Objectives Objective of this study was to present characteristics of Ankylosing spondylitis (AS), not initiated as genuine (i.e. initiating as a reactive arthritis-ReA).

Methods The study is a retrospective 20-year analysis of 144 patients treated for ReA.

Results

- Spondylitis occurred after either urinary or intestinal infection in 87%; in 53% following mono- or oligoarthritis.
- Syndesmophytes of one or more segments were massive, nonmarginal; sacroiliitis-asymmetrical.
- After the period of 10,6 years, in 25% of diseased, the total spinal column was involved by AS type, with symmetrical sacroiliitis.
- Some discs presented with calcification resulting from discitis.
- Some i.v. spaces were reduced including some vertebral bodies which underwent a cuneiform transformation.
- Postural transformation was less frequent, lumbar lordosis was recorded in 83% with lower frequency of TH kyphosis than in AS.
- There were cases of interspinal arthrosis and other secondary degenerative transformations.
- Neurological and/or motorial deficit was recorded in 85% (damage of sensibility, tendon reflexes or motoricity).
- Function of the spinal column was preserved for the period of 10,5 years on average if the process was of segment character, which referred also to the respiratory function in which the abdominal type of breathing was predominant after 15,5 years.

Conclusion The presented differences occur for slow process of development of Sp in ReA, because of the involvement of either one or a small number of vertebral units of the spinal column and the presence of discitis, whereas in AS, the course of ossification of the fibres of annulus fibrosus is faster than the destruction of the discus, inner fibres of annulus fibrosus and nucleus pulposus being preserved, in this way the i.v. spaces remain unreduced, not allowing neither discovertebral conflict nor the resulting neurological damage.

SAT0008 BONE MASS EVALUATION USING QUANTITATIVE COMPUTED TOMOGRAPHY IN ANKYLOSING SPONDYLITIS

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Background Osteoporosis (OP) is now a well recognised feature of ankylosing spondylitis (AS). Dual energy x-ray absorptiometry, which is the most routinely used method to assess OP, fails to demonstrate spine OP in patients with late stage disease (syndesmophytes and facet joints ankylosis). Therefore, quantitative computed tomography (QCT) is the only method that can evaluate correctly the spinal OP in patients with advanced spinal changes.

Objectives To study OP prevalence in AS using QCT and relationship between OP and AS symptomatic and structural severity.

Methods 27 patients with AS were enrolled prospectively: 24 men (88.8%) and 3 women with mean age of 37.7 ± 9.2 years [17–66] and mean disease duration of 7.6 ± 4.7 years [0.4–19]. The patients were studied clinically, radiologically and by QCT.

Results OP at the lumbar spine as defined by Z score < -1 was observed in 11 patients (40.7%). Osteoporotic patients were older than normals (42.3 yrs (9.8) vs 34.6 (7.6); $p = 0.03$) and

had more severe disease as showed the significant statistical differences in symptomatic and structural parameters (chest expansion, BASMI, BASRI, and syndesmophyte score). There was a negative significant statistical correlation between Z score and Schöber index, chest expansion, BASMI and radiological indexes (syndesmophytes score, BASRI).

Conclusion

- OP is frequent in AS.
- Patients with AS are more susceptible to develop OP when they have active and severe disease.

SAT0009 CERVICAL SPINE INVOLVEMENT IN ANKYLOSING SPONDYLITIS

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Background

Objectives To study cervical spine involvement in ankylosing spondylitis (AS) and evaluate correlations with disease symptomatic and structural severity.

Methods Prospective evaluation of AS during one year. Clinical, biological, and radiological data were collected. The risk of CS involvement was estimated using Kaplan-Maier's method.

Results 61 patients were enrolled: 38 males (62.2%) and 23 females of mean age 35.1 yrs (11) [range 17–66]. The mean disease duration was 10.6 yrs (7) [0.5–30]. Forty three patients (70.4%) had history of neck pain. Radiological involvement was present in 33 cases (54%). The concordance between clinical and radiological presentation was statistically significant ($k = 0.49$; $p < 1-6$). The risk of the cervical spine involvement with regard to disease duration showed that 19.6% of patients had radiological involvement after 5 years of disease duration, 29.9% after 10 years, 45.1% after 15 years and 70.0% after 20 years. Comparison between patients with and without cervical spine radiological involvement showed no difference in age of onset or sex. There was statistical difference in symptomatic severity parameters (Schöber, chest expansion, BASMI, BASFI, BASDAI, BASG) and structural severity parameters (lumbar syndesmophytes score, BASRI). There was a significant correlation between cervical spine radiological scores (facet joint score and BASRI) and age, disease duration, and symptomatic severity indexes (chest expansion, Schober, BASMI, BASFI) and disease activity index (BASDAI).

Conclusion Cervical spine involvement increases with age and disease duration in AS. Its severity is correlated to symptomatic and structural severity indexes of the disease.

