morning stiffness (minutes) fatigue, sleep disturbances and other vegetative and functional symptoms. Severity of depression was also evaluated with Hamilton Depression Rating Scale, 17-item version (HDRS).

Results 12 from 17 patients (70%) showed a clinical improvement at the end of the study as a consequence of the reduced intensity of pain (8,1 before, 4,6 after therapy, $p < 0,001$), morning stiffness (57,6 min. vs 36,8 min., $p < 0,005$), fatigue (8,3 vs 5,3, $p < 0,001$), sleep disturbances (8,2 vs 2,5, $p < 0,0005$), headache (7,1 vs 4,2, $p < 0,005$), gastrointestinal symptoms (6,1 vs 2,4, $p < 0,005$) or paresthesia (8,5 vs 4,8, $p < 0,005$). The reduced severity of depressive symptoms was also observed (17,7 vs 6,8, $p < 0,001$). Six patients complained of sleepiness and hypotension during the first days of therapy, in three cases dose of mirtazapine was reduced to 15 mg and treatment continued, three patients (female) were excluded from the study.

Conclusion Our data suggest that mirtazapine could be an effective and promising method in the treatment of fibromyalgia patients. During the treatment of FS patients strict cooperation between rheumatologists and psychiatrist is needed.

SAT0142 EFFICACY ANALYSIS OF LOW-ENERGY LASER THERAPY IN TREATMENT OF FIBROMYALGIA

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Background

Objectives The aim of the study was to investigate the efficacy of low-energy laser therapy versus placebo in treatment of patients with fibromyalgia.

Methods We followed 36 female patients (age from 31 to 51 years, mean age 41.94 years) with fibromyalgia according to latest American College of Rheumatology (ACR) criteria for diagnosis. The first group of 18 patients was treated with low-energy laser 10 times every other day by scanning each of tender points with single therapy dose of 40 J. Identical procedure was performed in the second group of 18 patients, but low-energy laser diode was switched-off. All patients from both groups took similar drugs – NSAIDs and benzodiazepines, also had similar low-impact and stretching exercises. We measured the count of tender points, pain intensity with four-scale questionnaire; also sleep disturbance and malaise with similar four-scale questionnaire, before and after therapy procedure. Results were statistically analysed with Wilcoxon matched pairs test within groups of patients and with Mann-Whitney U test between groups.

Results In both groups we found statistically significant lowering of count of tender points ($p < 0.001$), pain intensity ($p < 0.001$), sleep disturbance ($p < 0.001$) and malaise ($p < 0.001$ in the first group and $p < 0.05$ in the second) after therapy procedure. Between groups we found that lowering of all followed disease parameters was more clearly in the first group and all differences were statistically significant ($p < 0.0001$ for all parameters).

Conclusion Treatment of patients with fibromyalgia with low-energy laser therapy improves symptoms of disease more than placebo. This statement suggests that low-energy laser therapy have prominent place in up to date treatment of patients with fibromyalgia, especially because of patient's tolerance, no contraindications and simple applicability.

SAT0143 PSYCHOSOMATIC ASPECTS OF FIBROMYALGIA VERSUS RHEUMATOID ARTHRITIS

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Background The psico-social dimensions of fibromyalgia (FM) remain controversial, not only regarding its characterisation but also its possible causal or consequential relationship with the chronic pain status. The usual discrepancy between the self-report instruments of functional impairment and the observed disability favours a process of somatization. The contribution of pain and emotions to general health status are open to debate.

Objectives We attempted to investigate emotional disturbances in patients with fibromyalgia and rheumatoid arthritis (RA) and their relationship with self-reported general health.

Methods 58 FM patients and 43 RA patients, fulfilling the ACR criteria, were included on a consecutive basis from our Rheumatology outpatient clinic. Social and demographic data were collected and found to be comparable among the groups, as well as disease duration. The Short-Form Health Survey (SF-36) and the Brief Symptom Inventory (BSI) were applied twice, with 6 months interval. Both instruments were evaluated regarding each of their different dimensions and summary score. Statistical analysis employed Student's t test.

Results FM patients scored significantly higher in every single BSI dimension (somatization; obsession/compulsion; interpersonal relationship; depression; anxiety; hostility; phobic anxiety; paranoid ideation and psychoticism). FM patients also showed significantly lower levels of general health, as evaluated by SF-36, both in mental and physical components. These differences remained stable in re-evaluation.

Conclusion FM patients have a higher score for associated psychopathologic symptoms. This parallels their higher dissatisfaction with general health, not only in its mental aspects, but also on physical function and performance. These results demonstrate a strong coexistence of pain and psychopathological traits in FM patients, which may have a strong influence on reported functional status. The possibility that such psychological disturbances are a consequence of the disease, and especially chronic pain, is questioned by the much lower prevalence of such disorders in RA patients of similar disease duration.

SAT0144 THE 24-HR URINARY EXCRETION OF 6-SULPHATOXYMELATONIN AND 5-HYDROXYINDOLEACETIC ACID IN WOMEN WITH PRIMARY FIBROMYALGIA AND CHRONIC LOW BACK PAIN

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Background Fibromyalgia syndrome (FS) is characterised by chronic "widespread" musculoskeletal pain, presence of multiple tender points, fatigue, depression/anxiety, and sleep disturbance. Recently, evidence has accumulated to link the FS pathogenesis to serotonin (5-hydroxytryptamine, 5-HT) deficiency. Since melatonin, a pineal hormone responsible for the regulation of sleep

and circadian rhythms, is closely related to 5-HT, it seems interesting to study the role of melatonin in FS.

Objectives The aim of the study was to examine the total 24-hr 5-HT and melatonin secretion in patients with FS and chronic low back pain (LBP) in relation to pain intensity, symptoms of anxiety/depression, and the severity of sleep disturbance.

