protocol; blood was centrifuged firstly at 1000 rpm for 10 minutes. The plasma was then transferred to a new glass tube and centrifuged at 3000 rpm for 15 minutes. Platelets will form a pellet at the bottom of the tube. Finally, a pure platelet rich plasma was obtained with a concentration 4 times greater than baseline. Ca gluconate was mixed with PRP (in a ratio of 0.3 ml ca gluconate/ml PRP) immediately before the injection. Under ultrasound guidance, 3ml PRP was injected slowly into the bursa without usage of local anesthetics prior to injection. Post injection, patients were advised to rest, use cold packs and were allowed to do light range of motion exercises 2–5 days post injection. Acetaminophen was allowed for intolerable post injection pain.

Results: Statistical analysis was made to 60 patients. Intragroup analysis showed statistical significant difference in both groups at follow up compared to baseline regarding clinical, functional and radiological data. Inter-group analysis showed more significant results in PRP group regarding clinical assessment ($p < 0.0001$), functional assessment (SPADI (PS, DS and total) and WORC scores ($p < 0.0001$) and sonographic assessment in (subscapularis tendinopathy, supraspinatus tendinopathy, supraspinatus fibrillar tendon disruption and supraspinatus tendon thickness) ($p < 0.0001$) and sonographic subacromial subdeltoid bursitis ($p = 0.001$).

Conclusion: Single PRP injection is an effective mean of treatment of RCT as it improves patients' quality of life clinically, functionally and structurally, better than traditional physical therapy program.

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THU0496

RESULTS OF AN EARLY INTERVENTION PROGRAM ON THE VARIATIONS IN THE LENGTH OF MUSCULOSKELETAL TEMPORARY WORK DISABILITIES

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Background: Musculoskeletal disorders cause in Spain 23% of temporary work disability (TD). They are the first cause of permanent work disability (PD). A study of early intervention by a rheumatologist reduced TD days reduced PD. Using the "Fit for Work" European coalition led by AbbVie, the program was implemented nationwide.

Objectives: To analyze the variation in the duration of sick leaves in patients referred to an early intervention program in relation to the delay on the referral from primary care and from the Occupational Health service of our hospital.

Methods: Cross-sectional observational study of a hospital cohort of patients referred for 34 consecutive months to the Rheumatology Early Intervention program due to TD due to musculoskeletal pathologies. Patients whose TD had a traumatic or surgical origin, or with incomplete information were excluded from the analysis. We created 4 groups of patients according to the time elapsed from the start of the TD until the referral to our office: 0 to 15 days, 15 to 30 days, 30-60 days or > 90 days. We compared the patients referred from primary care with those referred from occupational health.

Results: For the analysis we included 394 patients, 63.3% women, with a mean age ($\pm$ D.E.) of 48.5 ($\pm$ 9.8) years. We analyzed the most frequent pathologies: back pain (33.5%), shoulder pain (19.8%) and neck pain (8.4%). 85.8% came from primary care, 10.2% from occupational health and 4.1% from other units. The median time between referral and 1st consultation was 6 days. We found statistically significant differences in the total duration of TD among the patients referred to consultation in the first 30 days compared to those sent later in the 3 pathologies (decreasing the duration of TD between 50 and 100 days in low back pain, between 44 and 54 days in shoulder pain and between 13 and 20 days in neck pain). In back pain we found statistically significant differences in the duration of the TD after the 1st consultation, obtaining an average decrease in the duration of the TD between 42 and 52 days. In shoulder pain and neck pain an important decrease is observed without reaching statistical significance, probably related to the sample size.

Regarding the patients referred from occupational health, the median time between TD and referral was 2.5 days. The pathology most frequently evaluated was low back pain (60% of cases), finding statistically significant differences in the total duration of TD, with a mean decrease in the duration of TD of 59 days compared to the general population.

Abstract THU0496 – Figure 1

Conclusion: Early intervention by rheumatologists in patients with TD due to musculoskeletal disorders reduces the duration of the processes, saving costs to the health system.

Disclosure of Interests: None declared

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THU0497

THE EFFECT OF ADDITION OF BUFFERED DEXTROSE SOLUTION ON PAIN OCCURRING DURING LOCAL STEROID INJECTION FOR PLANTAR FASCIITIS

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Background: 5%dextrose water (D5W) has been previously reported to decrease pain when co-administered with noxious agents as chemotherapeutics and microspheres^(1,2). It has also been reported to have an immediate analgesic effect on low back pain and radiculopathy when injected epidurally³.

Objectives: To evaluate the potential immediate analgesic effect of D5W when added to the injectate during local steroid injection for treatment of plantar fasciitis.

Methods: In this single blind study, a total of 122 patients with plantar fasciitis were randomly assigned to receive either 40 mg triamcinolone acetonide/1ml + 0.5ml. lidocaine 2% (group A: 61 patients; 73 heels) or 40mg triamcinolone acetonide/1ml+0.5ml. lidocaine2%+ 0.5ml. buffered D5W (group B: 61 patients; 69 heels) as a local injection using the medial approach. Clinical assessment including disease duration, BMI, history of previous injection and post-injection complications and 2week recurrence rate was performed. Plain X-ray lateral view on the painful heel was obtained for diagnosis of associating calcaneal spur. Visual analogue scale (VAS 0-10) was used to assess the degree of pain intensity during injection.

