (IQR) age of 53 (40-61) years. Three physicians managed these patients. ACPA was determined in 68 (70%) of them. ACPA was tested in 22 (63%) of 35 patients by physician A, in 27 (73%) of 37 patients by physician B, and 19 (76%) of 25 patients by physician C (p = 0.047). ACPA were positive in 34 (50%). Methotrexate dose was increased in 1 (12%) ACPA-positive patients compared with 9 (27%) of 34 ACPA-negative patients (p = 0.595). Other DMARD were introduced in 6 (18%) ACPA-positive and in 4 (12%) ACPA-negative patients (p = 0.493). Biological therapy was prescribed to 7 (21%) ACPA-positive and 1 (3%) ACPA-negative patients (p = 0.054).

Conclusions: ACPA was determined in over two thirds of the patients with AR in our Unit. However, a positive ACPA does not induce a change in therapy with methotrexate or other DMARD. A trend to start biological therapy among ACPA-positive individuals with AR was observed.
lesions localized within the metaphysis of bilateral tibia, shoulder and bones of forearm, and third proximal phalanx of the left hand.

Conclusions: The diagnosis of multiple enchondromatosis is based on clinical and conventional radiological evaluations. Histological analysis is used if malignancy is suspected. Additional investigations are indicated for the evaluation and surveillance of lesions that become symptomatic such as pain, increase in size. The medical treatment aims to obtain palliative relief. Total cure is usually impossible because of the multiple nature of the tumors. The only effective treatment is surgery that allows to resect the tumors and to their complications such as pathological fractures, growth defect, and neurological symptoms. Skeletal lesions that enlarge or become painful without trauma are suspected for malign degeneration.

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

PP29. THE EFFECTS OF EDUCATION ON ILLNESS PERCEPTION IN PATIENTS WITH PSORIASIS

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Background: The objective of this study was to measure the knowledge of patients with psoriasis about psoriatic arthritis (PsA) and to investigate the change of their illness perceptions about the disease after a seminar about psoriasis and PsA.

Methods: A 1-hour seminar on psoriasis and PsA was introduced to patients with psoriasis. The knowledge of patients with psoriasis about PsA was evaluated with five questions before the seminar (n = 38), and 1 week after the seminar (n = 13).

Results: Mean age was 47.83 ± 12.50 and mean disease duration was 16.55 ± 9.52 years. Of 38 patients, 47.4 % (18) answered as “yes” for Question 1, 52.6% (20) for Question 2, 65.8% (25) for Question 3, 63.2% (24) Question 4 and 34.2% (13) for Question 5 before the seminar. The score of B-IPQ was 40.41 ± 15.32 before the seminar and 32.92 ± 16.63 after the seminar. The scores of all items of B-IPQ decreased after the seminar except timeline item. However, this wasn’t at the level of significance. There was a positive correlation between B-IPQ total score and IPQ total score and HAD-Anxiety and HAD-Depression scales after the seminar (respectively p:0.041, r: 0.622 and p: 0.035, r: 0.638).

Conclusions: Depression or anxiety levels in patients with RA are associated with higher disease activity, greater pain severity, higher functional disability, increased fatigue and negative illness perceptions in Turkish patients with RA.

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

PP30. THE FACTORS ASSOCIATED WITH DEPRESSION, ANXIETY AND ILLNESS PERCEPTIONS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a chronic autoimmune disorder causing inflammation of the joints and surrounding tissues. In addition to producing a chronic inflammatory state, the disease generally causes continuous pain, functional disability, tiredness, psychological problems such as depression and anxiety. The onset of illness gives rise to a range of problems, which can vary greatly from patient to patient. It was reported that emotional responses are processed in parallel to illness representations. The aim of this study was to assess the factors associated with depression, anxiety and illness perception in Turkish patients with RA.

Methods: RA disease activity was assessed with the Disease Activity Score (DAS28) and the patient’s global assessment of pain on a visual analogue scale. Psychiatric evaluation was assessed with the self-rated 14-item Hospital Anxiety and Depression Scale (HAD-A, HAD-D). Upper extremity specific disability was measured with Quick Disabilities of the Arm, Shoulder and Hand (dQDASH) questionnaire. Functional disability was measured with Health Assessment Questionnaire (HAQ). Illness perception was evaluated with brief illness perception questionnaire (B-IPQ).

Results: The study included 50 RA patients (45 female, 5 male) with mean age of 50.6 years. Mean DAS28 score was 3.69 ± 1.29. Mean HAD-A score was 8.97 ± 4.96, mean HAD depression score was 8.95 ± 4.96. Mean B-IPQ score was 37.61 ± 15.03. HAD-A was correlated with HAD-D (r: <0.001, r:0.609). HAD-A and HAD-D scores were significantly correlated with dQDASH, pain, qDASH, HAQ, qDASH and fatigue (respectively r:0.377, r:0.372, r:0.429, r:0.512, r:0.628, r:0.571 for HAD-A and r:0.465, r:0.463, r:0.338, r:0.452, r:0.470, r:0.514 for HAD-D). B-IPQ was correlated with DAS28, pain, fatigue, qDASH and qDASH (respectively r: 0.406, r:0.578, r:0.323, r:0.533, r:0.538).

Conclusions: Depression or anxiety levels in patients with RA are associated with higher disease activity, greater pain severity, higher functional disability, increased fatigue and negative illness perceptions in Turkish patients with RA.

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

PP31. ANKYLOSING SPONDYLITIS IN A CASE WITH MULTIPLE SCLEROSIS

Sailha Erogul Demir, Hatice Kübra Asik Celik, Aylin Rezvani, Nihal Ozaras and Emin Poyraz
Bezmialem Vakif University Physical Medicine and Rehabilitation Department, Istanbul, Turkey

Background: Coexistence of multiple sclerosis (MS) and ankylosing spondylitis (AS) has been reported in isolated cases. It was reported that coexistence of these two conditions could be higher than might be expected. We reviewed the case of a patient, who was diagnosed as having AS during the follow-up was presented.

Case Report: A patient with MS applied to outpatient clinic with the complaints of low back pain, numbness of lower extremities. Her MS diagnosis was made 8 years ago with Magnetic Resonans Imaging study (MRI) of the brain and a lumbar puncture showing oligoclonal bands. Her history was notable for mild low back pain for 10 years. She described her low back pain as mechanical at the beginning and inflammatory back pain with morning stiffness lasting four hours for four years. Her laboratory investigations showed positive HLA-B27. MRI of the sacroiliac joints showed bilateral sacroiliitis. Our patient fulfilled the diagnostic criteria for AS as well as possessing the gene for HLA-B27.

Conclusions: MS and AS are two autoimmune diseases. Genetic and environmental factors play an important role in the pathogenesis of these diseases. In previous reports, diagnosis of AS preceded initial symptoms of MS. Although the present case had low back pain for 10 years, she was previously diagnosed as having MS. It is questionable whether the present case had AS at the time of the diagnosis of MS. In most of the previous cases reporting coexistence of AS and MS, patients were male. It was well known that women with AS has more asymptomatic sacroiliitis than men. Because our patient was female and AS progressed slowly, she was firstly diagnosed as having MS. New epidemiological studies need to explain the coexistence of these two conditions.

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

PP32. HLA-DRB1 EXPRESSION IN THE RHEUMATOID ARTHRITIS PATIENTS AMONG THE POPULATION IN THE SOUTHEAST ANATOLIAN REGION OF TURKEY

Ibrahim Batma2, 1 MehmetAfik Saryildiz2, 1 Banu Dilek1, Ismail Yildiz2, Orhan Ayvazid2, Kemal Naci3 and Remzi Cevik1
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Background: The HLADR1 gene plays an important role in the genetic predisposition to rheumatoid arthritis (RA). The relationship between HLADR1 and rheumatoid arthritis show differences according to various ethnic groups and geographical distributions. The aim of this study is to determine the distribution of HLADR1 among the Turkish RA patient population in the Southeast Anatolian Region.

