stratified at levels are shown in the Table 1. The kappa value for level L5/S1 was -0.18 and the kappa value for the levels L3/4 and L4/5 were 0.13 and 0.25 respectively. At levels L3/4 and L4/5 a total agreement of 40/63 was found.

Conclusion At level L5/S1 US does not seem to be of any diagnostic value. At the levels L3/4 and L4/5 US was in agreement with CT/MRI in about 2/3 of the patients and could be of potential use at these levels. Further investigations are needed to establish the role of US.

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OP0078 ASSESSMENT OF A BIOFEEDBACK PROGRAM TO TREAT CHRONIC LOW BACK PAIN

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Background Low back pain is a common problem that can affect up to 80% of adults during their lives. The symptoms of these chronic pain patients include affective, cognitive and behavioural components. Many interventions have been found to be beneficial in the rehabilitation of chronic low back pain patients, one of them is biofeedback.

Objectives Assess the efficacy of a biofeedback program for chronic low back pain patients and its impact in their pain, disabilities, and depression and anxiety symptoms; and promote higher abdominal muscles contraction levels without increasing paraspinal muscles contraction levels.

Methods Sixty patients with chronic low back pain were randomly assigned into a control and a treatment group and were oriented to take analgesics when necessary. The treatment group participated in a biofeedback program (8 weeks) that included: global relaxation training and abdominal strength exercises with and without biofeedback and cognitive restructuring techniques. The outcome measures used were Visual Analogue Scale (VAS), Roland-Morris questionnaire, Schöber Index, Beck Depression Inventory (BDI) and State-trait Anxiety Inventory (STAI) in the beginning and at the end of the observation period. Contraction (EMG) levels of abdominals and paraspinal muscles were registered in the beginning, after 1 month and at the end of the observation period.

Results At the end of the observation period treatment group patients improved significantly on VAS ($p = 0,012$) and STAI ($p = 0,003$). Roland-Morris questionnaire improved in both groups without differences between them (treatment $p = 0,0001$ and control $p = 0,006$). The control group improved significantly on BDI ($p = 0,013$). There were no differences in the contraction levels of abdominals and paraspinals muscles, and neither in the Shöber Index.

Conclusion Our biofeedback program reduced pain and anxiety symptoms of chronic low back pain patients. The disabilities improved in both groups. The program didn't change depression symptoms and the paraspinal contraction levels while contracting abdominal muscles

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OP0080 A RANDOMISED CLINICAL TRIAL OF THREE BACK MUSCLE REHABILITATION PROGRAMS FOR CHRONIC LOW BACK PAIN

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Background

Objectives The purpose of this study was to determine the efficacy (pain relief and functional outcome) and the effect on the cross-sectional area (CSA) of the lumbar multifidus in chronic low back pain patients (CLBP).

Methods To achieve this goal, fifty-nine patients were randomised into a 10-week stabilisation training (group 1, N = 19), a 10-week stabilisation training combined with dynamic resistance training (group 2, N = 20) and a 10-week stabilisation training combined with dynamic-static resistance training (group 3, N = 20). Prior to and after 10 weeks of training, the multifidus CSA's, were derived from standard CT images at three different levels (upper endplate of L3 and upper and lower endplate of L4). Pain relief and functional outcome were evaluated.

Results Comparing pre-post training, the CSA of the multifidus statistically increased in group 3 at all levels. In contrast, no statistical differences over time were found in group 1 and 2. Comparing the increases in CSA during the study, a statistical significant greater increase was observed in group 3 compared to group 1 and 2. After intervention, all groups showed a statistically significant reduction in pain and functional disability levels, without statistically significant difference among the three intervention groups.

Conclusion The results of this study suggest that stabilisation exercises and dynamic intensive lumbar resistance training have no significant effect on the CSA of the lumbar multifidus in CLBP patients. The static holding component, between the concentric and eccentric phase was found to be critical in inducing muscle hypertrophy during the first 10 weeks. On the basis of the pain and disability improvements all of the treatments were equally beneficial.

Psychology, measurements and management of pain

SAT0118 MERALGIA PARASTHETICA IN PREGNANCY

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Background

Objectives To study the association between pregnancy and meralgia paresthetica (mp), the entrapment neuropathy of the lateral femoral cutaneous nerve (LFCN).

Methods Three hundred and forty pregnant women were surveyed by history and clinical examination in 3 major obstetric centres in Baghdad for the presence of underlying mp and compared to a control group of 200 non-pregnant females.

