further interest in investigation of any links between these conditions. Therefore, prevalence of FM in patients with painful knee OA is of considerable interest.
Objectives: The purpose of this study was to evaluate the prevalence of fibromyalgia (FM) in patients with painful knee OA.
Methods: The study involved 92 patients (63 females and 29 males) with painful knee OA[ACR 1986] Osteoarthritis Knee Criteria) with non-surgical management aged 59.4±14.3 (M±SD) yrs.[4] Radiographic findings for OA were classified according to Kellgren-Lawrence scale grading.[5] FM was diagnosed in these subjects if both [ACR 1990] and [2010] criteria were met.[5–6]
Results: FM was diagnosed in 21painful knee OA patients (22.83%). Among female patients FM was confirmed in 19 from 63 subjects (30.16%) compared to 2 from 29 male patients (6.90%). No relationship was found between the radiologic stage of the knee OA and FM prevalence in the investigated subjects.
Conclusions: FM prevalence is relatively high in painful knee OA patients, mostly female. Further studies investigating possible FM impact on pain modulation, functional disability and quality of life in painful knee OA are needed.

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Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.7383

AB1068 PAIN, FATIGUE AND FUNCTIONAL IMPAIRMENT IN FIBROMYALGIA PATIENTS MAY BE RIDUCED BY ADDING A CYCLE OF HYPERBARIC OXYGEN THERAPY (HBOT) TREATMENT

P. Sarzi-Puttini[1], R. Casale[2], A. Batticciotto[1], R. Talotta[1], M. Gerardi[1], I.F. Masala[3], F. Salaffi[4], F. Atzeni[5]. *[1]Rheumatology Unit, L. Sacco University Hospital, Milan; [2]Pain Rehabilitation Unit, Habilita Care and Research Rehabilitation Hospitals, Zingonia di Ciserano, Bergamo; [3]Orthopedic and Trauma Unit, Santissima Trinità Hospital, Cagliari; [4]Department of Rheumatology, Polytechnic University of the Marche Region, Ancona; [5]Rheumatology Unit, University of Messina, Messina, Italy*

Background: Fibromyalgia Syndrome (FM) is a persistent and debilitating disorder estimated to impair the quality of life of 2%–4% of the population. FM is an important representative example of central nervous system sensitisation and is associated with abnormal brain activity. The syndrome is still elusive and refractory. Hyperbaric oxygen therapy (HBOT) can rectify abnormal brain function underlying the symptoms of FM patients. Increasing oxygen concentration by HBOT may change the brain metabolism and glial function to rectify the FM-associated brain abnormal activity.[1]
Objectives: To evaluate the effect of HBOT on clinical symptoms in FM resistant to the usual pharmacological treatment
Methods: Thirty female patients, aged 21–67 years and diagnosed with FM at least 2 years earlier, and resistant to any pharmacological treatment were assigned to be added on with HBOT. The treated group patients were evaluated at baseline and after 10 and 20 HBOT sessions. Evaluations consisted of physical examination, including tender point count, extensive evaluation of quality of life. Study endpoints included assessments of pain (VAS), the FACIT Fatigue Scale which is a short, 13-item, that measures an individual's level of fatigue during their usual daily activities over the past week. A validated Italian version of the Fibromyalgia Impact Questionnaire (FIQ-R) was used to evaluate the level of functional impairment as weel as the FAS index which is a short and easy to complete self-administered index combining a set of questions relating to non-articular pain, fatigue and the quality of sleep that provides a single composite measure of disease activity ranging from 0 to 10. The HBOT protocol comprised 20 sessions, 3 days/week, 90 min, 100% oxygen at 2.5 ATA.
Results: The effect of the hyperbaric oxygen treatment on the clinical symptoms are summarised in table 1. HBOT treatments of treated group led to statistically significant improvements in the mean scores of pain and fatigue (FACIT) after 10 and 20 HBOT sessions (mean change of pain after 20 sessions −1.76±2.5, p<0.001) (mean change of fatigue after 20 sessions 5.93±2.10, p<0.001)The FIQ-R score significantly improved following HBOT in the treated group (mean change after 20 sessions −12.89±17.04, p=0.001). The FAS score showed a positive trend after 10 sessions and a significant improvement after 20 sessions (mean change −2.02±3.14, p=0.006).

