

comparison with those reporting NCP (471.8 kPa vs. 479.9 kPa; $p=0.855$). The number of reported pain regions correlated negatively with PPTg in women ($r=-0.384$; $p<0.001$) but not in men ($r=-0.195$; $p=0.149$). Subjects having a score of ≥ 4 for the sleep problem "frequent awakenings" had lower PPTg than those with a lower score (332.9 vs. 464.7; $p<0.001$). This was also true, but with less difference, for the sleep problems "not feeling rested" (335.7 vs. 449.1; $p=0.023$), and "early awakening" (353.0 vs. 452.6; $p=0.020$), but not for "initiating sleep" (361.5 vs. 436.8; $p=0.199$). In the ANCOVA analysis both a higher number of painful regions ($B=-9.2$; $p=0.016$) and more problems with frequent awakenings ($B=-40.1$; $p=0.003$) were associated to a lower PPTg, controlled for age and gender.

Conclusions: Subjects with CWP according to self-reported pain distribution were more sensitive to pain pressure than those with CRP and NCP, and so were also subjects reporting problems with sleep. In the clinic, self-report of CWP can be used as an indicator of pain sensitivity, but it is also important to assess sleep problems, and especially frequent awakenings and reports of not feeling rested.

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Back pain, mechanical musculoskeletal problems, local soft tissue disorders

AB1070

VARIATIONS IN THE LENGTH OF MUSCULOSKELETAL TEMPORARY WORK DISABILITIES IN PATIENTS INCLUDED IN AN EARLY INTERVENTION PROGRAM

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Background: Musculoskeletal disorders cause in Spain 23% of temporary work disability (TD) and they are the first cause of permanent work disability (PD). A study of early intervention (early assessment and immediate treatment by a rheumatologist) reduced TD days (39%) and evolution to PD (50%)¹. Using the "Fit for Work" European coalition led by AbbVie, the program is implemented nationwide.

Objectives: The aim of this study is to analyse the variation in the number of days of sick leave in the patients included in an early intervention program comparing to usual average.

Methods: Observational cross-sectional study of a hospital cohort of outpatients referred during 18 consecutive months. The patients were referred for the first time to the Rheumatology Early Intervention consultation program because of temporary work disabilities due to musculoskeletal disorders. All of them received medical treatment; and underwent joints ultrasound, joint injections and learned exercises when needed. Patients whose disabilities were due to trauma or surgery were not included in the study.

Results: We evaluated 270 patients with a mean age of 48.9 years. 64% were women. The most frequently reported diseases were lumbar/sciatic pain (28.5%), shoulder pain (20%), neck pain (8%), knee pain (5.6%) and other arthralgias and tendinopathies (20%).

All patients received medical treatment, 38.5% underwent ultrasound examination and 19.2% received joint injections.

The pathologies with longest lengths of TD after the first visit to the rheumatologist were lumbar/sciatic pain (mean 40.6 days), neck pain (mean 33 days) and shoulder pain (mean 23.8 days). If we compare this data with the existent control group from San Carlos Hospital (Madrid), we can see a decrease of the days in sick leave of 29.5% in lumbar/sciatic pain (from 57.6 to 40.6 days), 11.7% in neck pain (from 37.4 to 33 days) and 36.3% in shoulder pain (from 37.4 to 23.8 days).

Conclusions: Early intervention by rheumatologists in patients with temporary work disability due to musculoskeletal disorders reduces the length of sick leaves. A quick diagnosis and assessment by specialists can improve the patient outcomes saving costs to health system.

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AB1071

WHAT FACTORS AFFECT THE EFFECTIVENESS OF NSAIDS FOR ACUTE LOW BACK PAIN?

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Background: Nonsteroidal anti-inflammatory drugs (NSAID) are the main instruments for acute LBP (LOW BACK PAIN) treatment. However, up to now, factors that influence the effectiveness of NSAIDs have not been determined fully.

Objectives: To assess effects of some clinical and anamnestic factors on NSAIDs effectiveness in acute LBP.

