POSTER PRESENTATIONS (PP01-PP86)

THEMATIC STREAM : INFLAMMATORY ARTHRITIS (PP01-PP31)

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

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**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 inflammation 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. OCHRONOTIC ARTHROPATHY MIMICKING ANKYLOSING SPONDYLITIS**

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**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 spondylarthropathy. 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. CLINICAL USEFULNESS OF MULTIDETECTOR COMPUTED TOMOGRAPHY OF SACROILIAC JOINT IN THE EVALUATION OF NON-ADVANCED ANKYLOSING SPONDYLITIS**

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**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. A 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, joint involvement, enthesisopathy, functional limitations and BASDAI were analyzed.

Results: More patients satisfied modified NY criteria by MDCT than by 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 radiograph (80.3% vs. 73.9%), and yielded in higher grade than plain radiograph (33.3%; 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
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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 1085 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 45.5 ± 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 in 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 severity 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)
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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 the disease is 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 not 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 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 sacroiliitis 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 indometasine 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. Lumbar schober was 3 cm and chest expansion was 4 cm. Direct radiography and computerised tomography demonstrated bilateral sacroiliitis. 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 244.9 mg/dl (0-11.9). MEFV mutation test was homozogous for M694V. He was started a treatment with 5 mg/kg/g 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 infusin stopped and etanercept was commenced in a few weeks. The patients also responded well to etanercept and Fabrie 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 was put under etanercept 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 10000 patients worldwide [5]. Colchicine is widely used for the treatment 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 spondyloarthritis (7). Our patient also has similar findings and may be considered to have FMF with some overlap of spondyloarthritis features.

The role of anti-TNF agents in FMF has to be clarified. In a report, it was hypothesized that maresenin/psyrin on neutrophils can adequately regulate the activity of caspase-1, which increases the production of IL-1 beta. The production of IL-1 beta leads to the production of proinflammatory cytokines like TNF-alpha. Mutations in the MEFV gene may impair the regulatory function of maresenin/psyrin resulting in febrile attacks through excessive production of inflammatory cytokines [1]. The presence of amyloidosis determines the prognosis of FMF patients. Regression 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
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Background: To critically evaluate the evidence regarding complementary and alternative medicine (CAM) taken orally or applied topically (excluding α-3 polysaturated fatty acid supplementation i.e. fish oil) used as treatment of rheumatoid arthritis.

Methods: Randomised trials of rheumatoid arthritis using CAMs, in comparison with other treatments or placebo, published in English up to May 2009, were eligible for inclusion. They were identified using systematic searches of bibliographic databases and manual searching of reference lists. Information was extracted on outcomes, and statistical significance, in comparison with alternative treatments, and side effects were reported. The methodological quality of the primary studies was determined using the Jadad scoring system.

Results: 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

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Background: In rheumatic diseases although biologics are effective, in case of ineffectiveness and/or adverse events, not seen rarely, switching between those drugs or even drugs from different classes is 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 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 measured. Non-biological therapy data were also gathered in order to monitor disease activity and adverse events by rheumatologists. As a result of this close observation, switching is a common treatment strategy.

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 PaA, 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 on use 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 was initial non effectiveness (50.7%), adverse events (25.7%), and secondary effect lose (16.8%). 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 was initial non effectiveness (41.1%), adverse events (29.7%) and secondary effect lose (17.7%). Most frequent adverse events was skin reactions, nonspecific infections, ocular disorders, malignancy, hepatobiliary changes.

Conclusion: In Turkey, AS patients constitute a larger population who use biologics. Rheumatoid 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

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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 sedimention rate and C reactive protein (CRP) levels measured. Motor and sensory nerve conduction tests for the median, ulnar, 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 37.05±8.1 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 35.8±7.8. There was no statistically significant difference between the groups in terms of age, sex, drug
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=0.49) 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-α.

PP11. IS THERE AN ASSOCIATION BETWEEN SERUM 25-HYDROXY VITAMIN D CONCENTRATIONS AND DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS?
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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 D(25(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 Electrolyse 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 healthy controls (p<0.01) and were associated with higher levels of parathormone. 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
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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 anti-inflammatory 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(-) RA patients. There was positive correlation between anti-CCP antibody levels and synovial MDA and MPO levels (r=0.448, 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
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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 anetading onset of symptoms by years by co-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, Upppsala, 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 isotype predicted RA significantly in conditional logistic regression models (OR=98.1, 95% CI (13.3-723.8) and OR=13.3, 95% CI (4.9-36.0), respectively). The mean antidenting time was longest for IgA isotype, 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 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
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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 23.2% 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.
and/or foot. The mean modified Sharp score (MSS) of the patients was 32.1±57.6. The MSS were higher in patients with the disease onset age <16 years. The MSS were lower in rheumatoid factor-positive patients. 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
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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, with higher scores in females. The HAQ-scores were higher in the presence of ulnar deviation, Z-deformity, swan-neck, buttonhole deformsities, and elbow, knee and foot deformities. There were no significant differences between the HAQ-scores according to RF positivity; however, 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, 1.4±3.7 and 1.1±3.4, 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. 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
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Background: Ankylosing spondylitis is a chronic autoimmune inflammatory disease. There are many different factors for prediction of the course of the disease. To asses data out put 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 alpha 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) years and the age of the patients was 18 till 41 (average 32.7). BASDAI levels 5.1±1.62, CRP levels 10.8±4.6, m-SASSS 37.5±14.9, TNF alpha levels 3.7±1.1. Results of comparison of our data CRP vs BASDAI (p=0.044), CRP vs TNF alpha (p=0.0004) were noted. CRP vs TNF alpha (p=0.02), m-SASSS vs CRP (p=0.04), m-SASSS vs TNF alpha (p=0.02).

