Objectives We proposed to assess the incidence of varicocele in AS evaluated by physical examination and colour doppler ultrasonography (CDU). Sperm parameters of these patients were also investigated and compared with controls.

Methods Thirteen untreated male patients (ages 18–40) with AS and age matched healthy 12 male subjects (ages 18–39) included in the study. Testicular veins in both groups were studied with CDU and semen samples were analysed.

Results Eight of the patients evaluated with physical examination had varicoceles (all grade II, 5 left side, 3 bilateral). Only two subjects in control group had grade II varicocele on the left side and both were asymptomatic. Colour doppler evaluation of the testicular vessels in patients with AS revealed grade II varicocele (6 left side, 3 bilateral) in 9 of the patients (69,2%) examined. Semen parameters were within normal limits in 7 patients, and there were altered sperm count and quality in 6 patients.

Conclusion The high incidence of varicocele in patients with AS may be explained by chronic inflammatory low-back pain that brings about reduced extensor muscle strength that causes compensatory increase in intra-abdominal pressure. This may cause a mechanical overload to the testicular vessels. Secondly, vasodilator effect of nitric oxide that was activated by inflammatory process.

SAT0022 SUCCESSFUL TREATMENT OF PATIENTS WITH SEVERE UNDIFFERENTIATED SPONDYLOARTHRITIS WITH THE ANTI-TNFA ANTIBODY INFlixIMAB

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Background Anti-TNF α therapy has been successfully used in patients with active ankylosing spondylitis (AS; A&R June 2000). Whether this treatment is also efficacious in patients with undifferentiated spondyloarthropathies (uSpA), the second most frequent SpA subset, has not been assessed to date.

Objectives To test the efficacy of the monoclonal anti-TNF α antibody infliximab in patients with severe uSpA.

Methods Six uSpA patients (4 male, 2 female) with a median age of 36 years (range 19–49) were diagnosed according to the 1991 ESSG criteria. The median disease duration was 6.2 years (1.2–35 years). They had been refractory to other therapies including NSAIDs, steroids and sulfasalazine and were treated with infliximab in an open observational way at week 0, 2 and 6 and followed up for 12 weeks. Three patients received infliximab in a dosage of 3 mg/kg and the other three received 5 mg/kg. The leading clinical symptoms were peripheral arthritis (n = 6), inflammatory back pain (n = 6) and enthesitis of the heels (n = 4). HLA B27 was positive in 5/6 patients. No patient had sacroiliitis > grade II unilateral. The Bath AS disease activity index (BASDAI), the functional index (BASFI), pain on a visual analogue scale (VAS), and the Bath AS Metrology Index (BASMI) were assessed before, during and after therapy. Quality of life was measured using the Short Form (SF) 36 instrument.

Results All patients improved after 1–3 days. There was a more substantial response in the group treated with 5 mg/kg infliximab than in the 3 mg/kg group. The range of the BASDAI in the 5 mg/kg group was 7.0–7.6 (3 mg/kg-group: 7.7–8.6) before and 6 weeks after the third infusion 0.7–2.7 (3 mg/kg-group: 1.7–7.8). The functional index also improved in all but one patient:

the BASFI values had decreased from 7.0–7.6 in the 5 mg/kg group (3 mg/kg-group: 6.7–8.5) to 0.8–2.7 (3 mg/kg-group: 0.8–8.4). Pain on a VAS improved in the 5 mg/kg group from 7.1–7.7 (3 mg/kg-group: 5.1–9.0) to 0.8–2.6 (3 mg/kg-group: 1.2–8.1). Joints, entheses and spinal symptoms improved equally. CRP levels dropped from <6.0–120 mg/l before therapy to <6.0–15.6 mg/l at week 12. No side effects occurred. There was improvement in all 8 SF-36 concepts assessed at baseline and at week 12; the improvement was significant for the concepts bodily pain and vitality.

