non-steroidal anti-inflammatory drugs, 20% had at least one local corticosteroid infiltration, 34% had functional rehabilitation and 4, 1% had surgical treatment.
Regarding sexual dysfunction, 34.5% of our patients didn't have any sexual activity, 2.1% had a catastrophic sexual life (score <20), 9% had a disappointing sexual life (score between 20 and 40), 20% had an average sexual life (score between 40 and 60), 17.9% had a satisfying sexual life (score between 60 and 80), while only 13.1% had a very fulfilling sexual life (score between 80 and 100. we showed that the alteration of the sexual quotient in our patients is more marked when the age of the patients is more advanced. But we didn't found a significant correlation with the duration of the disease, the mean visual analogue scale for pain and the functional scores of Quebec and Dallas.
Conclusions: Our study suggests that sexuality is profoundly disrupted in chronic low back pain. The advanced age is proved to be correlated with the deterioration of the sexual life. So, sexuality must be taken into account in the management of patients with chronic low back pain.
References:
[1] Kellie S.H. Kwan, Lindy J. Roberts, Delphin M. Swalm.
[1] Sexual dysfunction and chronic pain: the role of psychological variables and impact on quality of life.
[2] European Journal of Pain 9 (2005) 643–652.
[2] Ambler Nicholas, Williams Amanda, Hill Patrick, Gunary Rachel, Cratchley Gina.
[3] Difficultés sexuelles des patients douloureux chroniques.
[4] Clinical Journal of Pain 17 (2001) pp 138–145.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.5339

SAT0599 LOW BACK PAIN IN MEDICAL STUDENTS LINKED TO POOR SLEEP QUALITY: RESULTS FROM THE PAX-I STUDY

N.R. Ziade[1,2], F. Fayad[1], B. Badra[3]. [1]*Rheumatology, Hotel Dieu de France;* [2]*Rheumatology;* [3]*Medicine, St-Joseph University, Beirut, Lebanon*

Background: Low Back Pain (LBP) is a major public health problem and is classified by the Global Burden of Disease Study among the ten diseases most responsible for Disability-Adjusted Life Years worldwide. All ages may be affected, mostly young adults, with a prevalence going up to 50%. Medical students may be particularly vulnerable due to sedentary lifestyle and high stress levels.
Objectives: The primary objective is to evaluate the prevalence of LBP in Lebanese medical students. The secondary objective is to identify predictive factors associated with LBP and to identify prevalence and components of inflammatory back pain (IBP).
Methods: PAX-I is a cross-sectional study, completed at the St-Joseph University of Beirut from April to June 2016. All students from the first to the sixth year of medicine were invited to fill a questionnaire about their demographic data, lifestyle habits, Patient Health Questionnaire for Depression and Anxiety (PHQ4) and LBP characteristics, including components of IBP as per ASAS criteria. Student test and ANOVA were used for quantitative variables, chi-square test was used for qualitative variables and logistic regression was used for predictive factors for low back pain. Analysis were performed on IBM SPSS Statistics 23.
Results: Response rate was 51.3% (258/502). Mean age was 20.86 years (SD 1.92). 54.3% were female, 76.7% drank caffeine, 66.3% had a regular sports activity and 9.7% were smokers. 38% had the habit of walking while studying. All habits were similar across years of studying except for sports activities which decreased over the years (p 0.018). 80% were satisfied with their studies. Only 46% were satisfied with their quality of sleep. Mean PHQ4 score was 7.17 and increased with the years of studies (p 0.045).
55.8% of students reported a LBP event during the past year, with a mean number of 3.6 episodes per year. 91% of these students had LBP while studying, with high reported intensity (5.18/10), 62.5% reported LBP after exercise. 80% had episodes of less than one month and 7% of more than three months duration. 12% had IBP according to the ASAS criteria (Details of IBP in Figure 1). Predictive factors for LBP in univariate analysis were: smoking (p 0.040), alcohol consumption (p 0.005), caffeine consumption (p 0.041), television watching (p 0.042) –positive association-, and number of hours of sleep (p 0.011) and satisfaction with sleep quality–negative association- (p 0.017). Satisfaction with sleep quality remained the only significant association in multivariate analysis (p 0.014).

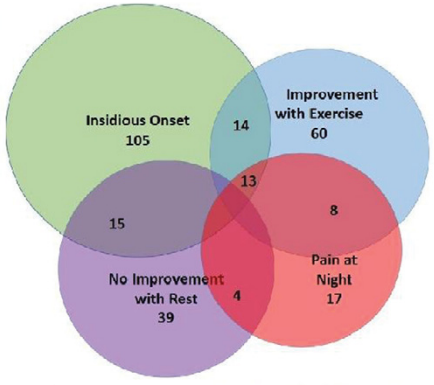

Figure 1. Components of Inflammatory Back Pain according to the ASAS criteria.