Methods: The study group comprised 2078 patients (46.3±13.4 years, women 56.6%) with acute LBP treated in real clinical practice. 34.8% had first episode of LBP, 65.2% had second episode (an average of 2.6±1.4 episodes a year). Numerical rating scale (NRS) of 0–10 points estimated the level of pain. Initially, the pain level was 6.69±1.65, 57.0% of patients had severe pain (≥ 7 NRS). Pain remained at rest in 32.0%, at night in 19.0%, stiffness was noted in 60.7%, radiating leg pain in 28.2%, sciatica at 9.6%. NSAIDs used 70.2% of patients in the history of LBP, 28.0% rated their effectiveness as good, 54.6% as moderate and 17.4% as low. Meloxicam 15 mg once daily was prescribed for a period of up to 2 weeks for all the patients. 86.1% of patients received meloxicam intramuscular injection (i/m) for 2 days, then per os, 13.9% only per os. 52.3% received muscle relaxants, 17.4% – B vitamins, per os or i/m. 21.6% of patients received PPI for the prevention of gastrointestinal complications. The study evaluated the frequency of LBP complete relief with NSAIDs for up to 2 weeks.

Results: The complete pain relief was in 75.2% of patients, the average NSAID use duration before pain ceased was 8.6±5.5 days. 83.7% of patients rated the effect of treatment as "good" or "excellent." Adverse reactions were noted only in 4.6% of patients, there were no serious complications. Female sex and the use of B vitamins did not influence the outcome of the treatment: odds ratio (OR, 95% confidential interval) 0.967 (0.795–1.177), $p=0.763$ and 0.917 (0.804–1.1201), $p=0.452$. Age <65 years, the first episode of LBP and a good effect of NSAIDs in a history were associated with the best result of treatment: OR 2.053 (1.592–2.642), $p=0.000$; 1.415 (1.09–1.836), $p=0.009$; 1.937 (1.513–2.481), $p=0.000$. Severe pain (≥ 7 NRS), pain at rest and at night, radiating leg pain and especially sciatica were associated with worse results: OR 0.599 (0.487–0.737), $p=0.000$; 0.481 (0.393–0.588), $p=0.000$; 0.559 (0.441–0.709), $p=0.000$; 0.511 (0.413–0.631), $p=0.000$; 0.346 (0.256–0.466), $p=0.000$. The combination of NSAIDs and muscle relaxants, in comparison with the monotherapy of NSAIDs, was associated with a lower incidence of pain: OR 0.827 (0.594–0.889), $p=0.02$.

Conclusions: Meloxicam 15 mg/day dosage is effective and safe for treating acute LBP. The sex of patients does not affect the outcome of treatment. Age <65 years, first episode of LBP and a good "response" to NSAIDs in history are associated with better treatment outcomes. Severe pain, the pain at rest and pain at night, radiating leg pain and sciatica are associated with the worst result. The combination of NSAIDs with muscle relaxants and B vitamins did not improve the outcome of the treatment.

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AB1072

THE MEDIAN NERVE CROSS-SECTIONAL AREA MAY BE A PARAMETER OF FOLLOW- UP AFTER TREATMENT IN PATIENTS WITH CARPAL TUNNEL SYNDROME?

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Objectives: Carpal tunnel syndrome (CTS) is the most common entrapment neuropathy in general population. Diagnosis of CTS depends on clinical symptoms, physical examination and electrophysiological findings. In recent years, diagnostic value of median nerve ultrasonography has increased particularly for the CTS. To aim of this study compare the electrophysiological and ultrasonographic findings at CTS patients who treated with splinting at night during three months.

Methods: The patients, who were diagnosed with mild or moderate CTS, received a fabricated night orthotic which held the wrist in a neutral position during three months. All patients were evaluated clinically, electrophysiologically, and ultrasonographically before treatment and at 3 months by blind physicians. Pain was evaluated using Visual Analogue Scale (VAS) Boston Carpal Tunnel Questionnaire was used to evaluate symptom severity and functional capacity. In electrophysiologic evaluation median nerve conduction studies was recorded. Median nerve cross-sectional areas (M-CSA) were measured by ultrasonography at the level of radio-ulnar joint, pisiform bone, and hook of hamate. After treatment, 68

patients were divided into two groups according to whether there was a 50% reduction in VAS.