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

PP17. WITHDRAWN

PP18. METABOLIC SYNDROME IN PATIENTS WITH ANKYLOSING SPONDYLITIS
Ibrahim Batmaz1, Mehmet Karakaş1, Selma Yazıcı1, Remzi Çevik1, Kemal Nas1, Ayşeüç Jale Saraç2 and Zuhal Atilan2
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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 no 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
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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 criteria. Control group consist of the patients with epicondylitis, bursitis, tendinitis on the upper extremities who has no previous knee pain history. Secondary RLS reasons were accepted as excluding criteria. In each group 100 patients were included. All patients were questioned about International Restless Legs Syndrome Study Group (RLSSQ) RLS basic diagnosis criterias, 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...
PP20. IMPACT OF ANKYLOSING SPONDYLITIS ON PRODUCTIVITY, SICK LEAVE AND PRESENTEEISM IN TURKISH PEOPLE

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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 Rheumatologic Rehabilitation Unit of the Department 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 BASDAI (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 OSTEOCLASTGENESIS IN PSORIATIC ARTHRITIS

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Introduction: We evaluated Th17 group cytokine profile which has 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 (BM, 11, age:49±2.30) and 19 healthy controls (BM, 11F, age:47.3±4.8) 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<0.005). In addition, DKK-1 levels were significantly correlated 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 Uludag2, Nurettin İrem Önkek1, Sibel Süzen1, Hasan Battal1 and Şafak Karamehmetoglu1
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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 diagnose as NIP and 23 patients (11 men, 12 women) as IP. The number of diagnoses was as follows: Spondylitis (51), Peripheral joint osteoarthrits (19), soft tissue disorders (11), disc herniations (10), mixed degenerative joint disorders (13), spondyloarthopathies (19), and rheumatoid arthritis (4). The mean age of NIP and IP patients is 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

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Background: Angiogenesis is an important process in the pathogenesis of chronic inflammatory disorder. The vasculature is also involved in the pathogenesis of spondyloarthopathies. Increased vasculature is a prominent feature of ankylosing spondylitis (AS) synovitis. Saccorrhaphy and enthesitis are characterized by fibrous lesions and bone formation, which require active participation of the blood vessels. 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 severity.

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 = 0.756, 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

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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 negative 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. 36 gave an affirmative answer to at least one of the questions. 29 of these 36 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 them 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 variability of reading the sacroiliac radiograms was good, (kappa: inter-observer 0.89, 0.89, 0.89 and intra-observer 0.93, 0.89, 0.71)

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, Künlc Serdar, Çiftdemir Met, Usta Uluk and Tastekin Nurettin

Rheumatoid nodules are one of the most frequent extra-articular manifestations of rheumatoid arthritis (RA). Their appearance is usually associated with high titers of serum rheumatoid factor (RF). Nodules are more frequently located on elbows and extensor bony surfaces of the joints or pressure points. Here, we aimed to present a case with pathologically verified rheumatoid nodule in an uncommon localisation, having no clear clinical symptoms of RA.

Case: A 39 year old female patient had applied with pain and localised swelling on the dorsal side of the left foot, between 2, metatarsal and 3, metatarsal heads, lasting for more than 1 year. The diameter of the localised swelling was 0.3 cm. The ultrasonographic evaluation by the order of an orthopaedist, revealed a mass resembling Morton’s neuroma and further MRI showed a cystic lesion. Mass was excised by the orthopedic surgeon and sent for pathological evaluation. Radiographs of affected site showed no sign of arthritis while the histopathologic evaluation revealed some findings compatible with rheumatoid nodule. The tissue was dirty yellow-white in color, macroscopically. Microscopical evaluation revealed, synovial epithelial hyperplasia, papillary growth, plasma cell-rich chronic inflammation, edema, vascularization. In the laboratory evaluation, serum RF was found to be positive with 45.5 IU/ml, anti-ccp and ANA were positive (ANA in 1/100 dilution). ESR profile was negative. A careful and deep symptom inquiry revealed obscure morning stiffness lasting for 30 minutes in both hands with no evident arthritis findings. Conclusion: Patients can have rheumatoid nodules at some uncommon sites, such as the dorsum of foot and without apparent clinical symptomatology of arthritis. This should be a clue and warn the clinician for a possible emerging arthritic syndrome sometimes supported by positive laboratory findings.