Methods: 96 patients diagnosed with rheumatoid arthritis and a control group consisting of 84 healthy individuals have been enrolled in the study. The HLADR1 type and subtypes have been specified using the polymerase chain reaction with sequence specific primers (PCR-SSP) method. The between-group HLADR1 type and certain subtype frequencies have been compared.

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

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Results: The DRB1*10 allele has been found statistically significantly higher in patients with RA in comparison to the control group (p = 0.001). However, the DRB1*04 and DRB1*11 alleles were statistically significantly lower in patients with RA (p = 0.001 and p = 0.02, respectively). In the RA patient group, the DRB1*0401, DRB1*0408 and DRB1*1001 sub-types have been found statistically significantly higher (p = 0.04, p = 0.01, p = 0.005, respectively), while the DRB1*0402, DRB1*0403 and DRB1*0701 sub-types were statistically significantly lower (p = 0.01, p = 0.02, p < 0.001, respectively).

Conclusion: This study has revealed the HLADRB1 distribution in the Southeast Anatolian Region of Turkey. DRB1*10 type and DRB1*0401, DRB1*0408, DRB1*1001 sub-types have been observed to be related with RA. DRB1*07, DRB1*11 types and DRB1 *0402, DRB1*0403, DRB1*0701 sub-types have been accepted as protective alleles and sub-types.

Disclosure of interests: All other authors declared no conflicts of interest.

PP33. METHOTREXATE-INDUCED OSTEOARTHRITIS IN A PATIENT WITH RHEUMATOID ARTHRITIS
Tuba Gunay, Yesim Garip and Hattice Bodur
Numune Training and Research Hospital, Ankara, Turkey

Background: Methotrexate (MTX) is an anti-metabolite frequently used in the treatment of autoimmune conditions such as rheumatoid arthritis and psoriatic arthritis. Long-term use of MTX is associated with various potential side-effects. In rare circumstances, it may lead to osteopathy. We report a patient who was receiving MTX for rheumatoid arthritis presenting with metatarsal stress fractures.

Methods: Case report

Results: A 69-year-old woman with rheumatoid arthritis on long-term MTX therapy was admitted to hospital with swelling of the right leg and ankle and metatarsalgia aggravated with weight-bearing. She had no history of trauma. She was receiving MTX 20 mg weekly. In physical examination, her right leg and ankle were swollen. Right ankle and fifth metatarsal were tender to palpation. The range of motion of her ankle was normal. Laboratory parameters including complete blood count, erythrocyte sedimentation rate, C-reactive protein, serum total calcium, phosphorus, 25-hydroxy vitamin D3, parathyroid hormone, alkaline phosphatase were in normal ranges. Radiographic examination showed fifth metatarsal fracture. This was confirmed with computerized tomography. The bone mineral density results, measured by dual energy X-ray absorptionometry, were as follows: lumbar spine BMD T-score: -2.2, femoral neck BMD T-score: -2.2. She was diagnosed with MTX osteopathy due to long-term MTX therapy. Symptoms were resolved when MTX was discontinued.

Conclusions: Long-term therapy with MTX may lead to osteopathy which is characterized with a triad of bone pain, osteoporosis and fractures. Disclosure statement: The authors have declared no conflicts of interest.

PP34. METHOTREXATE-INDUCED VASCULITIS
Tuba Baykal1, Buminan Seferoglu2 and Kazim Senel2
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Background: Many farmalogical drugs can induce a variety of vasculitic manifestations ranging from small vessel hypersensitivity vasculitis and leukocytoclastic vasculitis. The most frequently vasculitis causes are propylthiouracil, hydralazine, phenytoin and methotrexate (MTX). However, low dose MTX-induced vasculitis is a rare clinical presentation. We report a case of hypersensitivity vasculitis following treatment with low dose oral MTX (10mg/week) for rheumatoid arthritis.

Case: A 42 year-old woman developed palpable purpura on lower limbs after a few days of MTX administration. The histological findings of cutaneous lesions were consistent with small vessel hypersensitivity vasculitis. Other known causes of vasculitis were excluded by clinically and laboratory tests. The patient was diagnosed drug-induced vasculitis due to MTX therapy. MTX was stopped and skin manifestations significantly after withdrawal of the MTX therapy. Glucocorticoid treatment was started and cutaneous manifestations improved completely within two weeks.

Conclusion: In conclusion, we conclude that low dose MTX can induce skin lesions and should be considered a potential cause of drug induced vasculitis in patients treated with MTX.

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

PP35. PSEUDOTUMOR CEREBRI DUE TO BECHÇET DISEASE
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Background: Behçet Disease (BD) is a multisystemic, recurrent inflammatory disorder affecting the eyes, skin and mucosa, locomotor, respiratory, gastrointestinal, nervous and vascular systems. Pseudotumor cerebri (PC), also known as idiopathic intracranial hypertension is a disorder of unknown etiology. PC is a rare condition of BD. Herein, we present a patient who developed PC in patient with BD.

Case: A 30-year-old woman was admitted to our department with a ten days history of severe headache, nausea and transient visual obscurations. She gave a four years history of BD presenting oral and genital ulcers and arthralgia. On admission, she was awake and alert. Magnetic resonance imaging (MRI) showed normal findings. Lumbar puncture was performed and the cerebrospinal fluid (CSF) was analysed. The CSF was examined for abnormal cells, infections, antibody levels, the glucose and protein levels. All of these are within normal limits. However the pressure measurement of CSF was 27 cm/H2O. The fundoscopy examination determined bilateral papilloldea. PC due to BD diagnosis was considered according to the “Modified Dandy Criteria”. In the initial treatment was drained of CSF by lumbar puncture for the reduct of CSF pressure. Patient was treated with immunosuppressive (azathioprine) and acetazolamide. The weight loss was proposed. After discharge and on follow-up examination, all findings of PC improved.

Conclusion: In conclusion, PC can be associated in the course of BD. Disclosure statement: All authors declared no conflicts of interest.

PP36. ULTRASONOGRAPHIC EVALUATION OF THE MUSCLE ARCHITECTURE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS
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Background: Systemic lupus erythematosus (SLE) is a multi-system chronic inflammatory disease with a broad spectrum of clinical and pathological manifestations. Although clinical evidence (i.e., weakness, myalgia/myositis and abnormal muscle biopsies) of proximal skeletal muscle involvement is not rare in patients with SLE, there is no knowledge about the effects of SLE on macroscopic structural parameters of the muscles. Therefore, in this study, we aimed to explore the muscle structure of SLE patients using ultrasonographic imaging.

Methods: Thirty one SLE patients (5 M, 26 F) with a mean age of 39.61 ± 10.86 years and a mean disease duration of 3.71 ± 3.23 years (range, 1-13 years) without any previous history of myositis and 31 age-, sex- and BMI-matched healthy subjects were enrolled. Demographic and clinical characteristics of the patients were recorded. Ultrasonographic evaluations were performed with a linear probe (7-12 MHZ Logiq P5, GE Medical Systems) on vastus lateralis and gastrocnemius muscles of the nondominant extremity. Measurements included muscle thickness (MT), fascicule length (FL) and pennate angle (FA).

Results: We found that MT, FA and FL of vastus lateralis muscles were increased in patients with SLE in comparison to control subjects (p < 0.001, p = 0.007 and p = 0.217, respectively). On the other hand, the measurements pertaining to the gastrocnemius muscles were found to be similar between the two groups.

Conclusions: We found that structural changes might be seen in proximal muscles of SLE patients. Pathophysiology and clinical relevance of these changes (especially concerning strength) need to be further investigated.

Keywords: muscle structure, ultrasound, systemic lupus erythematosus, myopathy.

Disclosure statement: The authors have declared no conflicts of interest.
PP37. THE PREVALENCE OF FIBROMYALGIA AMONG PATIENTS WITH CERVICAL DISC HERNIATION: A PILOT STUDY
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Background: Fibromyalgia (FM) is a form of non-articular rheumatism, characterized by widespread musculoskeletal pain. In population studies the prevalence of FM varies from 0.95% to 6.6%. Increased rates of FM following cervical spine injury were reported. The aim of the present study was to investigate the prevalence of FM in patients diagnosed as cervical disc herniation (CDH).