Results: The study was completed with 68 patients and 114 hands. While in group 1, in which VAS reduction was less than 50%, there were 38 hands; in group 2, in which VAS reduction was more than 50%, there were 76 hands. There were no differences improvement of symptom severity, nerve conduction studies parameters, M-CSA at the level of radio-ular joint between groups. Improvement of functional capacity and decrease of M-CSA at the level of pisiform bone and hook of hamate were significantly better in group 2 ($p < 0.05$).

Conclusions: After conservative treatment, while M-CSA was consistent with clinical findings, this consistency has not been observed with nerve conduction studies. M-CSA may be used to follow-up after receiving conservative treatment in patient with CTS.

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AB1073 THE EFFECTS OF LYMPHEDEMA SEVERITY ON DYNAMIC SCAPULAR CONTROL

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Background: Women with mastectomy are reported to have altered dynamic scapular control compared to the asymptomatic healthy individuals. However, the effects of breast cancer related lymphedema (LE) on scapular control has not been fully understood yet.^{1,2}

Objectives: The aim of this study was to determine the impact of LE severity on scapular kinematics in breast cancer patients with moderate LE, severe LE and without LE.

Methods: 67 women who have undergone radical or modified radical mastectomy as part of the breast cancer treatment were included in the study. The study was approved by the local ethics committee of the university and all participants provided written informed consent. Individual's demographic and medical characteristics were recorded. By volumetric measurement, women were divided into 3 groups. Between the affected and non-affected extremities; the non-LE group (group 1, $n=22$) had 0 and 200cc difference, the moderate LE group (group 2, $n=18$) had 250–500cc difference, and the severe LE group (group 3, $n=27$) had a difference of 500cc or more. 3-D analysis of the scapula was performed during the bilateral upper extremity elevation in the scapular plane with the 3D Motion Monitor-Electromagnetic System. Scapular kinematics in the scapular plane were recorded at 30°, 60° and 90° (during elevation and lowering phases) of the arm elevation in the affected side. Each measurement was repeated 3 times and the mean of 3 repetitions were recorded. Patient characteristics and scapular kinematics were analysed by Kruskal Wallis test and two-way repeated measures of ANOVA test, respectively.

Results: There was no significant difference between groups in terms of age (mean ages; group 1: 45.54±5.88, group 2: 52.05±6.63, group 3: 56.37±8.24 years) ($p=0.08$). Regarding the Body Mass Index (BMI) (group 1: 25.57±2.92, group 2: 25.95±2.35, group 3: 28.93±1.02 kg/m²), it was found that group 3 had higher BMI scores than group 1 and 2 ($p < 0.001$). The duration of LE (group 2: 22.38±23.1, group 3: 42.29±31.85 months) was higher in group 3 than the group 2 ($p=0.004$). There were significant interactions for scapular upward rotation between groups ($F_{4,11, 131.51} = 3.09, p=0.015$). It was observed that group 1 had higher scapular upward rotation at 60° and 30° of the lowering phase of the arm elevation trials than group 3 ($p=0.013, p=0.004$). There was no significant interaction in terms of the scapular internal rotation ($F_{4,37, 139.9} = 0.59, p > 0.05$) and posterior tilt ($F_{5,05, 161.8} = 1.02, p=0.4$) among groups during the arm elevation in scapular plane.

Conclusions: The results of this study revealed that scapular upward rotation could be reduced by LE severity. LE severity might also be associated with BMI and LE duration. Further studies comparing LE patients with healthy individuals are needed to better understand the effects of LE severity on scapular kinematics.