Abstract AB1068 – Table 1. Clinical data at baseline and after HBOT treatment

	Baseline	Follow up (10 sessions)	Paired samples t-test	Follow up (20 sessions)	Paired samples t-test
VAS PAIN	8.11±1.81	6.84±2.07	p=0.0062	6.32±2.58	p=0.0023
FACIT	20.42 ±7.06	23.76±6.82	p=0.0836	26.36±8.25	p=0.0069
FIQ-R total score	68.04 ±3.90	59.83±4.41	p=0.0090	55.56±5.19	p=0.0019
FAS total score	8.14±0.47	7.07±0.50	p=0.0928	5.99±0.49	p=0.0065

Conclusions: These preliminary data show that HBOT may determine a significant clinical improvement in patients affected by FM and resistant to the common pharmacological treatment. However, further studies of large numbers of patients are required in order to confirm this preliminary finding and modify treatment strategies accordingly.

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Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.4900

AB1069 CHRONIC WIDESPREAD PAIN, SLEEP PROBLEMS AND PRESSURE PAIN THRESHOLDS IN A POPULATION SAMPLE

S. Bergman[1,2,3], E. Haglund[3,4], K. Ailli[3,5], C. Olsson[2], A. Bremander[1,3,4]. *[1]Department of Clinical Sciences, Section of Rheumatology, Lund University, Lund; [2]Primary Health Care Unit, Department of Public Health and Community Medicine, Institute of Medicine, The Sahlgrenska Academy, University of Gothenburg, Gothenburg; [3]RandD centre Spenshult; [4]School of Business, Technology and Science, Halmstad University, Halmstad; [5]Unit of occupational medicine, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden*

Background: Chronic musculoskeletal pain is common in the general population and 11% report chronic widespread pain (CWP). A sensitisation of the nociceptive system has been proposed to be one possible mechanism behind CWP, a prerequisite for fibromyalgia (FM). A reduced pressure pain threshold (PPT) has been reported in subjects with FM, but also as an effect of bad sleep.
Objectives: The aim was to study pain thresholds in people with CWP in comparison with those having no chronic pain (NCP) or chronic regional pain (CRP), but also in relation to self-reported sleep problems.
Methods: From a 21 year follow-up of the Swedish population based Epipain cohort (n 1321), 146 subjects, with and without a report of chronic pain, were invited to a clinical assessment including measurement of PPT. Subjects were classified as having NCP, CRP or CWP, according to the definition of CWP in the [ACR 1990] criteria for FM, based on a pain mannequin presenting 0–18 body regions. Sleep problems (initiating sleep, frequent awakenings, not feeling rested, early awakening) were reported by Uppsala Sleep Inventory (four items scored from 1–5, best to worst). PPTs were measured in kPa at eight different anatomical sites representing upper, lower, left and right side of the body using the AlgoMed Computerised Pressure Algometer FPIX (Medoc Ltd. Advanced Medical Systems, Israel). A mean was calculated from all eight points to create a global pressure pain threshold (PPTg), where a lower PPTg indicated a higher sensitivity to pain. ANCOVA regression analysis was performed to study associations between PPTg and reports of chronic pain and sleep problems, controlled for age and gender.
Results: Out of 146 subjects, 89 (61%) were women. Mean age was 64.6 (SD 12.7) years. This sub-population from the Epipain cohort reported a high prevalence of CWP without significant difference between men and women (33.9% vs 44.9%; p=0.411). Women had lower PPTg than men (345.0 kPa vs. 563.9 kPa; p<0.001). Subjects classified as CWP had lower PPTg than those classified as NCP (362.0 kPa vs. 479.9 kPa; p=0.003). A report of CRP did not affect PPTg in