3 etidronate, 2 calcium and vitamin D supplements and 5 calcium supplements alone). None of the men were taking any medication for osteoporosis, a difference in comparison to women of borderline significance ($p = 0.055$, Fisher's Exact Test).

Conclusion Only a small minority of patients with low energy fractures were made aware of the possibility of having osteoporosis and were adequately investigated or treated. Men accounted for 17% of presentations, but the complete absence of advice and appropriate investigation and treatment of osteoporosis among males is striking. There is much scope for improvement in the management of low energy fractures, especially in men. A reverse of the Yentl syndrome may exist in osteoporosis.

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SAT0182 ASSESSMENT OF BONE METABOLISM IN PATIENTS WITH CHRONIC CONNECTIVE TISSUE DISEASES

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Background

Objectives The aim of our recent study was to evaluate bone metabolism in rheumatoid arthritis (RA) and systemic lupus erythematosus patients (SLE).

Methods 306 women (90 RA, 38 SLE patients and 178 healthy volunteers) were involved in the study. All SLE and 44 RA patients were on chronic glucocorticosteroids therapy (GCS). Average age was: 46.4 ± 12.8 yrs, 52.0 ± 12.0 yrs in SLE group and the control (respectively). Disease duration and duration of GCS therapy in SLE patients was: 108 ± 82 months. Total dose of GCS was the highest in SLE pts (25.3 ± 28.19 g). Patients with RA were divided into two groups: treated with GCS (average age: 52.5 ± 12.4 yrs, disease duration and duration of GCS therapy: 122 ± 102 months, total dose of GCS: 7.4 ± 8.3 g); and who were not treated with GCS (average age: 54.3 ± 9.7 yrs, disease duration: 134 ± 120 months). In all patients the following markers of bone metabolism were measured: osteocalcin, procollagen C, alkaline phosphatase-bone fraction, carboxyterminal telopeptides of type I collagen (CTX), procollagen type I carboxyterminal propeptide (PICP), deoxypyridinoline. The disease activity was assessed by measuring serum levels of proinflammatory cytokines (IL-1a, IL-6, TNF-alpha, GM-CSF) and acute phase markers (ESR, CRP, AGP, AGP-RC, ACT).

Results Concentration of biochemical markers of osteoporosis suggesting increased bone metabolism in RA patients indicates significantly higher bone loss in this group than in SLE patients in spite of the highest dosage of GCS. There was no significant differences between bone turnover in RA patients treated and not treated with GCS.

Conclusion The serum levels of proinflammatory cytokines and acute phase markers confirm the highest stage of the disease activity in RA patients.

SAT0183 BONE MINERAL DENSITY IN WOMEN WITH RHEUMATOID ARTHRITIS

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Background Rheumatoid arthritis (RA) has a significant influence on bone loss in both peripheral (juxtaarticular osteoporosis) and axial skeleton. Glucocorticoids (GC) are often used in the therapy of RA and contribute significantly to favourable disease outcome but have been accused to cause a bone loss in these patients.

Objectives To assess the influence of GC on the occurrence of osteoporosis in RA patients.

Methods Hundred and seven women with RA were evaluated. They were divided in two age-groups: 40–49 and 50–59. The assessment of bone mineral density was performed by dual energy x-ray absorptiometry (DEXA), using Lunar DPX densitometer. Anterior-posterior spine scan of lumbar vertebrae L1–L4 was performed.

Results The following average values of bone mineral density (BMD) were found: 1.116 g/cm^2 for age-group of 40–49 and 0.942 g/cm^2 for 50–59 years old patients. In comparison with control group (300 healthy women of the same age-groups) we found significantly lower BMD in RA patients ($p < 0.05$ for the age group of 40–49 and $p < 0.001$ for age-group of 50–59).

Annual rate of bone loss in both control and group of RA patients was also evaluated. In the control group annual loss was 0.57%, and in group of RA patients 1.45% ($p < 0.001$).

In RA patients treated with GC significantly lower BMD in comparison with RA patients not taking these drug was found.

Abstract SAT0183 Table 1

Age	RA without GC g/cm ²	RA with GC g/cm ²	p
40–49 years	1.129 ± 0.104	1.066 ± 0.104	< 0.05
50–59 years	0.965 ± 0.136	0.897 ± 0.112	< 0.05

Conclusion Osteopenia defined as BMD below one standard deviation from the corresponding young adult normal value was found in 26% of RA patients aged 40–49 and in 45% RA patients aged 50–59.

In conclusion this study has confirmed that the disease itself, therapy with glucocorticoids and oestrogen deficiency during menopause influence bone loss in RA patients.

Diagnostics and imaging procedures

AB0193 ELECTROMYOGRAPHY AND NERVE CONDUCTION IN PATIENTS ON REGULAR HAEMODIALYSIS

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Background

Objectives The evolution of nerve conduction studies and EMG was determined following 30 patients with chronic renal failure maintained on regular haemodialysis for 12 months.

