PP01. AUTOINFLAMMATORY SYNOVITIS IN FAMILIAL MEDITERRANEAN FEVER IS CHARACTERIZED BY NUMEROUS NEUTROPHILS LACKING MYELOPEROXIDASE AND LYSOZYMÉ, MACROPHAGES, MATCELLS AND B CELLS, UP-REGULATION OF GALECTIN-1, P65 (REL A)/NF-ΚB AND INOS, BUT NOT COX-2

Walter Conca1 and Suhail Al-Salami2
1Dept. Internal Medicine, College of Medicine & Health Sciences, UAE University, Al Ain, UAE. 2Dept. Pathology, College of Medicine & Health Sciences, UAE University, Al Ain, UAE

Background: Arthritis in familial Mediterranean fever (FMF) is typically monoarticular, of sudden onset, self-limiting, rarely destructive, and a frequent manifestation of FMF. The mechanisms governing the initiation and resolution of this highly inflammatory disease entity are not fully understood. Therefore, to decipher the complexity of articular autoinflammation, we defined inflammatory cells and some mediators of the initiation and apoptosis in the synovial membrane of a patient with FMF.

Methods: A synovial tissue sample obtained from an inflamed hip joint of a boy homozygous for mutation M694I in pyrin/marenostrin was studied by immunohistochemistry using commercially available antibodies specific for trypstatin, CD68, CD3, CD20 and CD138. With the same technique, we also analyzed the expression and distribution of myeloperoxidase, lysozyme, galectin-1, galectin-3, p65 (RelA)/NF-κB, iNOS, COX-2 and activated caspase-3.

Results: Abundant neutrophils, macrophages and mast cells, but also B cells were observed, which were more numerous than T lymphocytes or plasma cells. Neutrophils had no granules containing myeloperoxidase or lysozyme in their cytoplasm. Galectin-1 was found in many mononuclear cells sparse throughout the synovial tissue, whereas the expression of galectin-3 was less prominent and scattered. Neither of the galectins was detected in neutrophils. p65 (RelA)/NF-κB and iNOS were both up-regulated in most of the inflammatory cells, whereas COX-2 expression was low, and cleaved caspase-3, used as proxy to demonstrate intrinsic apoptosis, was undetectable.

Conclusions: The exquisitely inflammatory, yet non-destructive character of FMF arthritis may correlate with the presence of non-pathogenic neutrophils lacking effector molecules and the preferential expression of iNOS and anti-inflammatory galectin-1 in regulatory cells of the innate immune system, most likely in macrophages. Intrinsic apoptosis seemed irrelevant for controlling synovial autoinflammation, but regulation through pyroptosis, mast cells and the adaptive immune system are possible alternatives.

PP02. OCHRANOTIC ARTHROPATHY IMICING AMYLOYSING SPONDYLITIS

Hui Jen Ding1, Alif Adlan Mohd Thabit1 and Heselynn Hussein1
1Department of Medicine, Putrajaya Hospital, Malaysia

Background: Ochronosis, or alkaptonuria, is a rare autosomal recessive metabolic disorder of tyrosine metabolism, leading to deposition of homogentisic acid in connective tissue, causing degenerative arthritis and spondylitis.

Case report: We present a 61 year old man with a history of dark urine and sweat, multiple peripheral joint pains and low back pain. He was told to have a metabolic disorder more than 20 years ago and has a strong family history of that disorder with five out of ten siblings similarly affected. He was first seen in the Orthopaedic Clinic for knee and shoulder osteoarthritis. He was referred to the Rheumatology Clinic for evaluation of features of ankylosing spondylitis based on ‘bamboo spine’ on spinal X-ray and a stooped posture. Clinically, he had bluish-black pigmentation of the pinna and a stooped posture and minimal movement in the spine. Radiographs showed scoliosis of the thoracolumbar spine with reduced intervertebral disc spaces and endplate sclerosis, multilevel ankylosis of the thoracolumbar spine, marginal osteophytes, no syndesmophytes and relatively preserved sacroiliac joint spaces, consistent with ochronotic spondyloarthropathy. Radiographs of knees and shoulders showed osteoarthritic changes. His urinary organic acid screen revealed high homogentisic acid levels, confirming the diagnosis. He is currently being treated conservatively for his arthropathy.

Conclusion: Ochronotic arthropathy commonly involves the spine and large, weight-bearing peripheral joints and can resemble ankylosing spondylitis. It frequently presents in mid-adulthood. This condition should be considered in cases of back pain with spinal deformity.

PP03. SPINAL RADIOMATIC CHANGES IN PATIENTS WITH AMYLOSING SPONDYLITIS: THE RELATIONSHIP WITH FUNCTIONAL OUTCOME

Ayyeigul Koç1, Altımy Gökse Karatepe1, Rezzan Günaydın1 and Gunes Kay1
1Izmir Bozyaka Training and Research Hospital, Department of Physical Medicine and Rehabilitation, Izmir, Turkey

Background: The aim of this study was to determine the factors associated with radiographic spinal damage in patients with ankylosing spondylitis (AS) and to investigate the effects of spinal radiographic changes and functional outcome, respectively.

Methods: Eighty-one patients with AS were recruited in the study. Clinical disease manifestations, laboratory and radiographic findings, and the scores of BASDAI, BASFI, and BASM1 were recorded. Patients were classified into 3 categories according to the spinal changes: (1) no AS-related spinal abnormalities; (2) syndesmophytes; and (3) spinal ankylosis. Ordinal logistic regressions and hierarchical regression analysis were performed to determine predictors of spinal radiographic changes and functional outcome, respectively.

Results: Spinal abnormalities were recorded in 71/81 patients (87.7%). Mean disease duration was 14.2±8.6 years, and mean score of BASDAI, BASFI, and BASMI were 3.4±2.1, 3.2±2.5, and 3.9±2.6, respectively. Male sex, hip involvement, and disease duration were associated with radiographic changes. Disease activity, hip involvement, peripheral arthritis, and spinal abnormalities were determined as predictors of functional outcome (r²=0.686, p<0.001). Disease activity was the most powerful predictor of the functional outcome; spinal changes explained 4.5% of the variance in BASFI.

Conclusion: We observed that spinal radiographic changes in patients with AS are seen more often in men and those with hip involvement and longer disease duration. Spinal abnormalities had less impact on physical function, while the disease activity was the strongest variable associated with physical function. In this study, determination of the similarity between the poor prognostic factors for AS and the factors that have impact on both spinal abnormalities and functional outcome is supported the fact that it should be paid more attention to the treatment and follow-up of the patients with these features.

PP04. CLINICAL USEFULNESS OF MULTIDETECTOR COMPUTED TOMOGRAPHY OF SACROILAC JOINT IN THE EVALUATION OF NON-ADVANCED AMYLOYSING SPONDYLITIS

You-Hyun Lee1, Won Park2, Hyo Jin Choi3, Seung Jae Hong4, Chan Hee Lee5, Chang-Hee Suh6, Ji Young Hwang1, Sun-Won Park2 and Jisoo Lee1
1Ewha Womans University School Of Medicine, 2Inha University School of Medicine, 3Gachon University Gil Medical Center, 4Kyunghee University, 5NHIC Ilsan Hospital, 6Ajou University, Korea

Background: Diagnosis of definite ankylosing spondylitis (AS) by modified New York (NY) criteria requires unilateral grade 3 or 4, bilateral grade 2 to 4 sacroiliitis documented by plain radiography. Due to low sensitivity of plain radiography, diagnosis of early stage AS is often difficult since many patients do not meet the radiographic criteria.

Objectives: To investigate the diagnostic value of multidetector computed tomography (MDCT) of sacroiliac (SI) joint in the evaluation of AS.

Methods: A multicenter cross-sectional study was performed in 7 tertiary hospitals in Korea. Plain radiography and MDCT of pelvis were
performed simultaneously for evaluation of SI joints. One hundred sixty-five patients with definite and probable AS were evaluated. Two radiologists analyzed images, and graded sacroiliitis on a scale of 0–4 according to the modified New York criteria. By consensus of participating rheumatologists and radiologists, the grading system of MDCT images was subdivided based on modified NY criteria (grade 2 as 2A, 2B and 2C). Patients with grade 4 on plain radiography were excluded. Clinical variables including disease duration, treatment duration, prescribed drugs, peripheral joint involvement, enthesisopathy, functional limitations and BASDAI were analyzed.

Results: More patients satisfied modified NY criteria by MDCT than the plain radiography (80% vs. 58.2%, p=0.0001). Therefore, 23% of patients who had uncertain diagnoses by plain radiography, were diagnosed with AS by MDCT. MDCT detected more bilateral sacroiliitis compared to the plain radiography (90.3% vs. 73.9%) and yielded in higher grade than plain radiography (30.3%; right SI joint, 27.9%; left SI joint). Higher grades of SI joint by both imaging methods correlated with longer disease duration, positive CRP, and positive schober test (p<0.05).