Results: There were no significant difference between both groups regarding age, sex or BMI where the mean for age was 42.56 years in group A and 43.39 years in group B ($P = 0.86$), the male to female ratio was 16:45 in both groups and the mean for BMI was 31.49 in group A and 30.86 in group B ($P=0.51$). The mean disease duration was 6.02 months in group A and 10.77 months in group B ($P=0.005$). Calcaneal spur was diagnosed in 60 patients (82%) in group A and in 47 patients (68%) in group B. A highly significant difference in VAS was observed as the mean was 8.26 ± 2.00 in group A and 4.25 ± 2.05 in group B ($P < 0.0001$) with a confidence interval (95% CI) of 7.78 -8.74 for group A and 3.76 - 4.72 for group B. On 2 week follow up, only 4 patients in each group reported a recurrent heel pain. No injection related side effects or complications have been reported.

Conclusion: The addition of 0.5 ml. D5W can significantly decrease the pain associated with local steroid injection for treatment of plantar fasciitis.

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THU0498

PAIN RELIEF AND GAIN OF FUNCTION FROM LOW DOSE RADIOTHERAPY FOR EPICONDYLITIS, FINGER OSTEOARTHRITIS AND PLANTAR FASCIITIS – RESULTS OF A PROSPECTIVE CLINICAL TRIAL

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Background: Low dose radiotherapy (LDRT) is an effective treatment for therapy-resistant musculoskeletal disorders that is associated with only minimal toxicities and low costs [1]. As the population in many countries ages and such disorders result in significant impairment in quality of life and costs, there is now a wider international interest in LDRT for these conditions [2]. Numerous retrospective series describe the benefits of LDRT for non-malignant joint disorders, with response rates between 63–89% [3], but randomized and prospective data are scarce, [4, 5, 6].

Objectives: To prospectively evaluate pain, function and quality of life after low dose radiotherapy (LDRT) in patients with lateral and medial epicondylitis (LE and ME), finger osteoarthritis (OA) and plantar fasciitis (PIF).

Methods: Patients over 40 years old were recruited to this single center trial. LDRT (8 x 0.5 Gy, 200 kV X-rays) was repeated once up to a total dose of 8.0 Gy. Pain scores (visual analogue scale=VAS), function tests and quality of life questionnaires were documented at 0, 2, 6, and 12 months.

Results: 204 sites were treated. At 12 months after last LDRT (first or second course) compared with baseline prior to first LDRT: 39 LE sites reported pain reduction (median change in VAS) at rest (-2.5, p<0.001), during activity (-6.0, p<0.001) and increase in handgrip strength (median change: extension 16 kg, p<0.001, flexion 5.2 kg, p=0.002). 10 ME sites showed pain relief at rest (-3.0, p=0.041), during activity (-0.4, p=0.041) and an increase in handgrip strength (6.5 kg, p=0.022). 99 finger OA sites reported significant pain relief during activity (-3.0, p<0.001) with a trend at rest (0.0, p=0.056) and gain in handgrip strength (2.5 kg, p=0.004) with a trend to stronger pinch grip (0.5 kg, p=0.099). 56 PIF sites reported reduction in pain scores at rest (-4.0, p<0.001), during activity (-6.0, p<0.001) and an improvement in the walking test (-5.0 seconds, p<0.001). A trend towards improved quality of life was seen in patients with ME and PIF.

Conclusion: Patients with LE and ME, finger OA and PIF achieved sustained analgesia and an objective improvement in musculoskeletal function 12 months after completion of LDRT with 4-8 Gy.

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THU0499

RISK FACTORS FOR SHOULDER PAIN PERSISTENCE IN ROTATOR CUFF DISORDERS

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Background: A large proportion of patients with atraumatic painful shoulder have an unfavorable outcome with long-term disability (1). Predictors of no recovery in patients with shoulder disorders were identified previously: repetitive overhead activity in sport and work (2) duration of complaints, somatization, low social support, older age, unemployment, musculoskeletal comorbidity, recurrent complaint (3,4).

Objectives: To identify the risk factors for over 6 month pain persistence in patients with rotator cuff disorders

Methods: Our prospective study included 51 hospitalized patients with atraumatic shoulder pain. The assessment was clinical and shoulder MRI for confirmation of rotator cuff disorders. We have studied the influence of the patient's characteristics and the influence of the condition's characteristics for pain persistence. Statistical analysis was performed in SPSS-18, p<0.05 was significant.

Results: No significant correlations were found between pain persistence and age, gender, smoking status, occupational overuse, physical demands before the onset of pain, marital status, continuous pain, lesions on shoulder MRI. The association with the following elements is statistically significant for pain persistence: opposite shoulder previously affected (p=0.01), diabetes mellitus (p=0.04), insidious onset (p=0.004), the high educational level (p=0.02), physical therapy (p=0.03), local injection (p=0.08). Using multinomial regression we observed only acute onset of the pain shoulder (RR=7.1) and physiotherapy treatment (RR=0.1) with p=0.026.

Conclusion: The factors that determine the shoulder pain persistence are non-specific and can be sometimes psychosocial, local, physical or other comorbidities like diabetes.

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THU0500

PELVIC CONGESTION SYNDROME, UNCOMMON CAUSE OF LOW BACK PAIN

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Background: The pelvic congestion syndrome (PCS) is an under and often misdiagnosed entity that appears more frequently in premenopausal age and multiparous women. The pathophysiology consists of a sum of phenomena including venous stasis and inversion of the pelvic venous flow that cause varicose veins and congestion. The left ovarian vein is usually the most affected. Typically it presents as a dull, chronic abdominal-pelvic (AP) pain, which worsens with menstruation and prolonged