Results Thirteen pregnant women were found to have MP (3.8%) in contrast to only one out of 200 non-pregnant women in the control group (0.5%), which was significant statically ($P = 0.019$).

Most of the cases were in their third trimester (53.8%), then in the second trimester (38.5%), while only 7.7% of cases in the first trimester.

Conclusion MP in pregnancy is not a rare disorder but is often misdiagnosed. The aetiological factors in pregnancy may be mechanical and/or anatomical variations of the LFCN. However, this study disproves neither a hormonal nor a hereditary role in the causation of the disorder.

SAT0119 DENIAL IS A COPING STRATEGY IN EARLY RHEUMATOID ARTHRITIS

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Background Rheumatoid Arthritis (RA) is associated with negative psychological outcomes, including depression. Denial is a coping strategy in stressful situations, with well-documented impact on psychological and physical outcome, but has been little studied in RA.

Objectives To investigate several psychological, social, demographic, and physical factors as predictors of the use denial as a coping strategy in RA.

Methods Patients: 118 hospital outpatients with early RA (4 years; $N = 84$). Denial: Reaction to Impairment and Disability Inventory (RIDI). Other assessments: Age, Sex, VAS for Pain and Fatigue, Arthritis Self-Efficacy Scale (ASES), Patient Knowledge Questionnaire (PKQ), Social Support Survey (SSS), Health Assessment Questionnaire (HAQ). Statistics: Principal component analysis (to examine factor structure of Denial questions); hierarchical multiple regression (to determine predictors of Denial).

Results Three denial factors with eigenvalues >1 were extracted: "Future Denial" (3 items; 33% of variance), "Conditional Improvement" (3 items; 22% of variance), and "Present Denial" (1 item; 16% of variance). The Future Denial subscale had good internal consistency ($\alpha = 0.83$ compared to $\alpha = 0.47$ for Conditional Improvement). Early RA and being single were

the only significant predictors of Future Denial. Better functional ability was the only predictor of Present Denial. No factors predicted the use of Conditional Improvement.

Conclusion Aspects of denial, particularly Future Denial, may be utilised in the early stages of RA, mainly by those without a partner to rely upon, as a coping strategy to "buy time" in order to come to terms with actual and potential disease impact. Patients who report better functional ability may also be denying current loss of ability; this raises questions about the beneficial nature of self-deceptive attitudes in RA patients and may be clarified by a longitudinal study. Denial should be taken into account when assessing both physical and psychosocial outcomes in RA.

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SAT0120 PSYCHOLOGICAL ADJUSTMENT MEDIATES THE RELATIONSHIP OF SOMATIC SYMPTOMS WITH MENTAL HEALTH AND PHYSICAL FUNCTION IN RHEUMATOID ARTHRITIS

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Background Pain and fatigue have been linked to negative mental and physical outcome in Rheumatoid Arthritis (RA), but this link may be mediated by psychological processes.

Objectives To examine whether the link of RA symptoms to well-being is mediated by the process of psychological adjustment, defined as Disease Self-Efficacy (belief in certain abilities), Disease Acceptance (the ability to accommodate disease-generated stressors), and General Self-Discrepancy (the distance between the actual and ideal self-concepts).

Methods Patients: 140 random, consenting hospital outpatients with RA. Instruments: (a) Somatic symptoms: Visual Analogue Scales for pain and fatigue; (b) Mental Health: Hospital Anxiety and Depression Scale (HAD); (c) Physical Function: Health Assessment Questionnaire (HAQ); (d) Psychological Adjustment: Arthritis Self-Efficacy Scale (ASES), Acceptance of Illness Scale (AIS), and Self-Discrepancy Scale (SDS). Statistics: correlation, hierarchical multiple regression.

Results Regression strategies to detect mediators indicated that: Disease Acceptance and Self-Efficacy For Other Symptoms mediated the relationship between Fatigue and Depression (beta reducing from 0.28, $p < 0.01$, to 0.02, n.s.); Self-Efficacy for Other Symptoms also mediated the relationship between Pain and Depression (beta reducing from 0.23, $p < 0.05$, to 0.11, n.s.); and Self-Efficacy for Pain mediated the relationship between Pain and Physical Function (beta reducing from 0.21, $p < 0.05$, to 0.08, n.s.).

Conclusion Disease Acceptance and Self-Efficacy as measures of Psychological Adjustment mediate the relationship of somatic symptoms with mental health and physical function in RA. They may be appropriate targets for intervention in patients with RA.