Methods The 24-hr urinary excretion of the 6-sulphatoxymelatonin (aMT6s, main catabolite of melatonin) and the 5-hydroxyindoleacetic acid (5-HIAA, main catabolite of 5-HT) were measured using ELISA in women with FS (n = 18) and women with LBP (n = 15). The groups were matched with regard to age, diet, and the intensity of pain. Clinical measures of pain intensity, no of tender points, pain threshold (dolorimetry), psychological profile (SCL-90-R), and the severity of sleep disturbance (Schlaffragebogen-A and -B, SF-A and SF-B) were evaluated.

Results The excretion of aMT6s and 5-HIAA was lower in FS when compared to LBP (8.79 ± 1.90 micrograms/24 hrs vs 12.53 ± 3.01 micrograms/24 hrs and 4.72 ± 0.36 mg/24 hrs vs 8.79 ± 1.47 mg/24 hrs, respectively), but the difference was significant with regard to 5-HIAA only ($p < 0.03$). No correlation was found between the aMT6s and 5-HIAA within the study groups. In both groups, there was no relationship between the clinical measures of pain and tenderness and the excretion of the two catabolites. In FS, aMT6s excretion correlated weakly with the sleep quality (SQ, SF-B) ($r = 0.4966$, $p < 0.05$) and the symptom duration ($r = -0.5101$, $p < 0.05$). When compared with the LBP group, the FS patients scored significantly higher on the G1 and G4 (somatization and depressivity) scales of SCL-90-R, ($p < 0.05$ for both comparisons) and the FRS subscale (feeling of recovery after sleep) of SF-A and SF-B ($p < 0.05$ and $p < 0.001$, respectively).

Conclusion Since the 24-hr urinary excretion of aMT6s closely follows the total 24-hr melatonin secretion, our results do not support the hypothesis of the disturbed metabolism of melatonin in FS. The small differences seen may result from the differences in the severity of mood and sleep disturbance. Further research is necessary to look at possible abnormalities in the circadian rhythm of melatonin secretion in FS.

SAT0145 PERSONALITY STRUCTURE IN PATIENTS WITH PRIMARY FIBROMYALGIA AND RHEUMATOID ARTHRITIS

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Background Psychiatric symptoms occur in patients with chronic pain. It is well known that patients with rheumatoid arthritis present symptoms of depression to various degrees of intensity. Primary fibromyalgia syndrome is a form of non articular rheumatism characterised by generalised aches, pains, tender points, stiffness, and fatigue. There is an interest association between depression and pain.

Objectives The present study examines the personality structure of the patients with primary fibromyalgia syndrome and rheumatoid arthritis.

Methods Fifty (50) patients with rheumatoid arthritis and twenty-five (25) with fibromyalgia compared with fifty (50) non-patients without pain. All patients presented the basic criteria and symptoms for rheumatoid arthritis (based in diagnostic criteria of the ARA revised at 1987 and the ACR 1990 diagnostic

criteria for the fibromyalgia). The psychometric instruments are; a) HDHQ [Hostility and Direction of Hostility], b) The SCL-90R [Symptom Check List-90R], c) DSSI-SAD[Delusions Symptoms Inventory-State of Anxiety and Depression].

Results The patients with primary fibromyalgia presents higher scores of depression and somatization than patients with rheumatoid arthritis.

Conclusion Probably the patients with rheumatoid arthritis are reasonable and accepted from this parents because is evident in our disability.

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SAT0146 RESULTS OF FOUR-YEARS EXPERIENCE IN FIBROMYALGIA FOLLOW-UP OUTPATIENT CLINIC

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Background Fibromyalgia, well-defined disease with widespread pain and tender points is still a challenge. Since it's medically unexplained, the therapy remains empiric. So we need to assess our therapy results in longterm.

Objectives To determine the demographic, clinical properties with therapy results of patients followed in the Fibromyalgia Out-patient Follow-up Clinic (FOFC).

Methods In this study the records of the patients registered to FOFC were searched retrospectively. Records included demographic data, existing medical problems, symptoms related to fibromyalgia, VAS and Likert scale (0-4) for pain, scale scoring sleep disorder, number of tender points (TP), Fibromyalgia Impact Questionnaire (FIQ), Health Assessment Questionnaire (HAQ), Beck Depression Scale (BDS), laboratory assessments and therapy given. Patients were assessed by one trained researcher and by either one of the supervisors (YG, SE) at each visit. One hundred-twentythree records out of 166 were found to be eligible for analysis with sufficient data. SPSS 9.0 was used for statistical analysis.

Results Twenty-four patients (19,5%)(M = 3, F = 21) out of 123 were excluded with other diagnosis after initial assessment or after a few visits. Of these patients 95% had fatigue, 91% headache, 75% widespread pain, and 50% sleep disorder. Ninety-nine patients diagnosed as fibromyalgia were all female with mean age of 40,89 years, mean duration of symptoms 56,90 months. Eighty-one were married, 8 single and 9 widow, 21 had a job and 78 were housewives. The most common symptom was fatigue (99%) followed by widespread pain (91%), headache (84%), and sleep disorders (79%). Initial mean values for VAS was 72,26 mm, Likert scale was 2,71, number of TP was 14,02, HAQ was 8,74 and BDS was 16,64. VAS showed good correlation with Likert scale ($r = .619$), 6th and 9th items of FIQ ($r = .453$, $r = .418$) but weak correlation with sleep scores, HAQ, interestingly no correlation with TP. Tender points did not show significant correlation with any other of the items. Patients were treated with TCAs and SSRIs, NSAID and analgesics were added when needed, physical therapy modalities, ROM, stretching and aerobic exercises were used in some patients or combined to other therapies. Overall analysis showed