Methods: This study was a cross-sectional analysis of patients diagnosed as having CDH. The diagnosis of CDH has been made with patients’ clinical evaluation and radiological findings with Magnetic Resonans Imaging Study. The count of 18 tender points (TPs) was conducted by thumb palpation. All patients were interviewed about the presence of neck and radicular arm pain. Detailed neurological examination was made. FM was diagnosed using the American College of Rheumatology (ACR) 1990 criteria.

Results: Fiftytwo patients with CDH included to the study. Their mean age was 41.5 ± 9.2 years and the duration of neck pain was 3.4 ± 4.3 years. Abnormal neurological findings were detected in 63.5% of patients. Fortyone patients reported widespread pain. Six patients (11.5%) fulfilled the ACR criteria for FMS. All of the FMS patients were female. Their mean age was 46.0 ± 5.7 years and the duration of symptoms was 10.5 ± 6.2 months. All the patients diagnosed as having FM had radicular arm pain and 5 of them had abnormal neurological findings. Of these patients, 74.3% of TPs were located around the neck region.

Conclusions: The prevalence of FMS in patients with CDH seems to be higher than population studies. The evaluation of widespread pain and TPs is necessary to diagnose FM according to ACR 1990 criteria. However, it is important to keep in mind that the TPs are located primarily in the neck/shoulder girdle region and this may bias the diagnosis of FM in patients with CDH.

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

PP38. ANTI-TUMOR NECROSIS FACTOR-À THERAPY AND ‘PARADOXICAL’ ADVERSE EFFECTS IN RHEUMATIC PATIENTS
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Background: Treatment with anti-TNFÀ agents in various rheumatic diseases (rheumatoid arthritis - RA, anklyosing spondylitis - AS and psoriatic arthritis - PASA) increased patients’ quality of life. In parallel with their use has also increased the number of side effects, some described as paradoxical adverse events-PAEs (new onset or aggravation of psoriasis lesions, inflammatory bowel disease - IBD and uveitis).

Objectives: This retrospective study aimed to describe the different PAEs that occurred in patients with rheumatic diseases treated with at least one anti-TNFÀ drug (infliximab, etanercept, adalimumab).

Methods: This single-center retrospective observational study included 241 patients with rheumatic diseases who were treated in our department with infliximab (n = 135), etanercept (n = 71) and adalimumab (n = 35). We assessed the frequency and type of paradoxical reactions in these patients.

Results: We observed six cases of psoriasisiform lesions. "Paradoxical" new-onset psoriasis appeared under etanercept (n = 2), infliximab (n = 2) and aggravation of psoriasis was observed in two other cases (one treated with infliximab and the other with adalimumab). Skin lesions occurred on average after 25 months from the initiation of anti-TNFÀ treatment. In two cases a switch between biological agents was necessary. In our cohort, three cases of uveitis occurred (two under etanercept and one during infliximab). These ocular side effects occurred in AS patients on average 4 months after the initiation of biological therapy. None of our patients developed IBD. There was no significant association among any of these PAEs and a specific anti-TNFÀ agent (p = 0.342 for uveitis and p = 0.956 for psoriasis).

Conclusion: After the introduction of anti-TNFÀ drugs, PAEs do occur, but rarely. Infliximab treatment was associated with skin reactions and uveitis with ocular side effects. We didn’t find any digestive side effect.

"Paradoxical" adverse events, unexpected and antagonistic reactions, need more investigations. Still, there is no evidence to support that these reactions are specific to anti-TNFÀ drugs.


PP40. Abstract withdrawn.

PP41. Abstract withdrawn.

PP42. ULTRASONOGRAPHIC EVALUATION OF THE FEMORAL CARTILAGE THICKNESS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS
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Background: Systemic lupus erythematosus (SLE) is a multi-system chronic inflammatory disease with a broad spectrum of clinical and serological manifestations. Although articular involvement is known in SLE, articular cartilage has not been studied before. Therefore, in this study, we have evaluated the femoral cartilage by using ultrasonography.

Methods: Twenty-nine SLE patients (5 M, 24 F) with a mean age of 38.81 ± 10.68 years and a mean disease duration of 3.71 ± 3.23 years without any previous history of arthritis and 29 age- and gender- and body mass index-matched healthy subjects were enrolled. Demographic and clinical characteristics of the patients were recorded. The thickness of the femoral articular cartilage was measured by using a 7-12 MHz linear probe. Three mid-point measurements were taken from each knee; from right lateral condyle (RLC), right intercondylar area (RIA), right medial condyle (LMC), left lateral condyle (LIA), left medial condyle (LMC).

Results: Although SLE patients had thicker femoral cartilage values than those of the control group at all measurement sites, the difference was not statistically significant (all p > 0.05). Twenty-two patients (75.9%) were using corticosteroids and, when those patients were compared with the control group, the difference reached statistical significance at RIA (p = 0.022), LIA (p = 0.059) and LMC (p = 0.023).

Conclusions: We found that SLE patients seem to have thicker femoral cartilage values and that this increase could be related with corticosteroid treatment. In addition to studies that have shown the favorable effects of corticosteroids on chondrogenesis, further studies are needed to clarify the scenario in SLE patients.

Keywords: Systemic lupus erythematosus, femoral cartilage, ultrasound, thickness.

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

PP43. CLINICAL PHENOTYPE OF NEONATAL LUPUS ERYTHEMATOSUS RELATES TO AUTOANTIBODY LEVEL AND GENDER
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Conclusion: Levels of anti-Ro antibodies. Macrocephaly was only seen in infants females (74%), but macrocephaly was seen more in males (62%) versus 41% males). A larger majority of patients with CHB were Where the cohort of NLE patients had slightly more females (59%), other NLE manifestations most often presented in combination. more than half of the cases (26/42), as was neutropenia (23/41); the other NLE manifestations often presented in combination. Where the cohort of NLE patients had slightly more females (59% versus 41% males), a larger majority of patients with CHB were females (74%), but macrocephaly was seen more in males (62%). The chance of developing NLE was associated with increasing levels of anti-Ro antibodies. Macrocephaly was only seen in infants that still had a positive anti-Ro titer when sampled after birth. Increased levels of anti-LA antibodies were associated primarily with cutaneous rash. Anti-dsDNA, anti-RNP and anti-Sm antibodies were present in less than 5% of infants and could not be related to clinical phenotype.

Conclusion: In this large cohort of prospectively followed infants from mothers with anti-Ro antibodies, a majority developed NLE. The clinical phenotype of NLE appeared to be related to gender and to the quantity of anti-Ro and -La antibodies.

PP44a. ANALYSIS OF GROWTH IN FEMALE PATIENTS WITH PEDIATRIC-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS

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2The Hospital for Sick Children, Toronto, Canada.

Background: Systemic Lupus Erythematosus (SLE) is a lifelong disease characterised by multi-organ involvement and autoantibodies. It is assumed that growth impairment is common in pediatric-onset SLE (pSLE), but studies reporting on the frequency and characteristics of these abnormalities in pSLE are lacking.

Aim: To analyse growth in female patients with pSLE and examine its relationship to disease characteristics and treatment.

Methods: Prospectively collected digital growth curves and menarche data of 167 female patients with pSLE diagnosed <16 years and a minimal disease duration of 3 years were analysed. Abnormal growth was defined as i) one or more periods of growth arrest (<2 cm) lasting minimal 6 months, ii) more than one growth curve percentile difference between height at diagnosis and at any follow up visit, or iii) -2.0 cm growth after menarche. 67 patients were not further analysed as they had reached final height prior to diagnosis or menarche.