Methods Eighteen different electroneurographic (ENG) indices were compared in three groups of patients of different dialysis duration.

Results No relationship was found between neuropathy and duration of haemodialysis. No correlation was found between all ENG indices and the age and sex. Also, nerve conduction was independent of the disease underlying renal failure. The side of arteriovenous vascular access had no statistically significant effect on motor nerve conduction studies in the upper extremities.

ENG indices showed no significant correlation with serum creatinine, PTH, and beta 2 microglobulin.

Mean motor nerve conduction velocity (MNCV) and distal latency (DL) were significantly different (decreased and increased respectively) at the beginning of the study and one year later for the median, ulnar, and common peroneal nerves on both sides. The change was more in patients with low Kt/V (a depuration index) than those with high Kt/V.

Conclusion At the end of the study all patients had had peripheral polyneuropathy, 8 patients (26.7%) had got CTS, and 8 patients (26.7%) had subclinical median mononeuropathy. Axonal neuropathy was present in 100% of patients and demyelinating neuropathy was present in 8 patients (26.7%).

AB0194 USES OF MAGNETIC RESONANCE IMAGING (MRI) AND MYELOGRAPHY IN IRAQI PATIENTS WITH PROLAPSED INTERVERTEBRAL DISC (PID) AND THE CORRELATION OF JOINT MOBILITY TO PID

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Background

Objectives To compare between the uses and side effects of MRI and myelography for the diagnosis of PID, and to assess the relation between PID and joint mobility.

Methods One hundred thirty patients with PID proved by MRI (65) on myelography (65) were compared with that in an age and sex matched healthy 130 individuals without PID joint mobility was scored on a scale of 0–8 using the method described by Reighton *et al.*

Results PID was commonly reported at L4/5 or L5/S1 levels, whilst other levels were less frequently involved. Both imaging modalities were highly sensitive to prove the diagnosis of PID and its level, unfortunately myelography showed significantly more side effects compared to MRI.

The number of patients with hypermobile joints and the total mobility scores were comparable in patients and control groups.

Conclusion This study showed that both imaging modalities are sensitive for diagnosis of PID, and MRI is a safer technique compared to myelography. There is no relation between PID and joint mobility.

AB0195 WHIPLASH FROM HEAD TO TOE

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Background Although “Whiplash” is an overworked term, it is a troublesome, underdiagnosed, undertreated problem. Unless cervical “straightening” indicates muscle spasm secondary to soft-tissue injury, X-rays, CT scans, MRIs contribute little diagnostic information.

To diagnose true “whiplash,” the old-fashioned fundamentals of medical practice—a careful history and a thorough physical examination—are necessary.

Objectives Evaluating Cyriax’s dicta that: 1) examining the neck alone for post-traumatic, soft-tissue damage is an inadequate diagnostic approach; 2) since “All muscle spasm is secondary,” the source of the spasm must be found to diagnose and treat the condition.

Methods From 1–1–97 to 1–1–2000, 197 patients presented with musculoskeletal complaints of the neck secondary to trauma from an automobile accident.

Although all 197 had virtually no other musculoskeletal complaints, our examinations worked from the foot upward in sequence: 1) the foot for lost cuboid subluxation; 2) superior tibio-fibular joint for lost joint-play; 3) knee for passive “springy-block”; 4) sacro-iliac for subluxation and torsion; 5) lumbar spine for damaged lumbar discs; 5) thoracic spine for muscular imbalance and T3 syndromes; 6) cervical spine for disc derangements and Barre’s posterior cervical syndrome associated with discs at C2–3 and C3–4.

Results Pedal eversion loss; superior tibio-fibular subluxation; blocked knee movement with “springy” end-feel denoting loose bodies in virtually all patients. Anterior superior iliac (ASIS) and posterior superior iliac spinal (PSIS) imbalances and “Lock Sign” were usually evident. Warm, swollen, tender PSIS areas and upper lumbar spinal levels indicated disc derangement. Compensatory scoliosis with muscular hypertonus over T/6 was usually present. The usually neglected costo-transverse syndrome was present in 75% of patients. Cervical disc derangement, at C2–3, C3–4, and C7/T1, with headaches, dizziness, pain and restricted motion on attempted extension evident almost universally.

Conclusion Once we had precisely identified the involved areas, mobilisation of affected areas, avoidance precautions, and occasional recourse to sclerotherapy achieved prompt—often dramatic, cost-effective, symptomatic amelioration of these vexing problems in 192 patients.

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AB0196 THE FREQUENCY OF POPLITEAL CYST IN RA PATIENTS – ULTRASONOGRAPHIC ASSESSMENT

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Background