Conclusions: Visualization of sacroiliac joint by MDCT provided better diagnosis of AS especially during the early stage of the disease.

PP05. A HOSPITAL-BASED COHORT STUDY OF PATIENTS WITH ANKYLosing SPONDYLITIS

Ruey-Hong Wong,1,2, Li-Jie Shiu1, Chun-Huang Huang3, Hong-Shen Lee1,3 and James Cheng-Chung Wei2,4,5

1Institute of Physical Health, Chung Shan Medical University, Taichung, Taiwan, 2Department of Public Health, Chung Shan Medical University, Taichung, 3Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan, 4Department of Medicine, Chung Shan Medical University, Taichung, Taiwan, 5Division of Allergy, Immunology and Rheumatology, Chung Shan Medical University Hospital, Taichung, Taiwan

Background: Ankylosing spondylitis (AS) is an autoimmune disease. Relevant factors that influence the occurrence and progression of AS are poorly understood because of the heterogeneous nature of AS, long disease duration, and lack of appropriate and valid measuring instruments. Therefore, our purposes were to analyze the clinical epidemiology of AS and explore natural history of Taiwanese AS patients.

Methods: A total of 1065 AS patients were enrolled in our hospital-based cohort study. Questionnaires were administered on demographic data and clinical features. The Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Global Score (BAS-G), anthropometric indicators, biochemical variables and HLA-B27 status were also measured.

Results: The sex ratio of the study subjects was 2.5:1 in favor of men, mean age at diagnosis of 45.3±10.4 (standard deviation) years, mean age at disease onset was 27.7±9.6 years, and mean disease duration was 7.8 years. Male gender, early age at disease onset and presence of peripheral arthritis were correlated with the manifestation of clinical symptoms. Further, 457 AS patients were followed throughout disease progression continuously. Male patients with AS had a significant decrease in long-term BASDAI and BAS-G scores than did women patients with AS. Inflammatory bowel disease, fingertip-to-floor distance and CRP were significantly associated with increased long-term BASDAI scores of AS patients. Occiput-to-wall distance, fingertip-to-floor distance and CRP concentration were significantly associated with increased BAS-G scores from patients.

Conclusions: Gender, age of onset, and peripheral arthritis were correlated with the presence of clinical symptoms in AS patients. Gender, inflammatory bowel disease, mobility of lumbar spine, and inflammation in body might be predictive indicators for long-term disease activity in AS patients. Gender, mobility of cervical and lumbar spine as well as inflammation might be predictive indicators for long-term patients’ wellbeing status.

PP06. SUCCESSFUL TREATMENT WITH ANTI TUMOUR NECROSIS FACTOR (ANTI-TNF) OF PROTEINURIA IN A PATIENT WITH FAMILIAL MEDITERRANEAN FEVER (FMF) RESISTANT TO COLCHICINE: ANTI TNF DRUGS AND FMF

Erten Surkan1, Erten Serhat Fust6 and Attungolu Alpaslan3

1Atatürk Education and Research Hospital Division of Rheumatology, 2Ankara Oncology Education and Research Hospital Department of Neurosurgery, 3Atatürk Education and Research Hospital Division of Nephropathy, Ankara, Turkey

Introduction: Familial Mediterranean fever (FMF) is an autoinflammatory disease characterized by recurrent attacks of fever, peritonitis, pleuritis, and genetically by autosomal recessive inheritance [1]. The major renal involvement in FMF is the occurrence of amyloidosis that primarily affects the kidneys causing proteinuria but can be prevented by a daily regimen of colchicine [2]. Colchicine is the drug of choice in controlling the attacks and preventing the development of amyloidosis [3]. 5-10 % of cases with familial Mediterranean fever may be resistant to colchicine [4]. In literature, there is a controversy about treatment of FMF patients resistant to colchicine.

We describe a case with FMF, proteinuria and bilateral sacroiliitis, which responded to anti TNF (tumor necrosis factor) alpha therapy with infliximab and etanercept.

Case report: A 35 year-old male patient presented with fever, abdominal pain, malaise, and low back and ankle pain. When he was first examined for his severe back pain, he was demonstrated to have bilateral sacroiliac joints at 1995. At that time, he started to suffer from severe abdominal attacks almost twice a week, back and ankle pain and morning stiffness of 2 hours and diagnosed as FMF and colchicine 1 mg/day and sulfasalazine 1 g/day, and indometaine 0.2 g were started. At 2007, he was suffering from abdominal attacks, back and ankle pain, morning stiffness, severe myalgia, and malaise. The family history was negative for both spondiloarthritis and FMF. On physical examination, sacroiliac joints were painful and faber test was bilaterally positive. Lumber schober was 3 cm and chest expansion was 4 cm. Direct radiography and computerised tomography demonstrated bilateral sacroiliac joints. Laboratory evaluation yielded as erythrocyte sedimentation rate (ESR): 66 mm/h, C-reactive protein (CRP) 37 mg/l, albumin:2.1 g/dl, hemoglobin (Hb): 10.8 g/dl, ferritin 948, ng/ml 24 hour urinary protein extraction (UPE): 3306 mg/day (0-150) and 244.8 mg/dl (0-11.9). MEFV mutation test was homozogous for M694V. He was started a treatment with 5 mg/kg infliximab at weeks 0, 2, 6 and repeat infusions every 8 week. At the sixth dose, allergic symptoms like fever, chills and skin rash appeared and infliximab infusion stopped and etanercept was commenced in a few weeks. The patients also responded well to etanercept. The febrile abdominal attacks and joint symptoms didn’t recur. According to the last laboratory findings, urinary proteinuria was 144 mg/24h and 9.6 mg/dl and acute phase proteins returned to normal limits. He used etanecoxib twice a month and is in excellent condition four years after the start of anti-TNF alpha therapy.

Discussion: FMF, also known as recurrent polyserositis, periodic disease is the most prevalent periodic fever syndrome, which affects more than 10,000 patients worldwide [5]. Colchicine is widely used for the treatment of FMF with regard to its ability to strongly inhibit neutrophil chemotaxis [1]. Although colchicine is the unique drug effective in FMF, arthritis may be less responsive than fever and serositis [6]. In patients with FMF, a less likely involvement can be in the form of HLA B27 negative spondyloarthropathy (7). Our patient also has similar findings and may be considered to have FMF with some overlap of spondyloarthropathy features.

The role of anti-TNF agents in FMF has to be clarified. In a report, it was hypothesized that meroenostin/pyrin on neutrophils can adequately regulate the activity of caspase-1, which increases the production of IL-1 beta in response to the proinflammatory cytokines like TNF-alpha. Mutations in the MEFV gene may impair the regulatory function of meroenostin/pyrin resulting in febrile attacks through excessive production of inflammatory cytokines [1]. The presence of amyloidosis determines the prognosis of FMF patients. Regresssion of amyloidosis with anti TNF-alpha treatment was shown in a case report [5]. Although we could not demonstrate the presence of amyloidosis in this patient, disappearance of proteinuria after the anti-TNF alpha treatment was significant.

This is one of the few reports about successful treatment of FMF with proteinuria with anti-TNF alpha therapy.

Key words: familial Mediterranean fever (FMF), proteinuria, anti-TNF (tumor necrosis factor) alpha treatment.

PP07. EVIDENCE FOR THE EFFICACY OF COMPLEMENTARY AND ALTERNATIVE MEDICINES IN THE MANAGEMENT OF RHEUMATOID ARTHRITIS: A SYSTEMATIC REVIEW

Macfarlane Gary1, De Silva Vithiga1, El-Metwally Ashraf2,3, Moots Robert1 and the Arthritis Research UK working group on complementary and alternative medicines

1Aberdeen Pain Research Collaboration (Epidemiology Group), School of Medicine and Dentistry, University of Aberdeen, Scotland, United Kingdom, 2Department of Community Medicine, University of Ruhuna, Sri Lanka, 3King Abdullah International Medical Research Centre, King Saud Bin Abdulaziz University for Health Sciences,
The findings from Turkish Rheumatology Database—PP09. The rate and causes of switching among the application of the plant in painful and inflammatory conditions.

Conclusions: The presence of flavonoids, terpenoids and phenolic compounds. The results suggest the extract contains pharmacologically active principles. The result is in agreement with the local application of the plant in painful and inflammatory conditions.