SAT0010 THORACIC HIGH RESOLUTION COMPUTED TOMOGRAPHY IN PATIENTS WITH ANKYLOSING SPONDYLITIS AND WITHOUT RESPIRATORY SYMPTOMS

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Background

Objectives To identify the spectrum of abnormalities seen on thoracic High Resolution Computed Tomography (HRCT) in

patients with ankylosing spondylitis (AS), and to look for correlations with clinical findings, plain radiography and pulmonary function testing.

Methods 28 patients with AS meeting the modified New York criteria and without history of respiratory symptoms were enrolled prospectively: 25 men (89.2%) and 3 women with mean age of 37.8 (9.1) years [17–66] and mean disease duration of 7.8 (4.6) years [0.4–19]. All patients underwent posteroanterior plain chest radiography, HRCT and pulmonary function tests.

Results HRCT revealed abnormalities in 17 patients (60.7%); these included interstitial lung disease ($n = 2$), paraseptal emphysema ($n = 2$), apical fibrosis ($n = 2$), bronchiectasis ($n = 1$), and non-specific interstitial lung disease ($n = 11$). Plain radiography was abnormal in only 2 cases. Comparison between patients with and without defined thoracic HRCT abnormalities showed no differences in age, sex, disease duration, history of smoking, radiological scores (syndesmophytes score, BASRI) or ESR but showed significant statistical difference in symptomatic severity parameters (Schöber, BASMI, BASDAI). Pulmonary function tests showed a restrictive process in four patients in whom three had an abnormal chest HRCT and an obstructive process in two patients in whom one had emphysema and apical fibrosis on chest HRCT.

Conclusion This study, which describes thoracic HRCT findings in patients with AS and without respiratory symptoms, confirms the high prevalence of a spectrum of abnormalities undetectable on standard plain radiography.

SAT0011 ASSOCIATION OF PHENOTYPIC EXPRESSION OF ANKYLOSING SPONDYLITIS (AS) WITH THE PRESENCE OF HLA-B60 ANTIGEN

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Background

Objectives To investigate the association of hip and eyes involvement with the presence of HLA-B60 antigen in AS patients.

Methods HLA-B60-typing was performed in 49 AS patients (all patients fulfilled the New York criteria for AS): 14 female and 35 male; mean age 38,8 years, mean disease duration 15,3 years. The diagnosis of anterior uveitis was verified by an ophthalmologist. Pelvic X-rays, ultrasonography of joints and densitometry were performed to estimate the hip involvement. Periarticular osteoporosis, joint space narrowing (<4 mm), osteophytes, cysts, erosive changes, aseptic necrosis of the femoral head, thickness of the synovial membrane and hip joint effusion were considered as the features of hip involvement.

Results 5 (10,2%) of 49 patients were B60-positive. 44 patients (89,8%) were B60-negative. 13 patients (26,5%) had anterior uveitis. All of them were B60-negative. The hip involvement was observed in 100% of B60-negative and in 80% of B60-positive AS patients.

Conclusion Our results consent to other authors' data about the less hip and eyes involvement in HLA-B60-positive AS patients. Further investigation is needed to confirm these results on the greater patient group.

SAT0012 THE RELATIONSHIP BETWEEN SPINAL, SACROILIAC INVOLVEMENT AND FUNCTIONAL ASSESSMENT IN ANKYLOSING SPONDYLITIS

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Background Ankylosing Spondylitis (AS) is a chronic destructive and deforming joint disease that affects both axial and peripheral joints. The relationship between the radiological changes of the joint disease and its functional consequences is important. Because sacroiliac joint abnormalities and spinal ligamentous calcification and ossification, syndesmophytes, osseous fusion may be caused clinical manifestations and disability.

Objectives The aim of the present study was to evaluate the correlation existing between the radiological progression of the disease and functional impairment in AS.

Methods 36 patients with clinically and radiologically verified AS were recruited to participate in the study.

All patients had standard anteroposterior, lateral lumbar spine radiography and Ferguson views of the sacroiliac joints.

A global grading system including sacroiliac joints (New York Criteria) and a detailed scoring system of the lumbar spine (Stoke Ankylosing Spondylitis Spine Score (SASSS)) were used to assess structural damage.

Functional impairment was assessed by the Bath Ankylosing Spondylitis functional index (BASFI). The BASFI consists of eight items on daily activities and two items assessing the patients' ability to deal with their everyday life. BASFI are validated and widely used instruments to assess physical function in patients with AS.

We correlated the BASFI with radiographic damage measures.

Results The sacroiliac scores were on range of 2–4 according to New York criteria (mean = 2.0 ± 0.73). Lumbar spine radiographic scores were on range of 7–40 according to SASSS (mean = 19.4 ± 8.07).

Functional index correlated with the damage measures of lumbar spine ($r = 0.43$, $p = 0.01$). However no significant difference was noted between functional impairment and sacroiliac involvement ($\chi^2 = 2.6$, $p = 0.27$).

Conclusion Ascending spinal involvement showed more related to change of functional impairment than damage of sacroiliac joints.

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SAT0013 SERONEGATIVE B27 NEGATIVE UNDIFFERENTIATED OLIGOARTHRITIS: LARGE FOLLOW-UP STUDY OF 40 CASES

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