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AB1074 IN DEGENERATIVE SPINE DISEASE REGULAR SHORT COURSES OF NSAIDS USE ARE ASSOCIATED WITH GREATER KIDNEY INJURY, COMPARED WITH CONTINUOUS NSAIDS INTAKE AND WITH ABSENCE OF NSAIDS TREATMENT

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Background: Nephrotoxicity in short-term or continuous NSAIDs administration is well-known problem of anti-inflammatory treatment. However, data about kidney injury in case of repeated short-term courses of NSAIDs treatment are limited. **Objectives:** of the present study was to evaluate the kidney functions in patients with degenerative spine disease (DSD), taking NSAIDs in repeated short courses, compared with kidney function of patients with constant NSAIDs intake and to the healthy individuals.

Methods: The study included 137 patients, taking NSAIDs for DSD. 97 patients used NSAIDs in repeated short-term courses (3–5 courses per year, 7–14 days each course). 40 patients had continuous NSAIDs intake (5 and more days per week during the 1 year before the study). In the control group were involved healthy persons, did not treated with NSAIDs during the last year ($n=40$). Controls were sex- and age-matched with the DSD patients. Glomerular filtration rate (GFR) was calculated using CKD-EPI calculator. Albumin, α 1-microglobulin and creatinine levels of urea were measured; albumin/creatinine and α 1-microglobulin/creatinine ratios were calculated.

Results: Kidney function in DSD patients with NSAIDs intake and in healthy controls are presented in table 1.

Abstract AB1074 – Table 1. Kidney function in patients with short-term and continuous NSAIDs use and in healthy controls

Kidney function parameter	NSAIDs short courses, n=97	NSAIDs continuous intake, n=40	Controls, n=40
GFR, ml/min/1.73 m ²	77.5 [68.0; 89.0]	86 [68.0; 92.2]	82.5 [70.8; 90]
Albumin/creatinine, mg/g	57.1 [33.8; 82.4]*#	32 [21.0; 44.4]*	25.0 [17.5; 32.9]
α 1-microglobulin/creatinine, mg/g	134.7 [77.5; 197.7]*#	66.0 [41.0; 112.3]*	12.9 [0.5; 18.1]

* $p < 0.000$ for the difference with controls; # – $p < 0.000$ for the difference with NSAIDs' continuous intake.

In patients with DSD and short NSAIDs' use a decrease in GFR of less than 90 ml/min/1.73 m² was evaluated in 61 (62.9%) of cases, GFR less than 60 ml/min/1.73 m² was detected in 11 (11.3%) patients. In patients with DSD and continuous NSAIDs use a decrease in GFR of less than 90 ml/min/1.73 m² was evaluated in 34 (85%) of cases, GFR less than 60 ml/min/1.73 m² was detected in 2 (12.5%) patients, $p < 0.01$, compared with controls and $p \geq 0.05$ compared with short-term use. GFR less than 60 ml/min/1.73 m² was found in 11 (11.3%) patients with DSD and short NSAIDs intake and in 0 (0%) of healthy volunteers ($p=0.026$). Albumin/creatinine ratio ≥ 30 mg/g was found in 74 (76.3%) patients with DSD with short-term NSAIDs use, in 22 (55%) patients with constant NSAIDs intake, and 9 (22.5%) healthy individuals ($p < 0.01$ for all intergroup differences). An increased level of microglobulin/creatinine ratio was found in 66% patients with DSD (in 82.4% cases of short-term and in 25% of continuous NSAIDs use, $p < 0.01$) and in 3 (7.5%) healthy individuals, $p < 0.0001$.

Conclusions: Decrease of the GFR less than 60 ml/min/1.73 m² and subclinical kidney injury in patients, treated with NSAIDs, was found frequently, than in healthy persons never treated with NSAIDs. The subclinical glomerular and tubular damage in patients with short-term courses of NSAIDs use exceeded glomerular and tubular changes in patients with constant NSAIDs use.

Disclosure of Interest: None declared

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AB1075 RELATIONSHIP OF SERUM CHOLECALCIFEROL (VITAMIN D3) LEVEL WITH MUSCULOSKELETAL SYMPTOMS

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Background: Patients suffering from generalised aches and pains, not adequately responding to treatment are usually considered as fibromyalgia, depression, chronic fatigue syndrome etc. But those patients need further