evaluated on a standardised sheath. An US erosion were defined as a defect in the bone cortex visualised in the longitudinal scan and different from known US bone irregularities due to tendon tracks etc. A MRI erosion was defined as a focal loss of signal intensity within the bone. For all imaging modalities the erosions were marked $\pm$ erosion in the bone surface examined.

Results US detected a total of 36 bone surfaces with erosions, MRI 29 and CR 7. US and MRI agreed on 76 of 106 surfaces (72%), Kappa = 0,33; US and CR agreed on 74 of 106 surfaces (70%), Kappa 0,14 and MRI and CR agreed on 86 of 112 surfaces (77%), Kappa 0,24.

Conclusion Of the three imaging modalities US and MRI were in closest agreement and both more sensitive than CR. Differences in the US and MRI interpretations of erosions remain to be clarified.

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SAT0214 OS CALCIS DENSITOMETRY (PIXI) FOR OSTEOPOROSIS SCREENING IN POSTMENOPAUSAL WOMEN

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Background

Objectives To determine t-score values which should be applied for the screening of osteoporosis in postmenopausal women when using a peripheral os calcis densitometer (PIXI).

Methods Heel bone mineral density (BMD) was measured in 81 postmenopausal women with a PIXI densitometer (LUNAR). Results (t-score values) were classified according to the WHO definition and to the manufacturer recommendations (LUNAR): normal $>-0,6$; osteopenia from $-0,6$ to $-1,6$ and osteoporosis $<-1,6$. Hip BMD measurements (DEXA) were used as to compare the results.

Results Abstract SAT0214 Table 1

	Normal DEXA	Osteopenia DEXA	Osteoporosis DEXA
Normal PIXI(WHO)	23	17	2
Osteopenia PIXI (WHO)	2	25	6
Osteoporosis PIXI (WHO)	0	2	4
Normal PIXI ($>-0,6$)	15	10	0
Osteopenia PIXI (From $-1,6$ TO $-0,6$)	9	23	6
Osteoporosis PIXI ($<-1,6$)	1	11	6

Conclusion False-negative results for osteoporosis become reduced when t-score classification recommended by the manufacturer are used as cut-off points in heel densitometry. An accurate collection of osteoporosis risk factors can help to identify those patients with hip osteoporosis among patients with heel osteopenia.

SAT0215 DIAGNOSTIC VALUE OF SYNOVIAL FLUID ANALYSIS IN PIGMENTED VILLONODULAR SYNOVITIS (PVS)-A PROPOSAL OF DIAGNOSTIC CRITERIA

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Background PVS is an idiopathic lesion that affects the synovial lining joints, tendons, sheaths, and bursa through the production of tumour-like growths. Diagnosis of PVS is difficult. Arthroscopy and biopsy together with microscopic examination is usually a base. According to our experience, cytologic features of synovial fluid is a very useful diagnostic tool in PVS.

Objectives Synovial fluid (SF) from the joints of 14 patients with biopsy-proven PVS were examined. Moreover in all the patients features of the disease were confirmed in surgical specimens.

Methods Synovial fluids were divided into three samples, for physicochemical analysis, bacteriological and cytologic findings and placed in sterile tubes. For cytological examination MMG staining was used.

Results SF analysis had revealed an inflammatory character of effusions. In all the cases synovial fluids were bloody and fragments of synovial villi in their sediments were observed as well as multinucleated giant cells, pseudomalignant cells, macrophages with phagocytized hemosiderin, foam cells and a few synovocytes. Moreover the fat crystals were seen, under polarised light.

Conclusion Cytological features of synovial fluid in PVS are in parallel with results of microscopic examination of joint tissues. In our opinion SF analysis should be the first step in the diagnostic procedure in PVS. We propose the cytologic criteria:

Major

- the presence of bloody fluid with fragments of synovial villi in sediment
- macrophages containing hemosiderin
- pseudomalignant cells

Minor

- multinucleated giant cells
- foam cells
- fat crystals

The diagnosis of PVS can be established if all major and at least one minor criteria are fulfilled.

SAT0216 JUXTAARTICULAR AND GENERAL OSTEOPOROSIS IN RHEUMATOID ARTHRITIS – RESULTS OF DXA-DENSITOMETRY

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Background Juxtaarticular osteoporosis is an early sign of inflammation in conventional radiography in Rheumatoid arthritis.

Objectives It should be shown whether juxtaarticular osteoporosis can be analysed by dual x-ray adsorption (DXA) and if there is a correlation to general bone loss in inflammatory joint disease.

Methods 20 patients with Rheumatoid arthritis and 10 patients with Fibromyalgia were analysed by DXA (Hologic 2000).

Regions of interest (ROIs) were the spine, the hip, the forearm and juxtaarticular subregions of the fingers.

Results Patients with Rheumatoid arthritis showed decreased bone densities of the spine, the hip, the forearm and the juxtaarticular joint region of the fingers. This was the case in late and early stages (Larsen 0–1) of the disease. The relative loss of juxtaarticular bone density was in these cases comparable to the relative loss of bone density of the spine and the hip.

Conclusion DXA revealed loss of juxtaarticular bone density in patients suffering from Rheumatoid arthritis. This could be a method for objective estimation of juxtaarticular osteoporosis in the early course of Rheumatoid arthritis.