Results: 58/129 (45%) pSLE patients with growth potential had abnormal growth. The median growth curve percentile at diagnosis (50th) was significantly different from the percentile at last follow up (10th) in these patients with abnormal growth (p < 0.001). Patients with abnormal growth were diagnosed significantly younger than patients with normal growth (9.4 ± 2.8 versus 11.6 ± 2.6 years, p < 0.001). 90% of these patients showed periods of growth arrest, whereas 10% showed a gradual decline in growth only. The median height of the 36 patients with abnormal growth having reached age 16 years (presumed final height) was significantly lower compared to the height of patients diagnosed after 16 years (154.8 ± 8.6 versus 161 ± 6.1 cm, p < 0.001). Ethnicity, disease activity over time and cumulative medication use are currently being tested for their potential relation to growth impairment.

Conclusion: Growth was impaired in approximately half of female pSLE patients and may lead to abnormally low final height. Abnormal growth was characterized by periods of normal growth and growth arrest rather than gradual decline in growth, likely related to disease flares and/or treatment.

PP44b. EVALUATION FACTOR IN RELATION TO FIRE HYDRANT INSTALLATION OSTEOARTHRITIS

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Background: Osteoarthritis is known as a degenerative disease. In recent years these views have been revised based on the assumption that the development of osteoarthritis is complex interaction mechanisms partially caused by changes of joint components, genetic and environmental factors, these being considered the result of the interaction between active degenerative processes and environment.

Methods: The study was focused on the evaluation of the hydric factor and its action in rural population of the Republic of Moldova. The study included 1574 persons who were divided into two groups. After this division in the first group 1340 persons, were included, in the 2nd (second) – 234 persons. The first group used water with a high degree of mineralization, the second group - mineralization indices did not exceed normal limits.

Results: The results of prolonged consumption of drinking water deficiency or excess of macro and micronutrients, may affect human health taking into account their involvement in many diseases of modern civilization, and osteoarthritis pathology. Our study was focused on the category of persons over 40 years, whose average age is 56.92 ± 0.23. From the total number of people - 56% were diagnosed with osteoarthritis. In group I, in which people use in food over 10 mmol/dm³ hard water, long time, the rate is 57.14% of patients compared to the group II, where drinking water has a hardness level in the normal range, and index percentage is 48.11%. Gender criterion, contingency men / women is 554 (35.2%) bărbați/1020 (64.8%) women. Thus, drinking water in group I, after the composition of macroelements is preponderant - sulfate-chloro-sodium carbonate, and the mineralization of 1.9 ± 0.02 g/dm³. While in group II pre-dominates in the macroelements - sodium carbonate and mineralization - 1.3 ± 0.03 g/dm³ (p < 0.001).

Conclusions: The synthesis of the material allows to highlight that the process affected by osteoarthritis, use highly mineralized water, rich in sulfates, chlorides, carbohydrate, calcium and sodium, in comparison with those who did not develop the disease.

PP45. FIBRONECTIN FRAGMENT INDUCES PROCOLLABOLIC EFFECTS IN CHONDROCYTES THROUGH TLR-2 SIGNALING PATHWAY

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Background: Fibronectin fragments (FN-fs) are increased in the cartilage of arthritis patients and have a potent chondrolytic effect. However, little is known about the cellular receptors and signaling mechanisms that are mediated by FN-fs. Here we investigated whether the 29-kDa amino-terminal fibronectin fragment (FN-f 29) regulate cartilage metabolism through Toll-like receptor (TLR-2) signaling pathway in human articular chondrocytes.

Methods: Human articular chondrocytes were enzymatically isolated from knee cartilage from osteoarthritis(OA) patients undergoing total knee replacement surgery, and cultured in monolayer. Small interfering RNAs (siRNAs) targeting TLR-2 and Myeloid differentiation factor 88 (MyD88) were used to block TLR-2 signaling. Control scrambled siRNA was used as a negative control. Following stimulation of chondrocytes by FN-f 29, the relative levels of mRNA for matrix metalloproteinase 1 (MMP-1), MMP-13, cyclooxygenase-2 (COX-2), and inducible nitric oxide synthase (iNOS) were analyzed by real-time quantitative reverse transcription-polymerase chain reaction. Generation of nitric oxide (NO) and protein expression of matrix metalloproteinase 1 (MMP-1), COX-2 and iNOS was assessed by Griess reaction and Western blotting analyses. MMP-13 production was measured by ELISA assay.

Results: FN-f 29 stimulated the expression of MMP-1, MMP-13, COX-2 in a dose-dependent manner. A significant reduction of the expression level of TLR-2 by TLR2 siRNA was verified. Knocking down of TLR-2 remarkably suppressed the expression of MMP-1, MMP-13, and COX-2 induced by FN-f 29. FN-f 29 induction of NO production and iNOS expression were also significantly reduced in TLR-2 siRNA transfected chondrocytes. Knocking down of MyD88 led to inhibition of procolabolic responses induced with FN-f 29 in chondrocytes.

Conclusions: MyD88-dependent TLR-2 signaling is important for procolabolic responses to FN-f 29. Modulation of TLR-2-mediated...
signaling may be as a potential therapeutic strategy for the prevention of cartilage degradation in arthritis.

**PP46. INEXPICLIBLE IMMUNOLOGY? NEW-ONSET RHEUMATOID ARTHRITIS (RA) IN A RENAL TRANSPLANT PATIENT ON TRIPLE IMMUNOSUPPRESSIVE THERAPY**

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**Background:** Development of RA after renal transplant is a rare phenomenon, with only one report internationally. [1] Patients in receipt of specific agents require lifetime immunosuppression. Most centres utilise triple therapy with cyclosporin (Cyc), mycophenolate mofetil (MMF) and prednisolone. [2]

**Methods:** A 48 year old Caucasian woman presented with a 6 month history of inflammatory polyarthritis. She had been taking prednisolone 5 mg daily, MMF 750 mg twice daily and Cyc 100 mg/75mg twice daily for 4 years following a cadaveric renal transplant for ischaemic nephropathy. There were features of chronic infection, latent malignancy or connective tissue disease. There was no significant family history and alcohol consumption was minimal. Examination revealed symmetrical synovitis of the MCPJ andPIPJ of the hands and wrists. Laboratory investigations were consistent with a diagnosis of RA (see Table).

**Results:** Low-dose methotrexate (MTX) was added to her treatment. Major concerns were MTX toxicity and the increased risk of malignancy especially since RA, immunosuppressive agents and renal transplant all increase the risk. [3-5] Biochemical indices, including Cys levels, were monitored fortnightly and short-term results of MTX therapy have been favourable.

**Conclusions:** Both the patient and donor are HLA-DR4 positive. Furthermore, the patient is shared-epitope (SE) positive (HLA-DRB*01:01, DRB*04:01). HLA antigens from the donor may have induced RA via matching of HLA DR alleles, similar to the case of transmission of psoriatic arthritis to a patient via bone marrow transplant from an affected donor. [6] Alternatively, the patient may have had RA for several years but symptoms were initially masked by pre-transplant uremia, and later by high dose immunosuppressives.

We encourage clinicians to report similar experiences, as a case series may delineate the immunological mechanisms of RA pathogenesis in such patients.

<table>
<thead>
<tr>
<th>Investigation</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb (Haemoglobin) 11.5-16.0 g/dL</td>
<td>14</td>
</tr>
<tr>
<td>ESR (Erythrocyte sedimentation rate 1-12 mm/hr)</td>
<td>38</td>
</tr>
<tr>
<td>Creatinine (60-120 umol/l)</td>
<td>92</td>
</tr>
<tr>
<td>CRP (C-reactive protein 1-6 mg/l)</td>
<td>17</td>
</tr>
<tr>
<td>Urate (100 - 430 umol/l)</td>
<td>246</td>
</tr>
<tr>
<td>RF (Rheumatoid factor 0-20 U/L/mL)</td>
<td>85</td>
</tr>
<tr>
<td>Anti-CCP (anti-cyclic citrullinated protein antibody 0-7 U/mL)</td>
<td>314</td>
</tr>
</tbody>
</table>

**Disclosure statement:** The authors have declared no conflicts of interest.

**PP47. THREE COMPONENT TREATMENT OF OSTEOARTHRITIS**

Asker Seisenbayev and Galym Togzbaev
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**Background:** Osteoarthritis (OA) is the most widespread joint disease affecting the population of the world in the last years. Current pharmacological intervention is the current standard treatment of osteoarthritis. Although osteoarthritis medications are generally effective in eliminating or alleviating pain and symptoms among patients, this treatment is also susceptible to undesirable outcomes such as side effects and drug interactions. We propose the adoption of a psychological intervention program in which osteoarthritis patients acquire cognitive skills for managing osteoarthritis pain. This study tested the efficacy of this psychological program in comparison to the current pharmacological intervention. The design of this therapy is based on previous findings on perceptual style and cue attention.