PP27. ACHIEVEMENT OF LOW DISEASE ACTIVITY OR REMISSION WITH ETANERCEPT-METHOTREXATE THERAPY IN SUBJECTS WITH MODERATELY ACTIVE RHEUMATOID ARTHRITIS: PRELIMINARY RESULTS FROM THE PRESERVE TRIAL

Josef S. Smolen1, Bruce Freundlich2, Karel Pavelka3, Peter Nash4, Pedro Miranda5, Constance Hammond6, Bonnie Vahos6, Ronald Pedersen2 and Andrew S. Koenig6

1Division of Rheumatology, Medical University of Vienna, and Hietzing Hospital, Vienna, Austria, 2Department of Rheumatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, 3Institute of Rheumatology and Clinic of Rheumatology, Charles University, Prague, Czech Republic, 4Department of Medicine, University of Queensland, Brisbane, Queensland, Australia, 5Department of Rheumatology, Universidad de Chile and Hospital San Juan de Dios, Santiago, Chile, 6Department of Specialty Care, Pfizer Inc, Collegeville, Pennsylvania, United States

Background: Recent recommendations have established clinical remission ideally or low disease activity (LDA) as therapeutic targets in all patients with rheumatoid arthritis (RA). Controlled studies of biologic agents have primarily assessed treatment effects in patients with severe RA; patients with moderate disease activity, who constitute a larger group, have received far less attention. In Period 1 of the PRESERVE trial, the proportion of subjects with moderately active RA achieving LDA or remission were evaluated after treatment with etanercept 50 mg once weekly (QW) plus methotrexate for 36 weeks.

Methods: Subjects with DAS28 >3.2 and ≤5.1 despite stable doses of oral methotrexate received open-label etanercept 50 mg QW plus methotrexate (screening dose permitted to be titrated up to 25 mg/week through week 28) for 36 weeks.

Results: 834 subjects received treatment and were analyzed. Subjects were mostly female (83%), Caucasian (74%), RF positive (54%), ESR ≤35 (91.6%), and DAS28 ≥5.1 despite stable doses of oral methotrexate (96%). Median age was 51 years and disease duration of 9 years. Mean baseline DAS28 was 4.4; SD19, 1.8; ESR, 22.7 mm/hr; and CRP, 13.2 mg/l. Efficacy results from Period 1 are shown in the table. The most commonly reported adverse events (AEs) were headache (6.1%), nasopharyngitis (5.4%), and upper respiratory tract infection (4.4%). Twenty-two subjects (2.6%) discontinued due to AEs. Conclusions: Substantial proportions of subjects with moderately active RA who received etanercept 50 mg QW plus methotrexate for 36 weeks achieved LDA (85%–86%), DAS28 remission (67%), or SDAI remission (25%). Therefore, these ambitious goals can be achieved realistically in a high percentage of patients with moderate disease activity.

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.

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

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<th>Efficacy measure % of Subjects (n=763)</th>
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<tr>
<td>DAS28 LDAa 85</td>
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<tr>
<td>DAS28 remission® 67</td>
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<td>DAS28 LDAc 85</td>
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<td>SDAI remission® 25</td>
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aDAS28 = <3.2; bDAS28 = <2.6; cSDAI = <11; dSDAI = <3.3.
PP28. MOTOR EVOKED POTENTIALS MAY BE AFFECTED IN PATIENTS WITH RHEUMATOID ARTHRITIS WITHOUT ATLANTOAXIAL SUBLUXATION

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Background: Atlantoaxial subluxation (AAS) may lead to impairment of neurological functions in 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 transcranial 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 RA patients had 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 (5.41±0.043 ms) as compared to the control group (6.39±1.28 ms). 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 ms and 0.51±0.61 ms, 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 ms, p=0.134 and 19.81±3.27 ms, in control group and patients with RA respectively, p=0.058).

Conclusion: The presence of electrophysiological impairment compromising the central motor pathways in RA patients without clinical involvement of atlantoaxial joint and cervical spine suggests that the atlantoaxial joint may be asymptomatically affected even in the early stages of the disease. No electrophysiological difference was found with the hyperflexion of the neck.

Reference

PP29. FOLLOW-UP RESULTS FROM OUR RHEUMATOID ARTHRITIS OUTPATIENT CLINIC

Tugba Yalçın1, Ayşen Bal1, Deniz Dulgeroglu1 and Aytul Cakici1
1 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 first and last visit were recorded. In laboratory investigations, erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) were determined. Disease activity, functional level and radiographic grading were determined with Disease Activity Score (DAS-28), Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Metrology Index (BASMl) and sacroiliitis grading using anteroposterior pelvis radiography, respectively. In addition, patients were queried regarding drug compliance, exercise habits, physiotherapy, 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 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 Yalçın1, Ayşen Bal1, Deniz Dulgeroglu1 and Aytul Cakici1
1 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.

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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 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)

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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
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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
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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: 25/10) 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.