PP08. ANTIINOCICEPTIVE AND ANTIINFLAMMATORY ACTIVITY OF THE HEXANE AND ETHYL ACETATE EXTRACTS OF CROTON MACROSTACHYUS STEM BARK

Marius Mbianta1, Telesepho Benoit Nguellefack1, Blanche Laure Ndonta2, Pierre Tane2 and Albert Kamanyi1

1Laboratory of Pharmaceutical Physiology and Phytopharmacology, Faculty of Science, University of Dschang, Dschang, Cameroon, 2Laboratory of Natural Products, Faculty of Science, University of Dschang, Dschang, Cameroon

Background: The hexane and ethyl acetate extracts of the stem bark of Croton macrostachyus (family Euphorbiaceae) was investigated for possible anti-nociceptive and anti-inflammatory effects in mice and rats.

Methods: Three models were used to study the extracts effects on nociception which were the acetic acid-induced abdominal constriction test, formalin test (both in mice) and the analgesymeter test in rats.

Results: The study revealed the extracts to have significant (P < 0.001) anti-nociceptive effect at a dose of 600 mg/kg p.o. in mice and rats in all the models for anti-nociception while 300 mg/kg p.o. shown significant (P < 0.001) effect in the acetic acid-induced abdominal constriction test and in the formalin test. The two extracts also exhibited acute and chronic anti-inflammatory effects which were found to be significant (P < 0.001) at 600 mg/kg p.o. in the rats tested. Prophylactic screening of the extracts revealed the presence of alkaloids, terpenoids and phenolic compounds in the hexane extract; whereas the ethyl acetate extract showed the presence of flavonoids, terpenoids and phenolic compounds.

Conclusions: The review found that there were reported RCTs available for only 16 CAMs in the management of RA. There was not consistent evidence available for any of the reviewed substances which suggested that they were efficacious as complementary medicines to standard treatment. Most of the CAM compounds studied were free of major adverse effects.

Conclusion: The major limitation in reviewing the evidence is the paucity of RCTs in the area. One or two published positive results in the context of few trials, may be as a result of publication bias. Nevertheless the available evidence does not support their use in the management of RA.

PP09. THE RATE AND CAUSES OF SWITCHING AMONG THE RHEUMATIC PATIENTS UNDER BIOLOGIC THERAPY: FINDINGS FROM TURKISH RHEUMATOLOGY DATABASE-ROMADIGITAL

Omer Karadag1,2,2, Sedat Yilmaz1,2, Bursa University Kiscak2,3, Umut Kalyoncu4, Enjin Tsezci4, Sinem Yilmaz4, Metin Ozgen5, Derya Kaskan6, Haner Direskeneli6, Sedat Kiraz6, Ihsan Ertenli6 and Ayhan Dinc6

1Gulhane School of Medicine, Divisions and Clinics of Rheumatology, Turkey, 2Hacettepe University Faculty of Medicine, Divisions and Clinics of Rheumatology, Turkey, 3Gazi University Faculty of Medicine, Divisions and Clinics of Rheumatology, Turkey, 4Gazi University Faculty of Medicine, Divisions and Clinics of Rheumatology, Turkey, 5Gazi University Faculty of Medicine, Divisions and Clinics of Rheumatology, Turkey, 6Baskent University Faculty of Medicine, Divisions and Clinics of Rheumatology, Turkey, 7Baskent University Faculty of Medicine, Divisions of Rheumatology, Turkey, 8Marmara University Faculty of Medicine, Divisions and Clinics of Rheumatology, Turkey, 9Diyarbakir Education and Research Hospital, Divisions and Clinics of Rheumatology, Turkey

Background: In rheumatic diseases although biologics are effective, in case of ineffectiveness and/or adverse events, not seen rarely, switching between those drugs could be required. Registry databases seem to be important for real-life effectiveness and safety of biologics. For that aim, “Society for Research and Education in Rheumatology” of Turkey has introduced a web-based database called RomaDigital.

Objectives: Based on RomaDigital database, this study aimed to investigate switch rates among different biologics. The time to first and other switches; the reasons for switches were also analyzed.

Methods: Patients data were entered online basis to the RomaDigital database system from nine rheumatology clinics from various regions of Turkey. In addition to demographic data, disease and treatment characteristics including disease activity (DAS 28 and BASDAI) were obtained.

Results: A total of 1180 patients (male/female: 652/528) were evaluated. Disease percentage distribution was as follows; AS: 62.7%, RA: 33.3% and PsA: 4.0%. Mean disease duration of RA and AS were 10.4± 8.4 and 11.4± 9.1 years, respectively. After the diagnosis, time to the first anti-TNF agent was 8.9 years for RA and 88.8 years for AS. The first anti-TNF drug was used on before switch therapy for 16.1 and 18.0 months, for RA and AS, in that order. For RA patients, 65 (16.5%) patients were switched to 2nd anti-TNF and 8 (2.0%) patients were switched to 3rd anti-TNF drug. A total of forty eight patients had received rituximab. Causes for switching were initial non effectiveness (50.7%), adverse events (25.7%), and secondary effect lose (18.6%). For AS patients, 142 (19.2%) patients were switched to 2nd anti-TNF and 22 (2.9%) patients were switched to 3rd anti-TNF drug. Causes for switching were initial non effectiveness (41.1%), adverse events (29.7%) and secondary effect lose (17.7%). Most frequent adverse events were skin reactions, nonspecific infections, ocular disorders, tuberculosis, malignancy, hepatobiliary changes.

Conclusion: In Turkey, AS patients constitute a larger population who use biologics. Rheumatic patients are under a regular follow-up to monitor disease activity and adverse events by rheumatologists. As a result of this close observation, switching is a common treatment strategy.

PP10. INVESTIGATION OF EFFECTS OF TWO DIFFERENT TREATMENT MODALITIES ON NERVE CONDUCTION IN PATIENTS WITH ANKYLOSING SPONDYLITIS

Erhan Capkin1, Murat Karkucak2, Muammer Muslim Kose3, Vildan Altunayoglu Çakmak3, Aysegul Kucukcu Turkylizmaz2 and Mehmet Tosun1

1Karadeniz Technical University, Dept. of Physical Medicine and Rehabilitation, Division of Rheumatology, Trabzon,Turkey, 2Karadeniz Technical University, Department of Neurology Trabzon, Turkey, 3Specialist in Physical Medicine and Rehabilitation, Rize, Turkey

Background: Tumor necrosis factor-α (TNF-α) plays a major role in many aspects of immune-response regulation and T-cell-mediated diseases. TNF-α antagonists have become increasingly used, and there have been a number of reports of demyelinating (peripheral and central nervous system) events in patients receiving Anti TNF-α therapy. The objective of this study was to investigate any relationship between peripheral neuropathy and Anti TNF-α therapy used in ankylosing spondylitis (AS).

Material and Methods: Thirty-nine patients monitored in our clinic with a diagnosis of AS and without neuropathic symptoms were enrolled in the study. Patients were divided into two groups. The first consisted of 21 patients using biological agents for more than one year. The control group was made up of 18 patients of similar age and demographic characteristics receiving non-biological therapy. Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) scores were calculated and sedimentation rate and C reactive protein (CRP) levels measured. Motor and sensory nerve conduction analysis for the median, tibial, and sural nerves was performed. The nerve conduction results of the biological therapy group were then compared with those of the non-biological therapy group.

Results: Thirty-nine patients with a mean age of 37.0±5.8 were enrolled. Patients were divided into two groups, depending on drugs used. The first group (using Anti TNF-α) consisted of 21 patients with a mean age of 42.2±8.8, and the second (the non-biological group) of 18 patients with a mean age of 35.6±7.5. There was a statistically significant difference between the groups in terms of age, sex, drug

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use or duration of disease (p=0.052, p=0.55, p=0.33 and p=0.72, respectively). Sedimentation rate, CRP and BASDAI scores were statistically significantly higher in the second group (p=0.04, p=0.03 and p=0.009 respectively). No statistically significant difference was determined in any parameters at nerve conduction analysis between the two groups (p>0.05). There was a positive correlation between sedimentation rate and median sensory conduction velocity (p=0.02, r=-0.48) and tibial conduction velocity (p=0.07, r=-0.43). A negative correlation was determined between duration of disease and median distal motor latency (p=0.22, r=-0.37) and between length of drug use and median sensory conduction velocity (p=0.02 r=-0.38). There was no correlation between other clinical and demographic data and nerve conduction parameters.

Conclusion: No effect on nerve conduction of biological agents in AS patients without neurological symptoms was determined. Clinicians should be alert for signs and symptoms suggesting neuropathy in patients given Anti TNF-a.

PP11. IS THERE AN ASSOCIATION BETWEEN SERUM 25-HYDROXY VITAMIN D CONCENTRATIONS AND DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS?

Tuba Baykal1, Kazim Senel1, Filiz Alp1, Akin Erdal1 and Mahir Ugur1
1Ataturk University, Medicine Faculty, Dept. of Physical Medicine and Rehabilitation, Erzunun, Turkey

Background: Recently, it has been recognised that vitamin D not only is important for calcium metabolism and maintenance of bone health, but also plays an important role in reducing risk of many chronic diseases including rheumatoid arthritis (RA), systemic lupus erythematosus, insulin-dependent diabetes mellitus, multiple sclerosis, several cancers, heart and infectious diseases. Several studies have reported that low vitamin D levels have been found in patients with RA.