**Methods:** We adopted a randomized controlled design to compare differences in both physical and psychological outcomes between two cohorts of patients: patients treated in randomized controlled trials.

**Results:** Patients treated in randomized controlled trials.

**Conclusion:** Medically supervised fastening therapy can ameliorate symptoms of patients with moderate OA, especially at early stage. Therefore preliminary data should be consolidated in larger cohorts of patients treated in randomized controlled trials.
of efficacy of therapy: 1) Functional index WOMAC; 2) The Pain at walking on YOURS; the Estimation of efficiency the researcher; 3) the Pain at standing on YOURS; the Estimation of efficiency the researcher; 4) the Pain at sitting on YOURS; the Estimation of efficiency the researcher; 5) the Pain at walking in bed; the Estimation of efficiency the researcher. All these estimations were performed by patients, their relatives and the medical personnel of the department of rheumatology.

Results: In all groups in a month from the therapy beginning there was a significant reduction of expressiveness of a painful syndrome in patients with RA, who were treated mainly with standard monotherapy or combination of inflammatory preparations more authentically decreased. In all groups in a month from the therapy beginning there was a significant reduction of expressiveness of a painful syndrome (is better, worse, without changes); 4) the Estimation of efficiency the researcher; 5) Daily requirement in accepted NSAID and analgetics.

Conclusion: The results of our randomized research testify to efficacy of three-component treatment OA and allow to recommend it for standardization of schemes of therapy of this disease.

PPS5. TREATING RHEUMATOID ARTHRITIS TO TARGET: RESULTS OF APPLICATION OF T2T INITIATIVE IN A COHORT OF COLOMBIAN PATIENTS

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Background: The knowledge about effectiveness of early therapy, implications of disease activity and use of composite disease activity measures in rheumatoid arthritis (RA) and also the efficacy of tight-control strategies have conducted to elaborate defined therapeutic targets in RA. As a result, the Treat to Target (T2T) initiative was developed. Objectives of this study was to analyze the results of applying T2T in a cohort of patients with RA in Colombia.

Methods: Cross-sectional study. 234 patients from two rheumatologic centers with diagnosis of RA (ACR 1987 criteria) were evaluated with T2T strategy. A standardized follow-up was designed using DAS28: every 3-4 weeks (DAS28 > 3.2), every 7-8 weeks (DAS28 = 3.2 and < 5.1), and every 11-12 weeks (DAS28 > 3.2). It was recorded tender joint counts (TJC), swollen joint counts (SJC), DAS28 and HAQ. In case of DAS28 > 3.2 it was mandatory to introduce adjustments in treatment based on a predefined clinical guideline.

Primary outcome: disease activity (joint counts and DAS28) at baseline and six months later. Secondary outcome: difference in functionality (HAQ). Statistical analysis: STATA10 (Shapiro-Wilk’s test, Wilcoxon’s test).

Results: 234 patients, 71% women and 29% men; median age 58 y/o (24-84). The median of the variables at baseline and 24 weeks later were: DAS28: 3.5 and 2.4 (p < 0.000), TJC: 2.0 and 1.0, SJC: 0.5 and 0.0, HAQ: 0.75 and 0.12. The difference of medians for each variable showed statistical significance (p < 0.05). 81% of patients were using conventional DMARDs and 19% biologic agents.

Conclusions: Application of T2T was accurate to perform tight and control strategies have conducted to elaborate defined therapeutic targets in RA. As a result, the Treat to Target (T2T) initiative was developed. Objectives of this study was to analyze the results of applying T2T in a cohort of patients with RA in Colombia.

PPS6. ORTHOPAEDIC INTERVENTION IS AN IMPORTANT AND COMMON OUTCOME IN RA. RESULTS FROM AN INCEPTION COHORT WITH 25 YEARS FOLLOW UP, CROSS-VALIDATED WITH NATIONAL DATA.

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Background: This study examines structural damage in RA over 25yrs as reflected by the need for orthopaedic intervention. RA is a chronic, disabling disease with variable outcome. Large joint surgery is considered a surrogate marker for end-stage joint disease.

Methods: The Early Rheumatoid Arthritis (ERA) is a well-described inception cohort in 9 UK regions started in 1986 (n = 1460). Patients were treated mainly with standard monotherapy or combination DMARD therapy (pre-biologic era). Information on clinical, laboratory and functional features, including inpatient admissions and surgical interventions, was recorded on standardized forms at regular time intervals. National Health Service (NHS) databases (Hospital Episode Statistics 1997-2010, National Joint Registry 2003-2010 & NHS Death Registry 1986-2010) supplemented the ERA database, using NHS Numbers to match patients.

Results: A total of 1251 orthopaedic procedures were recorded in 544 patients (37%). The majority of these procedures were for knees (n = 259, 21%), then hips (n = 246, 20%). Of these, 66% were THR, 81% TKR, 21% accounted for wrist/hand procedures, 16% ankle/foot surgery. Median times from baseline to the first orthopaedic intervention were 9.8 years for major, 10.6 years for intermediate and 7.9 years for minor-type intervention. Haemoglobin, ESR, DAS and HAQ in first year were related to major surgery: OR2.1 (95% CI 1.6-2.7); OR1.5 (1.1-1.9); OR1.8 (1.1-2.8); OR1.4 (1.1-1.8) respectively. Mean duration for inpatient stay was 11, 5 and 3 days respectively. Orthopaedic surgical rates at each follow-up year from diagnosis were fairly constant (this will be graphically displayed). Supplemeting the clinical database with national databases strengthened the analysis of this cohort.

Conclusions: Orthopaedic surgery is common in the pre-biologic era, with knee and hip interventions accounting for the majority of procedures undertaken in this RA cohort. Early, intensive treatment to control for active disease is important in reducing the risk for structural damage and subsequent joint surgery.

PPS7. EFFECT OF HOMOCYSTEINE ON VASCULAR FUNCTION IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is associated with many functional and structural complications in the vasculature. Compelling evidences suggest the involvement of homocysteine (Hcy) in vascular dysfunction in a variety of diseases. However, the relationship of Hcy to vascular changes in RA patients has not been examined yet. Thus, the present study examined the relationship of Hcy with measures of blood flow (BF) and vascular resistance (VR) in 31 RA patients and 19 healthy controls.

Methods: Forearm BF at rest (RBF) and after occlusion (IBF) as well as VR at rest (RVR) and after occlusion (IVR) were obtained and plasma Hcy were determined after 12-14hours fasting blood sampling.

Results: No differences (p > 0.05) were found between RA patients and controls in RBF and RVR. However IBF was lower (p = 0.05) in the patients (24.4 ± 6.55 ml/100 ml/min) than in the controls (29.4 ± 10.5 ml/100 ml/min). Plasma Hcy levels were similar (p = 0.8) in the patients and control. Plasma Hcy levels correlated with RBF (r = -0.4; p = 0.02), and with RVR (r = 0.3, p = 0.03). However, no correlations were found between Hcy levels with IBF (r = 0.1p = 0.5) and IVR (r = 0.1p = 0.4). Additionally, no correlations were found between Hcy levels and any of the vascular function indices in the healthy control.

Conclusions: The results confirm diminished vascular function in RA patients. The relationships between Hcy and vascular function are unique indicating that Hcy might affect the vasculature in RA. The absent relationships of Hcy with vascular indices after occlusion suggest that vasodilators released after ischemia might have overcome the negative effect of Hcy. Additionally, the absent of relationship of Hcy with vascular function indices in the healthy individuals might suggest hyperinflammatory status among the patients might have augmented the effect of Hcy on vascular function. However future studies should further examine the involvement of Hcy in vascular dysfunction in RA.