Conclusions: LBP is a frequent problem among medical students with high intensity, especially when studying, and a high recurrence rate. The main predictive factor was poor satisfaction with sleep quality. A significant percentage fulfills IBP criteria by auto-questionnaire and should benefit from further investigation.
References:
[1] Hoy D et al. The global burden of low back pain: estimates from the Global Burden of Disease 2010 study. Ann Rheum Dis 2014;968–74.
[2] Sieper J et al. New criteria for inflammatory back pain in patients with chronic back pain: a real patient exercise by experts from the Assessment of SpondyloArthritis International Society (ASAS). Ann Rheum Dis 2009;68:784–8.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.3025

SAT0600 USEFULNESS OF VERTEBROPLASTY IN VERTEBRAL FRACTURES WITH PERSISTANT BACK PAIN. A REPORT OF 64 VERTEBRAL AUGMENTATION FROM A UNIVERSITY HOSPITAL

O. Fernandez-Berrizbeitia[1], M. González-de-Garay-Sanzo[2], A. López-Medina[2], M. García-Vivar[1], E. Ruíz-Lucea[1], I. Torre-Salaberri[1], A. Intxaurbe-Pellejero[1], J. Blanco-Madrigal[1], E. Guerrero-Basterretxea[1], I. Calvo-Zorrilla[1], O. Ibarguengoitia-Barrena[1], C. Pérez-Velásquez[1], L. Estopiñán-Fortea[1], C. Gómez-Arango[1], N. Rivera-García[1], M. Allande-López-Linares[1], A. Bilbao-González[3], E. Galíndez-Aguirregoikoa[1]. [1]*Rheumatology;* [2]*Radiodiagnostic;* [3]*Research, Basurto University Hospital, Bilbao, Spain*

Background: Management options for patients with persistent back pain after a vertebral fracture include vertebral augmentation, but its use is controversial.
Objectives: Our iam was to evaluate the fracture cause, efficacy and complications of consecutive vertebroplasties performed in our Hospital in a 12 years period.
Methods: Retrospective study of vertebroplasties performed at a University Hospital in the last 12 years (April 2004 to April 2016). The duration of follow-up was more than 12 months. Epidemiological variables, indications, time elapsed, efficacy and complications of the procedure were collected. The indication of vertebroplasties in fractures was pain refractory to usual symptomatic treatment in these pathologies: osteoporosis, trauma, leukemia/lymphoma, metastasis and hemangioma. Efficacy was assessed at 6 and 12 months with a simple verbal scale according to the pain response (improvement/non-improvement). Patients who died before 12 months period were excluded for the that parameter. A comparative study of the efficacy between a)cause of fracture, b)location, c)time elapsed, d)access route and e)complication was performed. For the descriptive analysis we used frequencies and percentages in the case of qualitative variables, and mean and standard deviation (SD) or median and interquartile range for quantitative variables. Chi-square test or Fisher's exact test was used in for qualitative variables, and Wilcoxon's non-parametric test for evolution time. Statistic analysis was performed with the SAS System for Windows V 9.2.
Results: 66 vertebroplasties were performed in 44 patients (75% female/25%

FRACTURE CAUSE, n(%)	
Osteoporosis	50 (78.13)
Trauma	6 (9.38)
Lymphoma/leukemia, n (%)	5 (7.81)
Metastasis	2 (3.13)
Hemangioma	1 (1.56)
FRACTURE LEVEL, n(%)	
Lumbar	25 (39.06)
Dorsal	37 (57.81)
Cervical	2 (3.13)
VERTEBROPLASTY ACCESS ROUT, n(%)	
Unipedicular	15 (23.44)
Bipedicular	44 (68.75)
Parapedicular	2 (3.13)
Spine-Jack	1 (1.56)
Anterior	2 (3.13)
CEMENT LEAKAGE, n(%)	
No	38 (59.38)
Mild	20 (31.25)
Moderate	5 (7.81)
Severe	1 (1.56)
REFRACTURE, n(%)	
No	56 (87.5)
Yes	8 (12.5)
EFFICACY AT 6 MONTHS/12 MONTHS, n(%)	
Improvement	38 (59.38)/43 (75.44)
Lack of improvement	26 (40.63)/14 (24.56)

male). Their mean age was 70.63±10.60 years (range, 46–96 years). The description of the causes of fracture, its level, the access route and the cement leaks are expressed in TABLE. The median time from fracture to vertebroplasty was 3 months [1–6]. 78% of the fractures were osteoporotic and had a better response to pain at 6 months than all other fractures ($p<0.05$), although at 12 months there were no differences ($p=0.42$). Only 12.5% had refracture. Pain control and vertebral refracture did not differ between neither the access rout nor the cement leakage and its magnitude. In the 12-month follow-up, 7 patients died (6 due to neoplasia, 1 due to sudden death) and no case was related to vertebroplasty.