Methods: The objective of this present study was to determine serum 25-hydroxy vitamin D2/3(OH)D concentrations in patients with RA and to establish its correlation with disease activity. This study was performed fifty-five consecutive patients RA fulfilling ACR criteria for the classification of RA and forty-five healthy subjects. Serum 25(OH)D levels were measured using Elecsys 25(OH)D reactive kit. Disease activity was assessed according to DAS 28, the erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP). The associations between serum levels of 25(OH)D and age, gender, disease duration, and disease activity were assessed correlations with the clinical features, laboratory results, and demographic variables were established.

Results: Vitamin D deficiency (i.e. <30 ng/ml) was found in 50 patients (80.9%). The mean serum 25 ((OH) D levels were significantly decreased in RA patients compared with healty controls (p<0.01) and we associated with higher levels of parathyroid hormone. We not found the correlation between serum 25 (OH) D levels and disease activity parameters.

Conclusions: Our findings have demonstrate that serum 25 (OH) D levels is common in patients with RA. We believe that it will be helpful to investigate the vitamin D levels in order to determine the osteoporosis risk of RA patients.

PP12. THE EFFECT OF ANTI-CCP ANTIBODIES ON SYNOVIAL FLUID OXIDANT AND ANTI-OXIDANT ACTIVITIES IN PATIENTS WITH RHEUMATOID ARTHRITIS

Levent Ediz1, Yasin Tuluce2, Halil Ozkol2, Ozcan HЗ2, Elf Guilcu1 and Murat Toprak1
1Yuzuncu Yil University, Medical Faculty, Department of Physical Medicine Rehabilitation and Rheumatology, Van, Turkey. 2Yuzuncu Yil University, Medical Faculty, Department of Medical Biology, Van, Turkey.

Objectives: The relationship between anti CCP antibodies and oxidant, anti-oxidant activity in patients with RA has not been elucidated in the previous studies. In this study we aimed to investigate the effect of anti-CCP antibodies on synovial fluid oxidant and anti-oxidant activity in patients with RA.

Methods: RA patients with anti-CCP (+) (n=27) and anti-CCP (-) (n=28) were recruited into the study. All patients had a positive rheumatoid factor (RF). The patients were treated with only non-steroidal antiinflammatory drugs (NSAID) at the study time included in the study. Catalase (CAT), Glutathione peroxidase (GSHPx), Myeloperoxidase (MPO) activities and the levels of Malondialdehyde (MDA) were measured in synovial fluid in both groups.

Results: There was increased synovial oxidant activity (MDA and MPO levels) (p<0.05) in anti-CCP(+) patients with RA when compared with anti-CCP(-) patients. There was positive correlation between anti-CCP antibody levels and synovial MDA and MPO levels (r=0.418, p=0.05, r=0.579, p=0.05 respectively) in anti-CCP (+) group. There were no significant differences in terms of synovial fluid CAT and GSHPx activity between the groups.

Conclusions: In conclusion, anti-CCP antibody positivity seems to be associated with increased synovial fluid oxidant activity (increased MDA and MPO levels) in patients with RA. This increased oxidative activity in synovial fluid may be one of the responsible factors for accelerated bone erosions seen in anti-CCP positive RA patients. These conclusions need to be validated in a larger controlled study population.

PP13. ANTIBODIES OF IGG, IGA AND IGM ISOTYPES AGAINST CYCLIC CITRULLINATED PEPTIDE PRECEDE THE DEVELOPMENT OF RHEUMATOID ARTHRITIS

Heidi Kokkonen1, Mohammed Mullazeh2, Johan Rönnelid2 and Solbritt Rantapää-Dahlvist1
1Department of Public Health and Clinical Medicine, Umeå University, 2Division of Clinical Immunology, Uppsala University, Uppsala, Sweden

Background: The presence and predictive value of isotypes, IgG, IgA and IgM, of anti-CCP antibodies in individuals before onset of symptoms of RA and their relation to rheumatoid factors (RF), cytokines and chemokines, and smoking habits, were assessed.

Methods: A case-control study was nested within the Medical Biobank and the Maternity cohorts of Northern Sweden. RA-patients were identified amongst blood donors antedating onset of symptoms by years by analyzing the registers. Controls, matched for age, sex, date of sampling and residential area, were selected randomly from the same cohorts. Anti-CCP antibody isotypes were determined using EliA anti-CCP assay on ImmunoCAP 250 (Phadia Diagnostic AB, Uppsala, Sweden)

Results: 86 individuals had donated blood prior to onset of symptoms, mean ±SD, 4.4±5.0 years. The prevalence of anti-CCP antibodies in the pre-patient samples was 35.2% of IgG, 23.9% of IgA, and 11.8% of IgM with a specificity of 98.9%, 97.1% and 93.9%, respectively. IgG- and IgA anti-CCP antibodies were highly significant, whereas the IgM isotype did not reach statistical significance vs. controls. Anti-CCP antibody of the IgG and IgA isoype predicted RA significantly in conditional logistic regression models (OR=9.1, 95% CI (13.3-723.6) and OR=13.3, 95% CI (4.9-36.0), respectively). The mean antedating time was longest for IgA isoype, 2.2 years, followed by IgG, 2.1 years and for IgM, shortest, 1.4 years. The frequencies of the isotypes increased significantly until disease onset and where at diagnosis of RA 70%, 40% and 30%, respectively. IgA antibodies were significantly associated with up-regulated chemokines. In smokers IgA antibodies appeared much earlier before onset of symptoms. Individuals positive for all three isotypes before onset of symptoms had a higher radiographic score both at baseline and after 24 months of disease.

Conclusions: Anti-CCP antibodies of IgG and IgA isotypes pre-dated the onset of RA by several years, and predicted the development of RA, with the highest predictive value for IgG antibodies.

PP14. RADIOLOGICAL FINDINGS OF DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS

Hatice Bodur1
1Turkish League Against Rheumatism(TLAR)- Rheumatoid Arthritis Study Group, Turkey

Background: Rheumatoid arthritis (RA) characterizes with cartilage and bone destruction affecting the patients’ activity and functional capacity. We evaluated the relationship between radiological findings and activity and functional capacity of the patients.

Methods: Two thousand three hundred fifty-nine adult RA patients were evaluated. Disease activity scores (DAS28) and Health Assessment Questionnaire (HAQ) scores were assessed. Analyses restricted to 707 patients with complete data.

Results: Bone erosion (BE) and joint-space narrowing (JN) was noted 46.8% and 50.1% of the patients in hand, respectively, whereas 35.6% and 36.4% of the patients in foot, respectively. The presence of JN in hand was higher in patients with the disease onset age <16 years. While the DAS28 scores were higher in patients with BE and/or JN in hand, there were no significant differences between DAS28 scores of patients according to the presence of BE and/or JN in foot. The HAQ scores were higher in patients with BE and/or JN in hand.
Ankylosing spondylitis is a chronic autoimmune inflammatory disease. There was no significant relationship between the mean MSS and the number of swollen joints and the mean DAS28 score. A very weak positive correlation was noted between the mean MSS and the number of tender as well as stiff joints. There was a significant positive correlation between the MSS and total HAQ score.

Conclusions: The primary goal of RA treatment is to improve the physical and functional capacities of the patients. Joint and bone destructions may lead to sequelae when measures are not taken during the early period. In addition to clinical evaluation, RA patients should also be followed-up with radiological examination.

Disclosure statement: The results of this study were derived from analysis of the data which were obtained from the TRASD-IP (the registry project for long-term rheumatoid arthritis patients in Turkey) conducted by the Turkish League Against Rheumatism (TLAR). This project was supported by an independent educational grant from Pfizer.

PP15. PARAMETERS FOR THE EVALUATION OF DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS
Aylin Rezvani1
1Turkish League Against Rheumatism(TLAR)- Rheumatoid Arthritis Study Group, Turkey

Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease and control of disease activity is the mainstay of treatment. In this study we evaluated the relationship between disease activity parameters and physical-functional capacity of the patients.

Methods: Two thousand three hundred fifty-nine adult RA patients were evaluated and their physical examination and laboratory findings were recorded. Disease activity scores (DAS28) and Health Assessment Questionnaire (HAQ) scores were assessed. Analyses restricted to patients with complete data.