PPS8. KERATOSIS PILARIS IS STRONGLY ASSOCIATED WITH JUVENILE IDIOPATHIC ARTHRITIS AND INFECTIOUS SINUSITIS

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Background: Juvenile Idiopathic Arthritis (JIA) has had onset related to precedent Sino- pulmonary infection. We looked at the past 38 years of hospital admissions in 20,000 patients and found a significant increase of JIA in patients with previous respiratory infections.

Results: A total of 1251 orthopaedic procedures were recorded in 544 patients (37%). The majority of these procedures were for knees (n = 259, 21%), then hips (n = 246, 20%). Of these, 66% were THR, 81% TKR, 21% accounted for wrist/hand procedures, 16% ankle/foot surgery. Median times from baseline to the first orthopaedic intervention were 9.8 years for major, 10.6 years for intermediate and 7.9 years for minor-type intervention. Haemoglobin, ESR, DAS and HAQ in first year were related to major surgery: OR2.1 (95% CI 1.6-2.7); OR1.5 (1.1-1.9); OR1.8 (1.1-2.8); OR1.4 (1.1-1.8) respectively. Mean duration for inpatient stay was 11, 5 and 3 days respectively. Orthopaedic surgical rates at each follow-up year from diagnosis were fairly constant (this will be graphically displayed). Supplemeting the clinical database with national databases strengthened the analysis of this cohort.

Conclusions: Orthopaedic surgery is common in the pre-biologic era, with knee and hip interventions accounting for the majority of procedures undertaken in this RA cohort. Early, intensive treatment to control for active disease is important in reducing the risk for structural damage and subsequent joint surgery.
consecutive JIC patients and the presence of keratosis rubris pilaris (KP), a hyperkeratotic follicular dermatitis found primarily on the extensor surface of the upper arms, but which may extend to the trapezius and the extensor surface of the forearm. 

Methods: Eighteen of the 58 (48%) JIA had KP, which is thought to be related to allergy. Only 4 of 40 children seen for overuse sports injuries had KP. p < 0.003. Of the 18 JIC patients with KP, 8 had no atopy, with negative RAST profile and low serum IgE. Fourteen of the eighteen patients had sinuses seen on conventional radiographic studies. Twelve of the eighteen patients over the age of 9 were treated with doxycycline 50-100 mg bid. Those under 9 were given clarithromycin 250 mg bid.

Results: Twelve of 18 patients had major regression of their KP within 3 weeks. Six patients did not and were followed up with CT-imaging of their sinuses, which revealed chronic sinusitis. Five had obstructive sinusitis, radiographically, and subsequent surgery. All were cleared of KP. The one without obstruction was treated with irrigation and repeat antimicrobial therapy more appropriate for fungal culture results. This patient also cleared their KP. Of the eighteen patients with KP and JIA, 16 had a reduction in their CRP and immunoglobulin levels, with concomitant improvement in arthritis symptoms and/or fever. The 18 KPV-JIA patients had HLA-A,B,C loci studied. 16 of 18 had HLA-B and C loci antigens associated with seronegative spondyloarthritis, particularly psoriatic arthritis. Eczema and/or psoriasis was found in 14 of 18 KP patients.

Conclusions: These findings suggest KP is associated with sinusitis, not allergy per se, and seen in a large percentage of patients with JIA, suggesting a sinopulmonary infection reactive trigger. Since atopic sinusitis predisposes to infection, it is understandable this has been named a contributing factor. The association between major histo-compatibility antigens, particularly with psoriasis and psoriatic arthritis would explain the observed familial autosomal dominant link with this condition.

The presenting author has declared no conflicts of interest.

PP55. EFFECT OF FISH OIL SUPPLEMENTS ON SERUM PARAoxONASE ACTIVITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: This study was designed to determine the effect of Fish Oil (FO) supplements on High density lipoprotein cholesterol (HDL-C), Apolipoprotein-AI (Apo-AI), Arylesterase (Aryl) and Paraoxonase (PON1) activity in female rheumatoid arthritis patients (RA).

Methods: Eighty three RA patients were divided randomly to 40 and 43 patients treated with one pearl (1 gr) /daily or without FO for 3 months accompanied with conventional drug, respectively. HDL-C, Apo-AI, Concentrations and PON1 and Aryl activity were measured before and after treatment.

Results: Serum levels of HDL-C (p = 0.01), Apo-Al (p = 0.02) Aryl (p = 0.009) and PON1 (p = 0.03) activity significantly increased, with FO. A significant correlation between increased PON1 activity and both HDL-C (p = 0.007, r = 0.419) and Apo-Al (p = 0.007, r = 0.742) concentrations and also between HDL-C and Apo Al (p = 0.01, r = 0.403) were found. There was no significant change in serum levels of HDL-C, Apo-Al, Aryl and PON1 activity in the control group.

Conclusion: FO Could increases serum level of HDL-C and PON1 activity which is suggesting one of the mechanisms of anti arteriosclerosis effects of FO supplements in RA patients. It is possible that FO increases PON1 activity mostly by increasing both HDL-C and Apo-Al.

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

PP56. CHILDBEARING DECISIONS AND FAMILY SIZE AMONG WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objective: To determine factors affecting childbearing decisions and family size among women with systemic lupus erythematosus (SLE).

Methods: Information about childbearing history and decisions were obtained through a survey with an existing cohort of women with SLE between ages of 18-45, who are/were married or living with a partner (n= 61).

Results: Almost all women (98.4%) reported at least 1 pregnancy, and majority (85.4%) reported at least 1 live birth. Women diagnosed with SLE before the first child was born had fewer pregnancies and children than women diagnosed with SLE between period after the first child born and before the last child is born, and after the last child is born. Twenty six (42.6%) had made decisions not to have children. Among women who had decided not to have children, 50% of the cause was related to the SLE. Small family size of both women’s and husbands’ sides and impaired sexual interest influenced the childbearing decisions to not to have children. Decision on childbearing was often influenced by other person’s opinion, especially the husband.

Conclusions: Child bearing decisions and family size among women with SLE was often affected by the disease, and familial background and interactions.

PP57. COMBINED EFFECT OF THE PP TPN22 AND CTLA-4 GENETIC POLYMORPHISMS ON THE DEVELOPMENT OF ANKYLOSING SPONDYLITIS

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Background: Imbalance of peripheral tolerance has been associated with autoimmune diseases. Protein tyrosine phosphatase nonreceptor 22 (PTPN22) encodes lymphoid tyrosine phosphatase (LTP) which interacts with cytotoxic T lymphocyte antigen-4 (CTLA-4) by growth factor receptor-bound protein 2 (Grip2) to inhibit T-cell proliferation through a negative signal. Therefore, we evaluated the effects of PTPN22 and CTLA-4 genotypes on the occurrence of ankylosing spondylitis (AS) and its clinical features.

Methods: Genetic polymorphisms of PTPN22 -1123G/C and CTLA-4 4+49A/G were identified by polymerase chain reaction for 391 AS patients and 391 healthy controls matched by age and gender.

Results: Subjects with PTPN22 CC and GC genotypes had a greater risk for AS occurrence than those with PTPN22 GG genotype (matched relative risk = 1.39, 95% confidence interval [CI]: 1.03-1.88). Further, subjects with both of PTPN22 CC/CTLA-4 AA or PTPN22 GC/CTLA-4 AA genotypes had a 2.10 fold (95% CI: 1.07-4.13) risk for AS development than those with other combinations of PTPN22 and CTLA-4 genotypes. In addition, AS patients with both of PTPN22 CC/CTLA-4 AA or PTPN22 GC/CTLA-4 AA genotypes had a 3.30 fold (95% CI: 1.01-10.80) increased risk for the development of inflammatory bowel disease, compared to those with other combinations of PTPN22 and CTLA-4 genotypes.

Conclusions: PTPN22 -1123G/C and CTLA-4 4+49A/G genetic polymorphisms have a combined effect on the development and clinical complications of AS.