Conclusions: In our experience vertebroplasty has been shown to be an effective technique for the control of refractory pain in vertebral fractures regardless of cause and time of evolution. Likewise, only 12.5% presented refracture in the following 12 months to the procedure. According to our study we can consider vertebroplasty as an effective and safe alternative in this type of patients.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.3543

SAT0601 TREATMENT OF CARPAL TUNNEL SYNDROME (CTS) WITH ESWT: A SHAM CONTROLLED DOUBLE BLINDED RANDOMISED STUDY

Ö. Karataş[1], S. Catal[2], E.A. Gökmen[3], N. Samanci[4]. *[1]Physical Medicine and Rehabilitation, Korkuteli Public Hospital; [2]Physical Medicine and Rehabilitation, Akdeniz University School of Medicine; [3]Physical Medicine and Rehabilitation, Antalya Training and Research Hospita; [4]Physical Medicine and Rehabilitation, Akdeniz University School of Medicine, Antalya, Turkey*

Background: The carpal tunnel syndrome (CTS) is the most common neuropathy (1). The etiology isn't properly known, but CTS is produced by the chronic compression of median nerve while passing through carpal canal can be associated with this disease (2).

Objectives: The aim of this study was to investigate the efficiency of extracorporeal shockwave therapy (ESWT) in the treatment of CTS.

Methods: 49 hand with the diagnosis of CTS were included in the study. Patients were randomised in ESWT (n=29 hands) and sham (n=20 hands) groups. Patients were randomly allocated to receive 1 session per week for 3 weeks of either sham or active ESWT. All patients were prescribed with tendon and nerve gliding exercises and hand-wrist splint which used night. Patients were evaluated before the treatment, and at the end of the first week, first month and third month after the last ESWT treatment session with Boston Scale (symptom severity and functional capacity), Visual Analogue Scale (VAS) for pain and paresthesia assessment, for muscle strength hand gross grasp and electroneurophysiological parameters.

Results: A total of 38 patients completed the study with 29 wrists in active ESWT and 20 wrists in sham ESWT groups. Groups were similar in age, sex, duration of symptoms, hand gross grasp and electrodiagnostic parameters ($P>0.05$). In both groups, significant improvements were observed in VAS, Boston Scale and hand gross grasp after treatment. In both groups, there was no statistically significant improvement in electromyographic variables after treatment ($p>0.05$). However there was no significiant differrence between two groups in all of clinical and electrodiagnostic parameters.

Conclusions: Although ESWT was effective in symptoms in CTS but this efficacy isn't superior to placebo. Our results indicated that ESWT was effective in pain and clinical variables in CTS. Wider and high-quality studies are needed to further demonstrate the effectiveness of ESWT in treatment of CTS.

References:

[1] Ozturk K, Esenyel CZ, Sonmez M, et al: Comparison of carpal tunnel injection techniques: A cadaver study. Scand J Plast Reconstr Surg Hand Surg 2008;42:300–4.

[2] Gelberman RH, Hergenroeder PT, Hargens AR, Lunborg GN, Akeson WH. The carpal tunnel syndrome. A study of carpal canal pressures. J Bone Joint Surg Am 1981;63:380–3.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5363

SAT0602 MANAGEMENT OF EPICONDYLITIS WITH SINGLE LOCAL INJECTION OF SODIUM HYALURONATE

R. Petrella, A. Cogliano, A. Decruze. *Western University, London, Canada*

Background: Lateral elbow epicondylitis, also known as tennis elbow, is a common musculoskeletal condition causing pain and functional impairment in daily activities.[1] It affects between 40–50% of recreational tennis players at some time.[2] Sodium Hyaluronate (SH) is a natural biological substance which has proven to be effective to improve pain and function in osteoarthritic patients with low incidence of side effects.[3] Similarly, the administration of periarticular injections of SH can be an alternative approach to treat chronic epicondylitis.[4]

Objectives: To evaluate the efficacy and safety of a single periarticular injection with SH in the treatment of epicondylitis.

Methods: A single-site, and placebo-controlled trial was conducted in patients with chronic epicondylitis. Patients' condition was assessed at baseline and afterwards they were randomized 1:1 to receive a single 2.5ml injection of SH (manufactured by Tedec Meiji Farma SA) or placebo (saline) at the point of maximal pain at the lateral epicondyle. Additionally, standard of care (RICE: Rest, Ice, Compression and Elevation) was prescribed to both groups. Efficacy assessments were done at days 30 and 90 and included VAS (0–10cm) pain at rest and assessment of grip strength, patient global satisfaction, patient assessment of normal function and physician global assessment of elbow injury (all measured using 5-point categorical scale). Adverse events were recorded for safety purposes.