Results: The mean DAS28 score of 693 patients was 3.9±1.5. Of the patients 20.2%, 17.6%, 40.1% and 22.1% were in remission, low disease activity, moderate disease activity and high disease activity category, respectively. The remission rate was lower in the patients with knee deformity and/or anemia. There were no significant differences between the DAS28 scores according to rheumatoid factor (RF) positivity. A positive correlation was noted between the mean DAS28 score and Erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), and hemoglobin levels. The mean HAQ-score of 694 patients was 0.9±0.8. There were no significant differences between the HAQ-scores according to SF36, but the HAQ-scores were higher in anemic patients. HAQ-score was positively correlated with ESR and CRP levels, and negatively correlated with hemoglobin levels. The mean number of tender, swollen and stiff joints was 6.7±10.1, 14.1±3.7 and 1±1.3, respectively, and positively correlated with HAQ-score.

Conclusions: RA restricts the patient’s activity both during the active and long-term periods. Thus, RA impairs the quality of life of the patients and leads to workforce loss. ESR and CRP, simple and widely available laboratory parameters, are useful in monitoring disease activity.

Disclosure statement: The results of this study were derived from analysis of the data which were obtained from the TRASD-IP (the registry project for long-term rheumatoid arthritis patients in Turkey) conducted by the Turkish League Against Rheumatism (TLAR). This project was supported by an independent educational grant from Pfizer.

PP16. TNF ALPHA AND CRP LEVELS CHARACTERISATION IN ANKYLOSING Spondylitis patients due TO DISEASE ACTIVITY AND RADIOLOGICAL DATA IN PAULS STRADINS CLINICAL UNIVERSITY HOSPITAL
Daina Andersone1, Inita Bula1 and Inta Jaunalkalne2
1Latvian University, Pauls Stradins Clinical University Hospital, 2Pauls Stradins Clinical University Hospital, Riga, Latvia

Background: Ankylosing spondylitis is a chronic autoimmune inflammatory disease. There are many different factors for prediction of the course of the disease. To assess data out in ankylosing spondylitis patients retrospective study had performed in Pauls Stradins Clinical University Hospital, Center of Rheumatology in 2009-2010.

Methods: The data about 11 ankylosing spondylitis patients had been collected. The data about CRP,BASDAI, m-SASSS and level of TNF alfa in blood serum had been analyzed during our study.

Results: Duration of the disease of the patients was 1 till 23 (average=8.8) years and the age of the patients was 18 till 41 (average=32.7). BASDAI levels 5.1 ±1.62, CRP levels 10.8±average ±9.83(SD) mg/l, m-SASSS 37.5± (average=±25.67(SD), TNF alfa levels in blood serum 21.83(average)=/14.02(SD). Results of comparison of our data CRP vs BASDAI (p=0.044), BASDAI vs TNF alfa (p=0.0004), TNF alfa vs CRP (p=0.02), m-SASSS vs CRP(p=0.04), m-SASSS vs TNF alfa (p=0.2).

Conclusion: Our data show important role of BASDAI, m-SASSS, CRP and TNF alfa in our population of ankylosing spondylitis patients. The data illustrates different importance in inflammatory process markers-CRP and TNF alfa in ankylosing spondylitis pathogenesis due to BASDAI and m-SASSS. There is no difference in TNF alfa and CRP levels, but there is difference in CRP vs BASDAI and TNF alfa and BASDAI levels, but no difference in CRP vs m-SASSS and TNF vs m-SASSS. TNF alfa levels show more active disease in our patients population compare to CRP levels but we have not find difference in CRP and TNF alfa levels and radiological ankylosing spondylitis score m-SASSS.

PP17. WITHDRAWN

PP18. METABOLIC SYNDROME IN PATIENTS WITH ANKYLOSING SPONDYLODYSIS
Ibrahim Batmaz1, Mehmet Karaçoğ1, Selma Yazıcı1, Remzi Çevik1, Kemal Nas1, Ayşegül Jale Sarac1 and Zualih Altıgarn1
1Departments of Physical Medicine and Rehabilitation, Antalya, Turkey
2Cardiology, School of Medicine, Dicle University, Diyarbakir, Turkey

Background: The objective of this study was to investigate the occurrence of Metabolic Syndrome (MS) and to evaluate the relation between MS and clinical parameters in patients with ankylosing spondylitis (AS).

Methods: 50 with AS fulfilling the modified 1984 New York criteria for AS, and 44 age- and sex matched controls were included. Assessment of MS was made according to the diagnostic criteria of the National Cholesterol Education Program Adult Treatment Panel III Report (NCEP ATP III). Functional status and disease activity were evaluated by Bath Ankylosing Spondylitis Functional Index (BASFI) and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) for AS.

Results: MS was found in 6/50(12%) AS and in 2/44(4.5%) controls (p=0.05). However triglycerides (p=0.000), and HDL cholesterol (p=0.000) were found significantly higher in AS than controls. There were not significant differences in disease duration, and functional and clinical activity indices between AS patients with MS and without MS.

Conclusions: This study did not find a higher occurrence of MS in AS patients. There is need to carry out further and larger studies for assessment of MS in AS.

PP19. PREVALENCE OF RESTLESS LEGS SYNDROME WITH KNEE OSTEOARTHRITIS
Serdar Budak1 and Mehmet I. Arman1
1Departments of Physical Medicine Rehabilitation and Rheumatology, Akdeniz University Faculty of Medicine, Antalya, Turkey

Background: Restless legs syndrome (RLS) is a common neurological condition. We investigated the prevalence of RLS in patients with knee osteoarthritis (OA).

Methods: Patients included the study were divided into two groups, as OA group and control group. OA group consist of patients fulfilling the ACR criterias. Control group consist of the patients with epicondylitis, bursitis, tendinitis on the upper extremities who has no ACR criterias. OA group patients were questioned about International Restless Legs Syndrome Study Group (RLSSG) RLS basic diagnosis criteria, demographic datas and the RLS rating scales. Their first diagnosis was also noted. In OA group patients, Western Ontario and McMaster Universities OA Index (WOMAC) was filled and they were questioned about the duration of the RLS. Radiologically staging was also performed.

Results: In the study, RLS prevalence was found 26% in OA group and 9% in control group respectively. Mean RLS rating scores of RLS patients were compared between OA and control group. In OA group and control group RLS patients’ mean RLS rating score was found

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16.81 (±6.82) and 11.22 (±3.38) respectively. In OA group, WOMAC OA index were also evaluated and the score was found 52.19 (±18.56) in RLS patients and 39.85 (±17.20) in non-RLS patients. The rate of correct diagnosis in OA and control group was 19.23% and 33.33%, respectively.

Conclusions: This study showed that RLS prevalence is significantly higher in OA group than normal population. Coexisting of OA and RLS aggravates the symptoms. 25% of RLS patients are diagnosed truly. When evaluating the patients with knee OA, they should certainly be questioned about RLS.

PP20. IMPACT OF ANKYLOSING SPONDYLITIS ON PRODUCTIVITY, SICK LEAVE AND PRESENTEEISM IN TURKISH PEOPLE

Emel Ozcan1, Sinem Esmaeilzadeh2, Ekin Sen1 and Tugba Bayak1
1Department of Physical Medicine and Rehabilitation, Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey
2Department of Physical Medicine and Rehabilitation, Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey

Background: The aim of this study is to evaluate the work status and sick leave in patients with AS and to determine the relationship between work productivity and functional status, also between presenteeism and disease activity among Turkish people.

Methods: A total number of 41 patients who had AS and referred to the Rheumatology Unit of the Departmental Physical Medicine and Rehabilitation in Istanbul Faculty of Medicine were consecutively included in this study. All patients completed a self-reported questionnaire on demographic and work-related characteristics of the participants. The impact of AS on work productivity and presenteeism were examined with Visual Analogue Scale (VAS), activities of daily living and disease activity were assessed with the Bath Ankylosing Spondylitis Functional Index (BASFI) and the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), respectively. The Spearman’s test was used to determine the relationship between various parameters.

Results: The mean age of the patient was 38.74±13.38 year, 68.3% (n=28) had paid work and 31.7% (n=13) had unpaid work. In patients with paid work, 17.9% (n=5) lost workday due to AS and 28.6% (n=8) had workday loss related to reasons other than AS in the last week. There was a significant relationship between presenteeism on the last workday and BASFI (r=0.821, p<0.001) scores, also between presenteeism on the last workday and BASDAI (r=0.654, p<0.001) scores. While there was a significant (negative) relationship between productivity in the last week and BASDAI scores (r=-0.435, p<0.021), there was not observed any significant relationship between productivity and BASFI scores (r=-0.254, p=0.193).

Conclusions: These findings suggest that any increase in the disease activity in patients with AS results in more presenteeism and less productivity. Beside the treatment of AS, the evaluation and improvement in work status will increase the efficacy of management protocols and rehabilitation approaches.

