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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

standing, and lasts longer than six months. Pain is associated with dyspareunia and varicosities in lower limbs (LL) and genitals. It is challenging and important to consider atypical clinical presentations that simulate osteoarticular (OA) pathologies. It is usually diagnosed by Angio-CT, and a safe, definitive and successful treatment is the embolization of the affected vein.

Objectives: The objective of this study was to evaluate the characteristics of those patients diagnosed with PCS in our University hospital from January 2014 to May 2018, paying close attention to the atypical forms of presentation that simulate OA pathology.

Methods: We included all patients from our center who were operated by embolization due to a PCS from January 2014 to May 2018. Socio-demographic variables, forms of presentation, pain characteristics, associated symptoms, patient management and outcome data were collected.

Results: Sixty women were included with a mean age of 43 years at diagnosis, 87% (n=52) were multiparous, with a mean of 2 previous pregnancies. In 95% (57) of all cases the duration of symptoms until the diagnosis exceeded 6 months. Patients were classified according to presence and location of pain in 4 groups: 1. Women with AP pain, 23% (14); 2. Women with OA pain 5% (3); 3. Women with mixed AP and OA pain, 59% (35); and 4. Women with other symptoms 13% (8). Regarding patients from groups 2 and 3 (only OA pain or mixed pain) (38), 90% (34) of them presented low back pain, 53% (20) hip pain and 40% (15) sciatic pain. Only 5% (3) of all patients were evaluated by a rheumatologist.

As for the pain characteristics from groups 1, 2 and 3 (52), in 72% (37) of patients it was diurnal, in 48% (25) it worsened with menstruation, in 62% (32) it worsened with prolonged standing and in 35% (18) it worsened at rest. Among the associated manifestations, stand out the presence of LL varicose veins in 74% (38) of patients, genital varicosities in 58% (30), dyspareunia in 42% (22), dysmenorrhea in 40% (21), hemorrhoids in 37% (19) and dysuria in 18% (9). All patients underwent embolization of the affected vein, with an initial Visual Analogue Scale (VAS) mean of 7.38 over 10, and final VAS mean of 2.63. The mean recovery time was 36 days. The evolution was good or very good in 84% (32) of patients with mixed (AP and OA) pain and in 57% (8) of those who only had AP pain. Less than 2% (1) had a recurrence without the need for reoperation.

Conclusion: PCS is a rare entity, typically associated with long lasting AP pain, but, in more than half the cases, is accompanied with OA symptoms, mainly low back pain. It is important and challenging for the rheumatologist to identify these patients, since treatment is usually safe and effective, and diagnostic delay worsens their quality of life.

Disclosure of Interests: None declared

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27. BACK PAIN, MECHANICAL MUSCULOSKELETAL PROBLEMS, LOCAL SOFT TISSUE DISORDERS

THU0501 MUSCULOSKELETAL DISORDERS IN TYPE 1 AND 2 DIABETIC PATIENTS: PREVALENCE AND ASSOCIATION WITH MICROVASCULAR COMPLICATIONS OF DIABETE

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Background: Diabetes mellitus (DM), a worldwide high prevalence disease, is associated with a large variety of musculoskeletal (MS) disorders. They are poorly treated, as compared to microvascular complications. However, they are a common source of disability.

Objectives: We designed this study to assess the prevalence of MS disorders among diabetic patients and their relation to microvascular complications of diabetes.

Methods: A cross-sectional study enrolled consecutive subjects with diabetes seen in the Endocrinology department. We recorded age of patients, sex, body mass index, type and duration of diabetes, Long-term glycemic control assessed by hemoglobin A1c levels, and lipid profile. Musculoskeletal and microvascular disorders assessment was done by detailed history with clinical examinations and investigations if needed.