Results: A total of 60 patients were included and completed the study procedures. Both groups were homogeneous at baseline. A statistically significant reduction from baseline in VAS pain at rest and after grip testing was observed at 30 and 90 days in both treatment groups ($p<0.05$). Besides, inter-group comparison showed statistically significant differences in favour of SH group at 30 and 90 days ($p<0.05$). This was associated with significantly greater grip strength, patient global satisfaction and assessment of normal elbow function in SH group vs placebo ($p<0.05$). Improvement of elbow injury assessed by the physician was also statistically greater in patients treated with SH compared to placebo ($p<0.05$). No adverse events were recorded.

Conclusions: A single local injection of SH administered to patients with epicondylitis was significantly superior to placebo improving pain at rest and after grip testing, through all the study follow up period. The treatment was highly satisfactory for both physicians and patients and there were no safety concerns.

References:

[1] Chourasia AO, Buhr KA, Rabago DP, Kijowski R, Lee KS, Ryan MP, Grettie-Belling JM, Sesto ME. Relationships between biomechanics, tendon pathology, and function in individuals with lateral epicondylosis. J Orthop Sports Phys Ther. 2013 Jun;43(6):368–78. doi:. 10.2519/jospt.2013.4411.

[2] Taylor SA, Hannafin JA. Evaluation and management of elbow tendinopathy. Sports Health 2012; 4(5): 384–93.

[3] Bannuru RR, Schmid CH, Kent DM, Vaysbrot EE, Wong JB, McAlindon TE. Comparative Effectiveness of Pharmacologic Interventions for Knee Osteoarthritis: A Systematic Review and Network Meta-analysis. Ann Intern Med 2015; 162(1): 46–54.

[4] Petrella RJ, Cogliano A, Decaria J, Mohamed N, Lee R. Management of tennis elbow with sodium hyaluronate periarticular injections. Sports Med Arthrosc Rehabil Ther Technol 2010; 2:4.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2986

SAT0603 AN INNOVATIVE TREATMENT MODALITY FOR ACUTE ILIO-TIBIAL BAND SYNDROME IN RUNNERS: LOCAL HYALURONATE + BOTULINUM TOXIN IN A PROSPECTIVE COHORT OF 45 ATHLETES

R. Petrella, A. Decruze, J. Decaria. *Western University, London, Canada*

Background: Iliotibial band syndrome (ITBS) is the most common cause of lateral knee pain in runners[1]. It is an overuse injury that results from repetitive friction of the iliotibial band (ITB) over the lateral femoral epicondyle. Initial treatment includes activity modification, nonsteroidal anti-inflammatory medication, taping, stretching exercise and in severe cases, a corticosteroid injection[2]. Treatment of symptoms and return to activity are variable and can be intractable.

Objectives: To evaluate the efficacy and safety on pain and return to activity of a single, local injection of ITBS with combination hyaluronate and Botulinum toxin in 45 runners.

Methods: 45 runners with at least grade 2 ITBS underwent baseline investigations including pain following symptom-limited treadmill running test during which pain was recorded on a visual analogue scale (VAS 0–10) every minute. Runners then had injection in the area where the iliotibial band crosses the lateral femoral condyle with 2.5 ml combination hyaluronate (750–1300 kDa) with 40 U Botulinum toxin. Additionally, standard of care (RICE: Rest, Ice, Compression and Elevation) and stretching was prescribed but participants were instructed not to use NSAIDS or taping. The same pain VAS measures as well as peak exercise time, patient global satisfaction and patient assessment of normal running function (all measured using 5-point categorical scale) were repeated after 2, 7, 14 and 30 days. The primary outcome was peak pain during symptom-limited treadmill running.

Adverse events were recorded for safety purposes.

Results: 45 consecutive runners with acute (within 7 days) ITBS were included and completed the study procedures. A statistically significant reduction from baseline in VAS peak treadmill exercise was observed at all time points ($p<0.05$). This was associated with significantly longer exercise time at 7, 14 and 30 days. Patient global satisfaction was increased progressively after 7, 14 and 30 days and assessment of normal running function was described in >75% at 14 days. No serious adverse were reported. 3 subjects described transient (<24 hours) weakness in knee extension and 2 subjects described mild pain at the time and location of injection.

Conclusions: A single local injection of combination hyaluronate + Botulinum toxin for ITBS in runners improved pain and exercise time with treadmill running by 7 days post treatment and continued to 30 days. This treatment was satisfactory to runners and resulted in few, limited adverse events.

References:

[1] Louw M, Deary C. The biomechanical variables involved in the aetiology of iliotibial band syndrome in distance runners - A systematic review of the literature. Phys Ther Sport. 2014 Feb;15(1):64–75.