PP21. TH17 CYTOKINE PROFILE AND ITS ASSOCIATIONS WITH THE WNT PATHWAY OSTEOCLASTOSIS IN PSORIATIC ARTHRITIS

Ömür Kayıkçı1, Ömer Nuri Pamuk1, Özge Aranc1, Salim Dönmez2, Gülsum Emel Pamuk1 and Necati Çakır1
1Trakya University Medical School, Edirne, Turkey, 2Fatih Sultan Mehmet Hospital Istanbul, Istanbul, Turkey

Introduction: We evaluated Th17 group cytokine profile which has a plays an important role in inflammatory diseases and parameters in Wnt pathway and osteoclastogenesis which have important roles in bone formation and destruction.

Material and Methods: We included 48 PsA patients (21M, 27F, age:48±5;11,9), 20 psoriasis patients (9M, 11, age:49±2;10,3) and 19 healthy control (8M, 11F, age:47±3;1,8) into the study. Their PASI scores were evaluated by a dermatologist. ESR, CRP levels and with ELISA levels of Th17 group cytokines (IL-17, IL-22, IL-23, Wnt pathway inhibitor DKK-1 and a marker of osteoclastogenesis, soluble RANKL) were determined.

Results: The duration of arthritis for PsA patients was 81.7±96 months. The biochemical parameters in PsA, psoriasis patients and in the control group are seen in Table 1. IL-17 levels in PsA group were significantly lower than in psoriasis group (p values, 0.005 and <0.001). IL-22 levels in the control group were significantly higher than in the PsA group (p<0.001). Serum IL-23 levels in PsA and in psoriasis group were significantly lower than in the control group (p values, respectively <0.001 and 0.014). In addition, sRANKL levels in the control group were significantly higher than in both psoriasis and in PsA groups (both p values<0.001).

The number of swollen joints in PsA patients correlated with IL-17 (r=0.534, p<0.001), DKK-1 (r=0.3, p=0.04) levels and PASI scores (r=0.28, p=0.05). In addition, DKK-1 levels were significantly corre- lated with CRP (r=0.33, p<0.03). There was a correlation between IL-22 levels and sRANKL in PsA patients (r=0.67, p<0.001).

Conclusions: Interestingly, we found significantly suppressed levels of Th17 group cytokines in PsA. Other interesting results were the correlations of Th17 group cytokine IL-17 with the number of the tender joints associated with the activity of PsA and also the correlation between the level of IL-22 and sRANKL associated with osteoclastogenesis.

PP22. A COMPARISON OF THE PAIN INTENSITY, DEPRESSION AND QUALITY OF LIFE IN PATIENTS WITH INFLAMMATORY AND NONINFLAMMATORY LOCOMOTOR SYSTEM PAIN

Halil Koyuncu1, Kerem Gün1, Murat Uludağ2, Nurettin İrem Önerçek2, Sibel Süzen1, Hasan Battal1 and Şafak Karamehmetoğlu1
1Cerrahpaşa Tip Fakültesi Fiziksel Tıp ve Rehabiliteşyon Anabilim Dalı, İstanbul, Turkey

Background: Musculoskeletal pain is known to have negative effects on the general health and quality of life. We investigated pain intensity, general health and quality of life of patients with two basic pain patterns.

Methods: Study were included 126 patients of all admitted with low back, neck, knee, hip and leg pain to our clinic for 1 month. According to the diagnosis and pain features, patients were separated into two groups; inflammatory pain (IP) and noninflammatory pain (NIP). Patients assessed for pain intensity (visual analog scale–VAS), quality of life (Short Form–SF)-36 and depression (Hamilton depression scale).

Results: One hundred and three (34 men, 69 women) of the 126 patients (45 men, 81 women) were diagnosed as NIP and 23 patients (11 men, 12 women) as IP. The number of diagnoses was as follows: Spondylosis (51), Peripheral joint osteoarthritis (19), soft tissue disorders (11), mixed degenerative joint disorders (13), spondyloarthopathies (19), and rheumatoid arthritis (4). The mean age of IP and IP patients was 53 ± 11 and 45 ± 11, respectively.

The mean complaint time for NIP and IP groups was 43 months (1-500/70) and 127 (6-300/106) months, respectively. Physical and mental health assessment in SF-36 was worse in IP group compared to in NIP group. The mean scores of NIP group were 6.7 ± 1.2 for VAS, and 5.3 ± 2.2 for Hamilton depression scores and the mean scores of IP group were 7.3 ± 0.9 for VAS, and 7.7 ± 2.8 for Hamilton depression scores. All values obtained from IP group was found to be higher than NIP group (p<0.05).

Conclusion: Patients with IP might have higher pain intensity and depression scores and the lower quality of life compared to patients with NIP.

PP23. ELEVATED LEVELS OF VASCULAR ENDOTHELIAL GROWTH FACTOR IN PATIENTS WITH ACTIVE ANKYLOSING SPONDYLITIS

Kazım Sene1, Tuba Baykal1, Fatih Baygutalp1, Ahmet Kıziltunç2 and Matar Ünar1
1Atatürk University, Medical Faculty, Dept. Of Physical Medicine and Rehabilitation, Erzurum, Turkey, 2Atatürk University, Medicine Faculty, Dept. of Biochemistry, Erzurum, Turkey

Background: Angiogenesis is an important process in the pathogen- esis of chronic inflammatory disorder. The vasculature is also involved in the pathogenesis of spondyloarthopathies. Increased vascular endothelial growth factor (VEGF) plays a crucial role in angiogenesis.

Methods: This study was performed to determine the serum levels of VEGF in patients with AS and to evaluate its correlation with disease
activity. Serum samples were collected from 25 patients (16 male, 9 female) with active AS and 20 healthy subjects (13 male, 7 female). Serum VEGF levels were measured using a quantitative sandwich enzyme-linked immunosorbent assay technique according to manufacturer’s instructions, and disease activity was assessed according to the Bath AS disease activity index (BASDAI), the erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP). The demographic data, the clinical characteristics, the laboratory results were recorded.

Results: Serum VEGF levels were significantly elevated in active AS patients as compared to healthy controls (p < 0.01). VEGF concentrations were correlated with BASDAI (r = 0.690, p < 0.01), CRP levels (r = 0.255, p < 0.01), in AS patients.

Conclusions: We have demonstrated that VEGF concentrations were elevated in AS. patients and our results suggests a possible role in the disease activity in patients with AS.

PP24. ANKYLOSING SPONDYLITIS ASSOCIATED WITH TAKAYASU ARTERITIS

Suleyman Yildirim1, Guen Hatemi1, Sebahattin Yurdakul1, Izzet Fresko1 and Huri Ozdogan1

1Istanbul University, Cerrahpasa Medical School, Rheumatology, Turkey

Background: A number of case reports have been published on the association of Takayasu arteritis with ankylosing spondylitis. The aim of this study is to formally evaluate Takayasu patients for ankylosing spondylitis (AS).

Methods: All patients who were followed with a diagnosis of Takayasu arteritis in our clinic were evaluated. Apart from the 114 Takayasu patients who fulfill ACR criteria, 77 rheumatoid arthritis and 29 AS patients were included as controls. Patients were questioned for inflammatory back pain, arthritis and heel pain with a previously validated questionnaire for screening zero spondylarthropathies. Patients who gave an affirmative answer to at least one of the questions were further evaluated with physical examination and sacroiliac radiograms. Radiograms were evaluated twice on 2 separate days by 3 rheumatologists blinded to each others observations and graded according to modified New York criteria. Patients who had bilateral grade 2 or unilateral grade 3 or 4 sacroiliitis on at least 3 of 6 observations were diagnosed as ankylosing spondylitis.

Results: Among the 114 patients with Takayasu arteritis 14 had died. Two of these patients had been diagnosed as AS, and one of them also as Crohn’s disease before they died. Among the remaining 100 patients 4 already had a diagnosis of AS, one of them with accompanying Crohn’s disease. We were able to reach 75 of the remaining 96 patients. 38 gave an affirmative answer to at least one of the questions, 29 of these 38 patients agreed to come to the clinic for further evaluation. Two of these 29 patients had sacroiliitis. One of them had a diagnosis of Crohn’s disease. Among the controls 2/77 RA (3%) patients and 28/29 (97%) AS patients had sacroiliitis. Among the 114 patients with Takayasu arteritis a total of 8 (7%) patients had ankylosing spondylitis. Three of these patients were known to have Crohn’s disease. None of the remaining 5 patients had symptoms related to Crohn’s disease. The inter and intra-observer reliability of reading the sacroiliac radiograms was good. (kappa: inter-observer 0.89, 0.93, 0.89, 0.69 or 0.93, 0.69, 0.69, 0.47).

Conclusion: The frequency of ankylosing spondylitis is increased in Takayasu arteritis. The association seems to include Crohn’s disease in at least some of the patients. The HLA B27 status of these patients and other features of spondylarthropathy in these patients remains to be studied.