Results: A total of 376 subjects were studied, (84.6% had type 2 diabetes). The mean age was 52.5±13.9 years, 41% had one or more

microvascular complications, among which retinopathy was present in 28.2%, nephropathy in 16.1% and neuropathy in 12.8%. Moreover, 23.4% of the patients had one or more musculoskeletal disorders. Shoulder capsulitis was present in 12.5%; carpal tunnel syndrome in 8.8%; trigger finger in 5.9%; and 2.9% had diabetic cheiroarthropathy. Dupuytren's contracture and Charcot foot, were found in 0.5% and 0.3% of the cases respectively. Symptomatic osteoarthritis was found in 19.4%. Musculoskeletal disorders prevalence increased with age, diabetes duration, presence of dyslipidemia and various microvascular complications.

Abstract THU0460 –Table 1. Distribution of cases according to MS disorders in relation to type of diabetes

MS disorders	Type of diabetes					Total N =376	
	Type 1 N = 58		Type 2 N = 318		P		
	No.	%	No.	%	%	No.	%
Osteoarthritis	2	3.4	71	22.3	0.001*	73	14.9
Shoulder capsulitis	2	3.4	45	14.2	0.023*	47	12.5
Carpel Tunnel Syndrome	5	8.6	28	8.8	0.969	33	8.8
Limited joint mobility	0	0	11	3.5	0.151	11	2.9
Trigger Finger	2	3.4	20	6.3	0.397	22	5.9
Dupuytren's contracture	0	0	2	0.6	0.545	2	0.5
Charcot's Foot	1	1.7	0	0	0.154	1	0.3
Total MS disorders	10	17.2	78	24.5	0.149	88	23.4

Conclusion: this study shows a high prevalence of musculoskeletal disorders in diabetic's patients which were significantly associated with advanced age, longer duration of diabetes, presence of dyslipidemia and microvascular complications.

Disclosure of Interests: : None declared

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THU0502 DIFFERENTIAL DIAGNOSIS OF MONOARTHRITIS: THREE CASES WITH PIGMENTED VILLONODULAR SYNOVITIS

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Background: Pigmented Villonodular Synovitis (PVNS) is a proliferative disorder of synovium that affects synovial joints, tendon sheaths and bursas. The estimated incidence is around 1.8 cases per million people in a population. PVNS is usually found in adults aged 20-50 years, but it may occur also in children. As it is a rare pathology in children, diagnosis is often delayed, and it is difficult to distinguish from Juvenile Idiopathic Arthritis (JIA), hemophilic arthropathy, tuberculosis, and other neoplastic processes.

Objectives: The aim of this case series is to emphasize PVNS in the differential diagnosis of monoarthritis, and the importance of interpretation of imaging, i.e. MRI.

Methods: Three pediatric PVNS cases who were misdiagnosed as monoarticular JIA and familial Mediterranean fever (FMF) are presented as case series.

Results: Case-1. A 14 year-old male had swelling and pain on his left knee for one year. An MRI of knee was reported as joint effusion in suprapatellar bursa, and he was referred to our clinic as monoarticular JIA. He was on methotrexate (MTX) 15 mg/m²/wk. SC, and despite effective treatment there was no improvement. MRI was performed by a pediatric radiologist who was an expert on musculoskeletal diseases. Joint effusion and a lesion compatible with PVNS were observed in left suprapatellar recess (Figure-A). Arthroscopic synovectomy was performed and histopathological result was PVNS.

Case-2: A one year-old female had swelling on her right knee for three months after a minor trauma. On physical examination, she had effusion of the right knee which was confirmed on USG. She was diagnosed as monoarticular JIA and intraarticular triamcinolone hexacetonide injection was performed. She was unresponsive to adequate non-steroid drug therapy, and MTX was started. Despite intensive therapy, there was no change. MRI showed focal lesions with high signal in T2 weighted images in suprapatellar and intraarticular areas, and findings were evaluated as compatible with PVNS (Figure-B). Total synovectomy was performed and PVNS was confirmed in pathological evaluation (Figure-C). she is in complete remission without treatment.