PP58. ASSESSMENT OF SEXUAL FUNCTIONS IN FEMALE PATIENTS WITH ANKYLOSING SPONDYLITIS COMPARED TO HEALTHY CONTROLS

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Background: Because sexual difficulties are common along the female lifespan, new studies to determine the effect of the disease on sexual health and associated risk factors in female patients with Ankylosing Spondylitis (AS) are necessary. The aims of the study were to evaluate sexual functions with The Female Sexual Function Index (FSFI), to determine the influence of the disease on sexual functions among female patients with AS and to compare sexual functions of female patients with AS to the sexual functions of healthy female controls.

Methods: Twenty-three female patients with AS and 27 healthy female controls were applied FSFI. AS patients were evaluated according to pain, disease activity, functional status, spinal mobility, depression and quality of life indexes.

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Results: The rate of low sexual function was 60.9% in female patients with AS and 66.7% in healthy controls (p < 0.05). Ten patients were depressed in our study group according to the Beck Depression Inventory, while 15 healthy controls were depressed (p < 0.05). No statistically significant differences were found between female patients and controls in FSFI and BDI scores (p > 0.05). There was a significant correlation between BDI and total FSFI, desire and orgasm subscales of Short Form-36 were correlated with total FSFI scores. We didn’t find any relationship between AS quality of life scale and sexual functions.

Conclusions: Sexual function are common, but not different in female AS patients when compared with healthy controls. Sexual problems in female patients with AS seem to be associated with higher depression level, increased disease activity, decreased functionality, higher pain scores and decreased quality of life.

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

PP59. Abstract withdrawn.

PP60. THE RELATIONSHIP BETWEEN PERIPHERAL ARTHRITIS AND ANTI-CYCLIC CITRULLINATED PEPTIDE ANTIBODIES IN ANKYLOSING SPONDYLITIS

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Objectives: Although ankylosing spondylitis (AS) primarily affects the axial skeleton, peripheral arthritis occurs in up to 35% of cases. Anti-cyclic citrullinated peptide (anti-CCP) antibodies are highly specific for rheumatoid arthritis, whereas their role in AS remains unclear. In this study we aimed to assess the prevalence of anti-CCP antibodies in AS patients with peripheral arthritis and their clinical association with peripheral arthritis.

Methods: We retrospectively selected for this study 626 AS patients who fulfilled the modified New York criteria. The patients were divided into those with and those without peripheral arthritis on the basis of symptoms, physical examination and medical records. The presence of anti-CCP antibodies was investigated in all the patients.

Results: Anti-CCP antibodies were found in 4% (25/626) of the patients, and peripheral arthritis was diagnosed in 37.5% (235/626) of the patients. In multiple logistic regression, peripheral arthritis was significantly (p < 0.01), while associated with female gender (p-value = 0.001) and the presence of anti-CCP antibodies (p-value = 0.001), especially with the presence of titers of anti-CCP antibodies over 3 times the normal upper limit of the laboratory and assay.

Conclusions: Anti-CCP antibodies are occasionally present in AS, and their presence may be helpful as a serum marker for predicting peripheral arthritis.

PP61. ANTI-TNF AGENTS MAY ACCELERATE THE REMODELING OF HIP CARTILAGE IN ANKYLOSING SPONDYLITIS

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Background: Anti-TNF agents have been used for patients with ankylosing spondylitis (AS) that don’t respond to anti-inflammatory drugs and DMARDs. Recently, it has been known that anti-TNF agents can prevent bone erosion but also delay the cartilage loss in rheumatoid arthritis patients. Therefore, we reviewed the effect of anti-TNF agents on hip joint cartilage, which is frequently involved in ankylosing spondylitis.

Method: Through retrospective chart review, we investigated AS patients who were diagnosed according to the modified New York criteria and treated with anti-TNF agents.

Patients were included who treated with TNF-alpha blockers during the follow-up period. We divided the patients into those with and those without peripheral arthritis on the basis of symptoms, physical examination and medical records. The presence of anti-CCP antibodies was investigated in all the patients.

Results: A total of 100 patients were enrolled, 86 out of 100 patients had no interval changes in hip joint space. The hip joint space of 4 patients decreased and 10 patients’ hip joint space increased before and after anti-TNF agents. We analyze that the factors may influence changes of hip joint space such as the changes of BASDAI, ASDAS, CRP, ESR, IgA, anti-TNF agents with age, sex, and disease duration.

Factors that influence hip joint’s Interval narrowing were not statistically significant because the number of patients was too small. 3 out of 4 patients were intermittently treated with anti-TNF agents though they were not in remission, and the hip joint space decreased. 1 patient used all three kinds of anti-TNF agents, but the effect was not enough. ESR, CRP, and BASDAI of the patient were consistently high and his symptoms were continued.

6 out of 10 patients have received the ongoing treatment regardless of their symptoms, and the hip joint space has significantly increased. 1 patient treated only with medication such as NSAIDs and DMARDs reached remission after anti-TNF treatment of a year.

Conclusion: There have been no reports of anti-TNF agent that inhibits cartilage loss in hip joint until now. This study suggests that anti-TNF agents have the protective effect of cartilage in AS. Although it is known that cartilage is not regenerated, some cases show actually the increase of hip joint space in this study. We suggest an additional large prospective case-control study to need anti-TNF agent’s hip joint protective effect.

PP62. THE PREVALENCE OF ENTHESOPATHY IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE AND ANKYLOSING SPONDYLITIS BY ULTRASONOGRAPHY

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Background: Musculoskeletal symptoms are commonly accompanied by extraintestinal manifestations of inflammatory bowel disease (IBD). Enthesopathy is recognized as a pathognomonic finding of spondyloarthritides including ankylosing spondylitis (AS). This study aims to compare the prevalence and characteristics of enthesisopathy between IBD and AS using musculoskeletal ultrasound.

Methods: 47 patients with IBD (Crohn’s disease or ulcerative colitis) and 50 AS patients were examined by bilateral ultrasonography at 5 enthesial sites (patella at insertions of the rectus femoris and patellar tendons, tibial tuberosity at insertions of patellar tendon, calcaneus at insertion of Achilles tendon and plantar aponeurosis). Each tendon thickness, bursitis, bony erosions, enthesophytes, and the increase of vascualization were observed. The patient was diagnosed as having enthesisopathy when at least one or more abnormal findings were seen.

Results: 670 enthesal sites in 67 patients were examined. 43 among 47 patients in IBD group and 48 among 50 AS group showed the findings of enthesisopathy. There was no significant difference in prevalence between the two groups (IBD 93.6% vs. AS 90.4%, p = 0.627). The mean tendon thickness of the Achilles tendon and plantar aponeurosis was significantly thicker in AS than IBD group (for Achilles tendon: 4.85 ± 1.28 mm vs. 4.47 ± 0.94 mm, p = 0.048; for plantar aponeurosis: 3.47 ± 0.63 mm vs. 3.06 ± 0.59 mm, p = 0.000). AS group tended to have a thicker rectus tendon than IBD group, but the result was not statistically significant. Other findings did not show any significant difference between the two groups. The most common ultrasonographic finding of enthesopathy was the increased thickness of rectus and patellar tendons at the knee (90.3% in IBD and 84.1% in AS). Enthesophytes were the most common abnormal finding at the foot (47.2% in IBD and 32.8% in AS).

Conclusions: Our study suggests that the prevalence of subclinical enthesisopathy in IBD is much higher than expected.

PP63. DELAY IN REFERRAL AND DIAGNOSIS OF RHEUMATOID ARTHRITIS AND SPONDYLOARTHITIS IN A COMMUNITY MEDICAL CENTER IN JAPAN

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Background: Much emphasis has been placed on early diagnosis and treatment of rheumatoid arthritis (RA) and spondyloarthritis (SpA).

We confirmed hip joint space changes before and after drug treatment by comparing the changes in simple X-ray, pelvis AP or CT scans.