Infection related rheumatic diseases

AB0203 A CASE WITH SPINAL BRUCELLOSIS AND LUMBAR DISC HERNIATION

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Background Human Brucellosis is a zoonosis and endemic in Mediterranean area. Localised osteoarticular manifestations of brucellosis include spondylitis, sacroiliitis, mono/oligoarthritis and bursitis. Coexistence of lumbar intervertebral disc herniation in spondylitis cases which do not have fever and constitutional symptoms, however, makes the diagnosis challenging.

Objectives We describe a patient with brucella spondylitis accompanying L4–5 and L5–S1 herniated nucleus pulposus (HNP).

Methods A 50 year old woman admitted to our outpatient clinic with low back pain, radiating to the lateral aspect of the left thigh lasting for 3 weeks. She did not have any history of fever, chills and constitutional symptoms. On physical examination, she was afebrile and only had tenderness over the lumbosacral region. The neurological examination revealed hypoesthesia in the right lower extremity overlapping the L5 dermatome. Straight leg raising test was positive on the right side.

Results Laboratory values were as follows: erythrocyte sedimentation rate 16 mm/hr, leucocyte count 4600/mm³, haemoglobin 10.4 gr/dl, C-reactive protein 0.143 mg/dl. Hepatic and renal function tests were normal. Seroagglutination test for brucella was 1/640. Plain radiography of the lumbar region revealed L5 spondylolisthesis and narrowed disc space between L5–S1 vertebrae. Magnetic resonance imaging (MRI) disclaimed L5 spondylolisthesis, spondylolysis, L5–S1 discitis, L5–S1 HNP, bilateral foraminal stenosis and L4–L5 minimal posterior protrusion. Total body bone scan with Tc-99m sulfur colloid revealed increased uptake at the superior region of the sacrum. Oral treatment with doxycycline and rifampin was started. There was overt clinical improvement after combined antibiotic regimen for 6 weeks. After a symptom-free period of 7 weeks a relapse occurred. An oral regimen of rifampin and ofloxacin was started again. Following up with the antibiotic therapy and immobilisation with rigid lumbosacral brace, she had a dramatic reduction in low back pain and she had regressive findings of the lesion in the control MRI.

Conclusion In some areas where brucellosis is rarely seen, due to non-specific clinical picture and low index of suspicion, disease can easily be misdiagnosed. Spinal brucellosis can be confused with disc herniation, leading to inappropriate treatment and increased morbidity. In endemic regions, coexistence with lumbar disc herniation, like in our patient, should always be in mind

of the physician and clinically, diagnosing of herniation alone should not seem satisfactory all the time.

AB0204 EARLY DIAGNOSIS AND FOLLOW-UP OF PYOMYOSITIS BY COMPUTED TOMOGRAPHY

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Background Pyomyositis is a bacterial infection of skeletal muscles, most commonly caused by staphylococcus aureus. If diagnosed early, pyomyositis can be treated with antibiotics alone. However, the diagnosis is often overlooked, or delayed because of lack of familiarity with this disease. Clinical suspicion and appropriate imaging techniques are the keys to early diagnosis.

Objectives To report a new case of pyomyositis, demonstrating the value of computed tomography (CT) in the early diagnosis and follow-up of pyomyositis.

Methods Retrospective clinical and laboratory analysis of one patient.

Results A previously healthy 44-year-old Caucasian workman developed chills and high fever, about 6 h after an abrasion of the skin over his right hand. Three days later he was admitted to the hospital with hyperthermia (41°C) and prostration. Physical examination revealed an exquisite tenderness of the right subclavicular area with local warmth, swelling and erythema of the skin, indicating acute inflammation in the chest wall. No evidence of suppuration, cellulitis, lymphangitis, or regional lymphadenopathy was observed in the right upper extremity. Laboratory investigation showed an erythrocyte sedimentation rate of 47 mm, a white blood cell count of 17,380/mm³ with 84% polymorphs, and a creatine phosphokinase of 1,520 IU/L (normal range 24–234 IU/L). Multiple blood cultures were negative and chest X-rays were normal. A CT scan of the chest demonstrated marked swelling of the right pectoralis minor muscle. This evidence of acute muscle inflammation supported the presumptive diagnosis of acute pyomyositis, in its invasive stage. Intravenous antibiotics therapy with a combination of clindamycin and ticarcillin/clavulanic acid was started on admission. Fever, tenderness, and other signs of inflammation subsided in a few days with antibiotics alone. No surgical procedure was necessary. After two weeks of hospitalisation the patient was discharged in good condition, but antibiotics were continued orally for two more weeks. Complete clinical recovery with restoration to normal of all laboratory tests was achieved within one month. A new CT imaging taken four weeks later revealed a complete resolution of the inflammation with no residual deformity of the affected muscle, verifying the favourable outcome of prompt antibiotic treatment.

Conclusion Although the causative microorganism was not identified, there is convincing evidence that this patient had pyomyositis. This case illustrates the value of CT in timely diagnosis and nonsurgical management of pyomyositis, by showing that: a) CT imaging can allow early detection of pyomyositis during its pre-suppurative phase, b) prompt antibiotic therapy may obviate surgery, and c) besides facilitating an early diagnosis, CT is also very useful in the follow-up of pyomyositis.