Conclusion These data suggest that anti-TNF α therapy has significant short-term efficacy in severe uSpA. Infusions with 5 mg/kg infliximab might be more effective than 3 mg/kg in SpA patients. Since it is known that 30–50% of uSpA patients develop AS over time it seems worthwhile to study whether this can be prevented by anti-TNF α therapy.

SAT0023 HLA GENE POLYMORPHISM IN PSORIATIC ARTHRITIS (PSA)

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Background Psoriasis is known to be associated with HLA component (HLA-B*13, B*17, Cw*06 and DRB1*07). However few data exist on HLA association with PsA especially using highly sensitive HLA-Cw, DR and DQ typing methods.

Objectives The aim of this work was to study the distribution of HLA alleles in PsA patients in comparison with unrelated controls from the same geographic area.

Methods 69 patients (35 males, 34 females) were included according to modified Avila criteria. A first control group was composed of 328 healthy individuals (random controls: RC). Because alleles at the B and Cw loci are in strong linkage disequilibrium, 60 control individuals matched with patients for HLA-B alleles were selected (matched controls: MC). All the individuals were typed for HLA-A and B by microlymphocytotoxicity and for HLA-Cw, DRB1 and DQB1 by PCR-SSP after geno-mic DNA extraction of peripheral blood nucleated cells. The significance of differences in phenotype frequencies was determined by Fischer's exact test.

Results No significant difference in the HLA-B allele distribution exists between patients and MC. Disease expression of the PsA patients was as follows: skin psoriasis in 100%, axial PsA in 37.7%, asymmetric oligoarthritis in 15.9%, symmetric polyarthritis in 34.8% and asymmetric polyarthritis in 46.4% of the patients. HLA-A*01 (p = 0.0011), B*27 (p = 0.03), B*38 (p = 0.003) and B*57 (p = 0.03) were significantly increased, whereas HLA-A*11 (p = 0.017) and B*18 (p = 0.0019) were significantly decreased in PsA patients compared to RC. 34.4% of the PsA patients carried Cw*0602 compared to 11% in RC (p = 0.003). No difference of DRB1 and DQB1 allele frequencies could be evidenced. When PsA patients and MC were compared no difference of HLA class I and class II allele frequencies was shown except for a significant increase of Cw*0102 in patients (p = 0.0025). Early onset of PsA (as well as psoriasis) was significantly associated with Cw*0602 (p = 0.01) and DRB1*07 (p = 0.03). No association between spondylitis (axial PsA) with and B*27 was observed. Finally, although the sample size is small (10 patients), severe forms of disease were significantly associated with HLA-B*38 (p = 0.0035).

Conclusion Taken together, these data show that alleles at class I loci are associated with the disease, although it is difficult to assess their specificity to PsA genetic susceptibility. No particular role of the HLA class II region could be demonstrated.

SAT0024 ENTHESITIS AND DACTYLITIS AS THE BEGINNING STAGE OF PSORIATIC ARTHRITIS

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Background Enthesitis and dactylitis are characteristic features of psoriatic arthritis and the others spondyloarthropathies. Both may appear from the onset of the disease.

Objectives To analyze the clinical characteristic of a population of patients with psoriatic arthritis who presented enthesitis and dactylitis as their only clinical symptoms at the onset of the disease.

Methods We have studied a group of 204 patients diagnosed with psoriatic arthritis following the Moll and Wright criteria, selecting only those who expressed either Enthesitis or dactylitis as initial symptoms of the disease.

Results Twenty-eight patients (14%) proved to have Enthesitis or dactylitis 21 enthesitis, 7 dactylitis and 1 Enthesitis and dactylitis as disease onset, and seventeen were men (60.7%). The mean age of psoriatic arthritis onset was 38 years (range: 17–58). The mean time from Enthesitis and dactylitis onset and the Moll and Wright criteria was 6 months (range: 1–180). Enthesitis was most frequent in achilles tendon (81%) and the plantar fascia (72.7%). Twenty patients (71.4%) presented arthritis involving peripheral joints, 4 (14.3%) presented and axial skeleton distribution, and the remaining (14.3%) showed a mixed peripheral and axial distribution.