Result: A total of 100 patients were enrolled, 86 out of 100 patients had no interval changes in hip joint space. The hip joint space of 4 patients decreased and 10 patients’ hip joint space increased before and after anti-TNF agents. We analyze that the factors may influence changes of hip joint space such as the changes of BASDAI, ASDAS, CRP, ESR, IgA, anti-TNF agents with age, sex, and disease duration.

Factors that influence hip joint’s Interval narrowing were not statistically significant because the number of patients was too small. 3 out of 4 patients were intermittently treated with anti-TNF agents though they were not in remission, and the hip joint space decreased. 1 patient used all three kinds of anti-TNF agents, but the effect was not enough. ESR, CRP, and BASDAI of the patient were consistently high and his symptoms were continued.

6 out of 10 patients have received the ongoing treatment regardless of their symptoms, and the hip joint space has significantly increased. 1 patient treated only with medication such as NSAIDs and DMARDs reached remission after anti-TNF treatment of a year.

Conclusion: There have been no reports of anti-TNF agent that inhibits cartilage loss in hip joint until now. This study suggests that anti-TNF agents have the protective effect of cartilage in AS. Although it is known that cartilage is not regenerated, some cases show actually the increase of hip joint space in this study. We suggest an additional large prospective case-control study to need anti-TNF agent’s hip joint protective effect.
In order to achieve the better outcome, the timing of referral and diagnosis of early arthritis should be optimized. We examine the time to referral of patients with joint symptoms, and diagnosis delay of RA and SpA in a rural community medical center in Japan.

**Methods:** A total of 556 who visited Kameda Medical Center from January 2009 to December 2010 with joint symptoms (arthralgia, joint swelling and/or morning stiffness) without any previous treatment except for NSAIDs were included. In the patients diagnosed as RA and SpA, the time intervals from the onset of symptoms to primary care physician (PCP) (patient delay), from PCP referral to a rheumatologist (PCP delay), from the onset of symptoms to rheumatology visit (total delay) were determined.

**Results:** Ninety-one patients were diagnosed as RA, 32 patients were diagnosed as SpA (17 Psoriatic arthritis, 8 SAPHO syndrome, and 7 Reactive Arthritis). The median patient, PCP, total delays [interquartile range (IQR)] were 8.9 weeks [2.6-27.9], 5 weeks [2-19.2], 27 weeks [11.4-60.1] for RA patients and 18.7 weeks [3-61.3], 4 weeks [1-9], 27.4 weeks [6.6-87.2] for SpA patients, respectively. The total delay was similar in both groups and the patient delay was longer than PCP delay, which was significant only for SpA patients \( p = 0.04 \), but not for RA patients \( p = 0.168 \). When analyzed in subgroups, the median total delay for reactive arthritis patients \( n = 7 \) was 4.3 weeks [3.7-7.7], which was shorter than for RA patients.

**Conclusion:** In a rural community medical center in Japan, the patient delay is longer than the PCP delay. Although the total delay was similar, the patient delay for SpA was longer than RA. This study indicates the key delay in early arthritis diagnosis in Japan.

**Disclosure statement:** The presenting author and all the other authors declared no conflicts of interest.

PP64. Abstract withdrawn.

PP65. Abstract withdrawn.

**PP66. SEXUAL FUNCTIONS IN MALE WITH ANKYLOSING SPONDYLITIS**

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**Background:** There are numerous studies investigating the impact of Ankylosing Spondylitis (AS) on sexual functions in male patients with the disease. However, the results are contradictory. New studies on this area are still necessary. Using International Index of Erectile Function (IIEF), the aim of this study was to determine the impact of AS on sexual functions in male patients, to compare with healthy controls and to identify the associations with demographic, disease-related variables and the level of depression in these patients.

**Methods:** A total of 40 male patients with AS and 27 healthy were included in the study. Bath Metrology Index, Bath AS Functional Index, Bath AS Disease Activity Index, Short Form-36 (SF-36), AS Quality of Life (ASQoL), IIEF and Beck Depression Inventory (BDI) were applied to the study population.

**Results:** Prevalence of ED in patients and healthy controls were 43.6% and 51.9%, respectively \( p = 0.512 \). No statistically significant differences were found between male patients and controls in the demographic characteristics, IIEF and BDI scores \( p > 0.05 \). When we compared patients according to tumor necrosis factor (TNF) usage, no statistically significant difference was found between TNF naïve patients and patients receiving TNF according to demographic characteristics, IIEF and BDI. TOTAL IIEF was correlated with C-reactive protein levels, chest expansion and BDI. Overall Satisfaction subscale of IIEF was correlated with ASQoL, Intercourse Satisfaction with Pain subscale of SF-36, Organic Function with Social Function subscale of SF-36.

**Conclusion:** Sexual function are common, but not different in male AS patients when compared with healthy controls. Sexual problems in male patients with AS seem to be associated with higher depression level, decreased quality of life, decreased chest expansion and C-reactive protein level. However, to achieve a better results of sexual functioning in AS patients, it might be better to evaluate the issue in the longitudinal follow-up.

**Disclosure statement:** The authors have declared no conflicts of interest.

**PP67. NOVEL THERAPIES DERIVED FROM ORIENTAL MEDICINE FOR ANKYLOSING SPONDYLITIS**

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**Background:** Ankylosing spondylitis (AS) is an autoimmune disease with chronic inflammation in joints that affects mainly axial skeleton with eventual fusion of the spine. There are no cures available but only treatments to relieve pain and symptoms, mainly through medications such as anti-inflammatory drugs, steroids or TNFα blockers. Unfortunately, there are some patients whose symptoms did not alleviate with current treatments. Our study was to investigate novel therapies to treat the symptoms of AS and reduce the inflammation.

**Methods:** The novel therapies were developed by combinatorial treatment derived from oriental medicine, including herbal tea and acupuncture to reduce pain and inflammation. The intensity of pain and stiffness were recorded based on patients’ score. The level of inflammation was determined by measuring C-reactive protein level in blood samples of patients. The treatments were performed on 3 AS patients for approximately 12 months.

**Results:** All three patients with AS were presented severe pain and stiffness around their axial joints, including spine and pelvis before treatments. Their initial CRP levels were ranged from 5 to 300 mg/L. After the combination of treatments, the CRP levels were reduced dramatically to normal level at 0–1 mg/L. The patients also experienced reduced pain where pain scores reduced from 10 to 0 or 1. The pain and stiffness of their joints of spines, knees and ankles disappeared after the treatments.

**Conclusions:** The study demonstrated a novel therapy derived from oriental medicine that can treat the symptoms of AS, suggesting alternative treatments for AS patients who did not experience any effect from conventional therapies.

**Disclosure statement:** The presenting authors have declared no conflicts of interest.

**NATURE AWARDS NA01–NA02**

NA01. RHEUMATOLOGIC BACKGROUND IN CANDIDATES OF VALVULAR HEART SURGERY: A SINGLE CENTER SURVEY

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**Background:** Valvular heart diseases are among the frequent causes of cardiac surgery. Some of the patients have a well known rheumatologic condition. Heart valves are fragile connective tissues which are vulnerable to any systemic autoimmune disease.

**Material and method:** We selected 120 patients who were candidates for valvular heart surgery who had not any known rheumatologic diagnosis. Careful history and physical examination undertaken from rheumatologic standpoint. The most sensitive screening serologic tests were also assayed.

**Results:** 53.3% were male and 46.6% were female with mean of 48.18 years old. 45.8% of patients had history of non-mechanical joint disease, 14.2% had history of rheumatologic conditions in their family, 30% had history of constitutional symptoms. 29.8% had positive joint findings in their physical exam. 26.7% had anemia of chronic disease. Rheumatoid factor, anti CCP, abnormal urine, elevated ESR, CRP, ANA in 34%, 2.5%, 5%, 36.7%, 26.7%, 4.2% respectively. ANCA, APA was positive in a few cases.

**Conclusion:** Above findings may show immunologic bases for most valvular heart diseases candidates for surgery. Undifferentiated connective tissue diseases may have an important role in pathophysiology of valvular damage.

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