PP25. WITHDRAWN

PP26. FROM PATHOLOGY TO DIAGNOSIS: A SYMPTOM-FREE PATIENT WITH A RHEUMATOID NODULE

Tastekin Ebru, Birtane Murat, Kulinç Serdar, Çiftdemir Mert, Usta Ufuk and Tastekin Nurettin

Rheumatoid nodules are one of the most frequent extra-articular manifestations of rheumatoid arthritis (RA). Their appearance is usually employed by (B. Freundlich), Pfizer Inc. All other authors are currently employed by, or were recently employed by (J. Smolen, K. Pavelka, P. Nash, and P. Miranda have received consulting and/or speaking fees, honoraria, and/or research grants from Wyeth Pharmaceuticals, now part of Pfizer Inc, Collegeville, Pennsylvania, United States.

Effects of etanercept 50 mg QW plus methotrexate in subjects with moderately active RA at week 36

Efficacy measure % of Subjects (n=763)

- DAS28 LDAa 86
- DAS28 remissionb 67
- SDAI LDAa 85
- SDAI remissionc 25

aDAS28 <3.2; bDAS28 <2.6; cSDAI <11; SDAI <3.3.

Disclosure statement: J. Smolen, K. Pavelka, P. Nash, and P. Miranda have received consulting and/or speaking fees, honoraria, and/or research grants from Wyeth Pharmaceuticals, now part of Pfizer Inc. All other authors are currently employed by, or were recently employed by (B. Freundlich), Pfizer Inc.
Background: Atlantoaxial subluxation (AAS) may lead to impairment in the cervical spine of patients with rheumatoid arthritis (RA). It is usually associated with a dynamic instability that is most pronounced with the hyperflexion of the neck (1). In the present study, we aimed to assess the functional status of the motor and sensory pathways via motor and somatosensory evoked potentials in neutral position and hyperflexion of the neck.

Methods: Motor and somatosensory evoked potentials were performed at neutral position and hyperflexion of the neck in 20 healthy volunteers and 23 RA patients without clinical signs of AAS and neurological findings that suggest AAS. Motor evoked potentials (MEP) were recorded from bilateral abductor digiti minimi muscles with transcervical and cervical spinal magnetic stimulation. Somatosensory evoked potentials (SEP) were obtained from bilateral somatosensory cortex by stimulating the ulnar nerves at the wrist. Non-parametric tests were used in comparison of the dependent and independent variables (Wilcoxon Signed Rank test and Mann-Whitney U test respectively) in addition to the descriptive analysis of the data.

Results: The mean ages of the subjects were 52.65 (RA) and 58.55 (control) years and the disease duration was 17,61±9.23 months. Central motor conduction time (CMCT) in neutral position of the neck obtained by the MEP study was prolonged in RA group (0.50±0.56 msec) as compared with control group (6.59±1.29 msec) (p<0.01). The CMCT was insignificantly prolonged by hyperflexion of the neck in both patients with RA and healthy subjects as compared with the CMCT recorded in neutral position of the neck. The prolongation of the latency in hyperflexion of the neck was similar in both groups (0.50±0.56 msec and 0.51±0.61 msec, in control and RA groups respectively, p=0.734). No difference was found in latencies of the responses obtained by the SEP study either in hyperflexion of the neck or between groups (19.62±1.17 msec, p=0.134 and 19.81±3.27 msec, in control group and patients with RA respectively, p=0.058).

Conclusions: The present study demonstrated that the hyperflexion of the neck may be asymptomatic although even in the early stages of the disease. No electrophysiological difference was found in the hyperflexion of the neck.

Reference:

PP29. FOLLOW-UP RESULTS FROM OUR RHEUMATOID ARTHRITIS OUTPATIENT CLINIC
Tugba Yalcin1, Ajda Baš1, Deniz Dulgeroglu1 and Aytul Calcı1
Health Ministry Diskapi YB Education and Research Hospital, Ankara, Turkey

Background: The aims of this study were to evaluate retrospectively Ankylosing Spondylitis (AS) patients referring to our Rheumatic Diseases Follow-up Outpatient Clinic between 2003-2009, to determine their demographic and clinical characteristics and to compare laboratory, clinical, radiographic, and functional parameters at first presentation and last visit, demonstrating any changes in disease activity, functional status and radiographic grading.

Methods: Files of 313 patients with AS were investigated retrospectively, and their demographic and clinical characteristics and disease presentation and radiographic grading were determined. Laboratory investigations, erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) were determined. Disease activity, functional level, spinal mobility and radiographic grading were determined with Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Metrology Index (BASMII) and sacroiliitis grading using anteroposterior pelvis radiography, respectively. In addition, patients were queried regarding drug compliance, exercise habits, physiotherapy, and the prescription of orthosis, and a final radiological evaluation was made at the last visit.

Results: 53.7% of patients had peripheral joint involvement. HLA-B27 was found positive in 62.2% of patients. Presences of extra-articular involvement were observed in 11.1% and eye involvement was the most common extra-articular feature. Significant improvements were found in BASDAI, BASFI and BASMII levels at the last visit compared to baseline (p<0.001). Among laboratory parameters, significant improvement was observed only in CRP values (p<0.001) at the last visit compared to baseline. Progression was determined in sacroiliitis grading. There was a significant correlation between changes in BASMII and exercise habit (p<0.008).

Conclusions: Our results indicate that regular follow-up is important for suppressing disease activity and maintaining functional capacity in AS patients. Finding of progression for sacroiliitis grading may be through that radiographic damage get worsening despite current treatments. Patients should be stimulated for doing exercises to keep spinal mobility.

PP30. FOLLOW-UP RESULTS FROM OUR ANKYLOSING SPONDYLITIS OUTPATIENT CLINIC
Tugba Yalcı1, Ajda Baš1, Deniz Dulgeroglu1 and Aytul Calcı1
Health Ministry Diskapi YB Education and Research Hospital, Ankara, Turkey

Background: The aims of this study were to evaluate retrospectively Ankylosing Spondylitis (AS) patients referring to our Rheumatic Diseases Follow-up Outpatient Clinic between 2003-2009, to determine their demographic and clinical characteristics and to compare laboratory, clinical, radiographic, and functional parameters at first presentation and last visit, demonstrating any changes in disease activity, functional status and radiographic grading.

Methods: Files of 313 patients with AS were investigated retrospectively, and their demographic and clinical characteristics and disease presentation and radiographic grading were determined. Laboratory investigations, erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) were determined. Disease activity, functional level, spinal mobility and radiographic grading were determined with Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Metrology Index (BASMII) and sacroiliitis grading using anteroposterior pelvis radiography, respectively. In addition, patients were queried regarding drug compliance, exercise habits, physiotherapy, and the prescription of orthosis, and a final radiological evaluation was made at the last visit.

Results: 53.7% of patients had peripheral joint involvement. HLA-B27 was found positive in 62.2% of patients. Presences of extra-articular involvement were observed in 11.1% and eye involvement was the most common extra-articular feature. Significant improvements were found in BASDAI, BASFI and BASMII levels at the last visit compared to baseline (p<0.001). Among laboratory parameters, significant improvement was observed only in CRP values (p<0.001) at the last visit compared to baseline. Progression was determined in sacroiliitis grading. There was a significant correlation between changes in BASMII and exercise habit (p<0.008).

Conclusions: Our results indicate that regular follow-up is important for suppressing disease activity and maintaining functional capacity in AS patients. Finding of progression for sacroiliitis grading may be through that radiographic damage get worsening despite current treatments. Patients should be stimulated for doing exercises to keep spinal mobility.

PP31. EFFECTIVENESS AND SAFETY OF TOCILIZUMAB IN PATIENTS WITH RHEUMATOID ARTHRITIS IN DAILY CLINICAL PRACTICE (THE REACTION STUDY AT 52 WEEKS)
Tsutomu Takeuchi1, Yoshiya Tanaka2, Kouichi Arman3, Daisuke Hashi4, Masao Nawata5, Hayato Nagasawa6, Eri Sato4, Kazyuyoshi Saito7, Yuko Kaneko1, Shinusuke Fukuyo1, Takahiko Kurasawa1, Kentaro Hamami4, Hideto Kameda1 and Hisashi Yamanaka1
1Division of Rheumatology, Department of Internal Medicine, School of Medicine, Keio University, Tokyo, Japan; 2Department of Rheumatology, School of Medicine, University of Occupational & Environmental Health, Kitakyushu, Japan; 3Division of Rheumatology and Clinical Immunology, Department of Internal Medicine, Saitama Medical Center, Saitama Medical University, Saitama, Japan; 4Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan

Background: Anti-IL-6 receptor monoclonal antibody, tocilizumab (TCZ), has been demonstrated to be a powerful agent for the treatment of rheumatoid arthritis (RA) in clinical trials. However, it is not fully understood in clinical practice.