Conclusion Enthesitis and dactylitis are initial clinical features of psoriatic arthritis, even though the majority of the patients with these symptoms at the beginning of the disease evolve towards a peripheral arthritis pattern.

SAT0025 EVOLUTION OF PSORIATIC ARTHRITIS WITH DISTAL INTERPHALANGEAL JOINTS INVOLVEMENT AT ONSET

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Background Distal interphalangeal joints (DIP) arthritis described by Moll and Wright as a psoriatic arthritis (Psa) pattern is now considered an evolutionary step towards other classification patterns.

Objectives To study the clinical and radiological evolution of a group of patients with arthritis limited to the DIP as onset of Psa.

Methods We have studied the clinical and radiological evolution of 204 patients diagnosed with Psa (Moll and Wright criteria) during the first year of the disease selecting those patients whose initial clinical features were exclusively arthritis of the DIP. The radiological findings after one-year follow-up were classified into stages according to Steinbrocker's criteria.

Results Arthritis of DIP as onset of the disease was found in 19/204 (9.3%) of the patients. The mean age at onset was 49 years (range: 34–64). Psoriasis before arthritis onset was present in 8/19 (42.1%) and in 9/19 (47.3%) the onset of arthritis and psoriasis was simultaneous. Onychodystrophy (pitting) was present in 7/19 (36.8%). After one-years 9/19 (47.3%) patients continued with arthritis as the only manifestations of Psa, 8/19 (42.1%) patients evolved toward other arthritis patterns (5 asymmetrical oligoarthritis and 3 symmetrical polyarthritis). The joints more commonly involved along with the DIP were metacarpophalangeal (75%) and proximal interphalangeal (62.5%). 2/19 patients (10.4%) did not show DIP arthritis after one year. At the end of the one-year study 9/19 (47.3%) of the patients were classified into III stage radiological criteria, 2/19 (10.4%) were at the stage I and in the remaining patients radiological was considered as normal.

Conclusion Almost half of the patients with DIP arthritis as Psa onset evolve within one year towards others arthritis patterns. Half of the patients revealed an aggressive radiological progression during the first year of the disease.

SAT0026 IS RADIOGRAPHIC EXAMINATION SUFFICIENT FOR DETECTION OF NON TRAUMATIC SPINAL FRACTURES IN ANKYLOSING SPONDYLITIS: COMPARISON OF RADIOGRAPHIC AND MRI FINDINGS

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Background

Objectives To compare plain radiographic and MRI findings in evaluation of non traumatic spinal fractures in patients with ankylosing spondylitis (AS), and to find correlation between spinal fractures and disease activity, age of patients, and disease duration.

Methods 21 males and 2 females with AS, mean aged 49.8, were studied. Lateral radiographs and MRI examinations of lumbar, thoracic and cervical spine were performed in all patients. To detect vertebral body fractures with radiographs, the anterior, posterior and central heights of each vertebral body were measured. The ratio of each height to that of the two adjacent vertebrae, the ratio of the anterior height to the posterior height and of the central height to the posterior height were calculated. The subjects were considered to have fracture if any of these ratios was less than 0.85 for lumbar spine and less than 0.8 for thoracic and cervical spine. We assessed also the following indexes of disease activity: BASFI, BASDAI, BASG-t, BASG-6, BSMI.

Results Total 25 fractures were found with the radiographic method: 7 fractures in lumbar spine, 15 in thoracic and 3 in cervical. The MRI examinations revealed total 51 fractures: 24 fractures in lumbar spine, 18 in thoracic and 9 in cervical. Out of 25 fractures detected by X-ray examination, MRI confirmed the site of fracture only in 10 (40%). Age of patients and disease duration correlated positively with total number of fractures, number of fractures in lumbar spine and number of fractures in thoracic detected by MRI. There was no such correlation for fractures detected by X-ray. Assessing indexes of disease activity we found positive correlation between BASFI, BASDAI, BASMI and total number of fractures and number of fractures in lumbar spine detected by MRI.