Methods: We evaluated the effectiveness and safety of TCZ in three major rheumatology centers in Japan.
Results: Total of 255 RA patients was enrolled and received 8 mg/kg every four weeks of TCZ treatment up to 52 weeks in the REACTION study. The mean ± SD of clinical parameters at baseline were as indicated below, age; 59.1 ± 13.3 years, duration of RA; 12.4 ± 11.1 years, mTSS; 140 ± 101, prior biologics user; 62.8%, concomitant methotrexate user; 55.6%, and concomitant corticosteroid user; 67.0%.

At week 52, clinical remission was achieved in 42% of patients, and 55% of the patients reached low disease activity criteria with TCZ treatment. The estimated yearly progression of mTSS was also significantly improved from 26.0 at baseline to 1.1 at week 52 (p = 0.0001). Cumulative probability analysis showed that progression of joint damage was inhibited in 61.7% of patients. Based on the HAQ scores at baseline, extremely severe functional disability was evident, with a mean score of 1.56. After TCZ, the HAQ score decreased to 1.29. Defined as HAQ score ≤ 0.5, functional remission was achieved by 26.4% of patients. In an multiple regression analysis, baseline HAQ score before TCZ treatment was an important factor that influences clinical, structural and functional remission at 52 weeks with TCZ.

Conclusion: Tocilizumab exhibited excellent effectiveness in established RA patients in daily clinical setting. This study provided valuable information in the management of RA with tocilizumab in the real world.

THEMATIC STREAM : SYSTEMIC AUTOIMMUNE DISEASES (PP32-PP58)

PP32. TRACE ELEMENT LEVELS IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER AS COMPARED TO HEALTHY CONTROLS
Kadir Yıldırım1, Hulya Uzkeser1, Abdullah Uyanık2, Salihı Karatay1 and Ahmet Kızıltunc3
1Department of Physical Medicine and Rehabilitation, Atatürk University, Medical Faculty, Erzurum, Turkey, 2Department of Nephrology, Atatürk University, Medical Faculty, Erzurum, Turkey, 3Department of Biochemistry Atatürk University, Medical Faculty, Erzurum, Turkey

Background: The aim of this study was to determine the alterations in serum copper (Cu), zinc (Zn) and selenium (Se) levels in Familial Mediterranean Fever (FMF) patients as compared to healthy controls. Methods: This study was conducted on 33 patients with FMF during an attack-free period and 30 healthy volunteers. Serum levels of Cu, Zn and Se were assessed by the atomic absorption spectrophotometry method.

Results: Serum Cu and Zn levels were similar between the FMF patient and healthy control groups (p=0.05). However, Se levels in the FMF attacks-free group were significantly higher than in the control groups (p = 0.05).

Conclusions: Our study shows that serum trace elements are variable in attack free patients with FMF. Serum Se concentrations may at least in part contribute to the subclinical inflammation in FMF patients during attack-free periods. However, further studies are necessary to support this result.

PP33. RELATIONSHIP BETWEEN SERUM INTERLEUKIN-1β LEVELS AND ACUTE-PHASE RESPONSE PROTEINS IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER
Kadir Yıldırım1, Hulya Uzkeser1, Mustafa Keles2, Selahı Karatay1, Ahmet Kızıltunc3 and Muhammet Dursun Kaya4
1Department of Physical Medicine and Rehabilitation, Atatürk University, Medical Faculty, Erzurum, Turkey, 2Department of Nephrology, Atatürk University, Medical Faculty, Erzurum, Turkey, 3Department of Biochemistry, Atatürk University, Medical Faculty, Erzurum, Turkey, 4Vocational College of Erzurum, Atatürk University, Erzurum, Turkey

Background: The aim of this study was to examine about alterations in serum interleukin-1β (IL-1β) levels and to determine whether the relationship between IL-1β and acute phase response proteins in familial Mediterranean fever (FMF) patients during attack-free period.

Methods: The serum levels of IL-1β, as an indicator of cytokines status, and the acute phase response proteins, C-reactive protein (CRP), erythrocyte sedimentation rate (ESR) and fibrinogen levels were evaluated in 35 attack-free patients with FMF (male/female: 21/14) and 25 healthy volunteers as a control group (male/female: 16/9).

Results: Serum IL-1β levels were higher statistically significant in patients with FMF than control subjects (p=0.018). There was no statistically significant difference in the serum levels of ESR, CRP and fibrinogen between two groups (p>0.05). The significant correlation between IL-1β and CRP (r = 0.513, p = 0.002) was observed in FMF group. In addition serum CRP levels correlated with ESR (r = 0.514; p = 0.002) and fibrinogen values (r = 0.475; p = 0.004), respectively.

Conclusion: In conclusion, our results confirm the presence of increased IL-1β levels in FMF patients during attack-free period. Serum IL-1β values seem correlate with CRP levels. The elevation of IL-1β levels may be important in monitoring subclinical inflammation of attack free period in FMF patients.

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

PP34. WITHDRAWN

PP35. VENOUS SEVERITY ASSESSMENT IN BEHÇET’S SYNDROME
Çakmak Osman Serdal1, Seyahi Emire1, Kantarcı Fatih2, Yejiılova Ayla1, Tüzün Hasan1 and Yazıcı Hasan1
1Behçet’s Syndrome Research Center, cerrahpasa Medical Faculty, University of Istanbul, Turkey, 2Department of Radiology, cerrahpasa Medical Faculty, University of Istanbul, Turkey, 3Department of Cardiovascular Surgery, cerrahpasa Medical Faculty, University of Istanbul, Turkey

Objectives: Lower extremity thrombosis (LEVT) is the most common type of vascular involvement in Behçet’s syndrome (BS). Little data is available on its clinical and ultrasonographic (USG) evaluation. We assessed clinical characteristics and severity scores among BS patients with LEVT and controls.

Patients and Methods: We studied 95 (88 M / 7 F) BS patients with LEVT and 69 (69 M / 10 F) BS patients without LEVT. Also 56 (52 M / 4 F) non-BS patients with LEVT who were followed by the vascular surgery outpatient clinic were included. Venous severity was assessed using venous clinical severity scoring (VCSS) and clinical etiologic anatomical pathophysiological (CEAP) classification used frequently by vascular surgeons to determine the severity of chronic venous insufficiency (1). Claudication was assessed by Rose questionnaire (2). Also venous Doppler USG was done to all patients with LEVT and its findings were compared retrospectively to the first available Doppler USG in patient’s charts.

Results: As shown in Table, BS patients with LEVT had significantly more severe disease in every aspect compared to non-BS patients with LEVT. Popliteal and femoral veins were the most commonly involved veins among both BS and non-BS patients with LEVT. The mean number of thrombosed veins was significantly higher among BS patients (4.5 ± 2.6) than non-BS patients (3.3 ± 2.3) (P<0.004). Among BS patients with LEVT, ulceration was observed in 17 of, while claudication in 36%. When initial and final Doppler USG images were compared, it was seen that thrombotic involvement was mostly unilateral at the beginning while it became mostly bilateral by the end of the follow-up. Similarly the number of veins involved increased during the follow-up.

Conclusions: Venous thrombosis due to BS run a more severe disease course compared to those due to non-BS causes. VCSS and CEAP seem to be useful assessment tools in BS.

Reference

Table. Clinical characteristics and venous severity variables in patients with BS and controls.

<table>
<thead>
<tr>
<th>Variable</th>
<th>BS patients with LEVT</th>
<th>BS patients without LEVT</th>
<th>Non-BS patients with LEVT</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age ± SD, years</td>
<td>38.6 ± 10.2</td>
<td>36.8 ± 10.0</td>
<td>42.8 ± 12.8</td>
<td>0.008</td>
</tr>
<tr>
<td>Intermittent claudication, n (%)</td>
<td>34 (96)</td>
<td>1 (2)</td>
<td>7 (166)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Pain, n (%)</td>
<td>70 (74)</td>
<td>26 (37)</td>
<td>34 (61)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Varicose veins, n (%)</td>
<td>64 (68)</td>
<td>0 (0)</td>
<td>26 (46)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Venous edema, n (%)</td>
<td>56 (66)</td>
<td>1 (1)</td>
<td>36 (60)</td>
<td>0.001</td>
</tr>
<tr>
<td>Skin pigmentation, n (%)</td>
<td>54 (57)</td>
<td>1 (1)</td>
<td>9 (16)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Inflammation, n (%)</td>
<td>21 (22)</td>
<td>0 (0)</td>
<td>4 (7)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Venous ulcer, n (%)</td>
<td>15 (17)</td>
<td>0 (0)</td>
<td>1 (2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Venous clinical severity score, mean ± SD</td>
<td>6.4 ± 5.0</td>
<td>0.5 ± 0.8</td>
<td>4.5 ± 3.3</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

LEVT: Lower extremity deep vein thrombosis