Background: Fibromyalgia is characterized by chronic widespread musculoskeletal pain that often co-exists with sleep disturbances, fatigue, cognitive dysfunction, stiffness and tenderness to palpation at specific tender points. Selective serotonin reuptake inhibitors represent a class of commonly used antidepressants. They act by preventing the reuptake of 5-hydroxytryptamine (5-HT) (Serotonin) through the inhibition of the 5-HT transporter (5-HTT) which is located on the presynaptic neuron, thereby increasing levels of 5-HT within the synaptic cleft and modulating neurochemical signaling. Usage of SSRIs was significantly associated with lumbar spine BMD reduction, particularly for old people.

DXA and TBS revealed that usage of SSRIs and SNRI was significantly associated with low BMD (Osteopenia and osteoporosis) specially spine BMD reduction with low TBS (partially degraded and degraded) particularly for old people. Conclusion: the present study provided evidence that usage of SSRIs or SNRI was significantly associated with low BMD (Osteopenia and osteoporosis) specially spine BMD reduction with low TBS (Partially degraded and degraded) particularly for old people and despite low BMD was found in the SRI users; it also found in 1ry fibromyalgia not on SRIs so 1ry fibromyalgia should also be considered as a contributing factor for low BM.

Objectives: This work aim to determine the correlation between selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs) usage and bone mineral density (BMD) and trabecular bone score (TBS) changes in primary Fibromyalgia patient

Methods: The present cross sectional study was conducted on a Hundred (100) Egyptian patients diagnosed as primary fibromyalgia divided according to drug medication into two 2 groups, 50 patients on SSRIs and 50 patients on SNRIs, recruited from Rheumatology, Physical Medicine and Rehabilitation departments at Al-Hussein and Sayed Galal, Al-Azhar University Hospitals. In addition to another 50 age matched the control group subdivided into 25 primary fibromyalgia patients not on those drugs and 25 healthy individuals selected by nurses and medical staff, after an informed consent from all subjects from June 2018 to December 2018. An approval was obtained from the medical ethics committee of Al-Azhar University before starting this study. All the patients were informed about the study procedures and a written consent was obtained from all of them. The subjects were categorized into three groups. Group A: 50 1ry fibromyalgia patients on SSRI. Group B: 50 1ry fibromyalgia patients on SNRI. Group C: 50 individuals as a the control group subdivided into: group C-1: 25, 1ry fibromyalgia patients non SRIs-users and group C-2: 25) healthy individuals.

Results: DXA and TBS revealed that usage of SSRIs and SNRI was significantly associated with low BMD (Osteopenia and osteoporosis) specially spine BMD reduction with low TBS (partially degraded and degraded) particularly for old people. Conclusion: the present study provided evidence that usage of SSRIs or SNRI was significantly associated with low BMD (Osteopenia and osteoporosis) specially spine BMD reduction with low TBS (Partially degraded and degraded) particularly for old people and despite low BMD was found in the SRI users; it also found in 1ry fibromyalgia not on SRIs so 1ry fibromyalgia should also be considered as a contributing factor for low BMD

Conclusion: The present study provided evidence that usage of SSRIs or SNRI was significantly associated with low BMD (Osteopenia and osteoporosis) specially spine BMD reduction with low TBS (Partially degraded and degraded) particularly for old people and despite low BMD was found in the SRI users; it also found in 1ry fibromyalgia not on SRIs so 1ry fibromyalgia should also be considered as a contributing factor for low BMD. Keywords: SSRI, SNRI, FMS, fibromyalgia, osteoporosis, TBS, BMD, bone mineral density, trabecular bone score.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.674

AB0951

THE ITALIAN FIBROMYALGIA REGISTRY: A NEW WAY OF USING ROUTINE REAL-WORLD DATA CONCERNING PATIENT-REPORTED DISEASE STATUS IN HEALTHCARE RESEARCH AND CLINICAL PRACTICE

F. Salaffi¹, S. Farah¹, V. Giorgi², P. Sarzi-Puttini² on behalf of the Italian Society of Rheumatology (SIR). ¹Università Politecnica delle Marche, Clinical and Molecular Science Department, Jesi, Italy; ²ASST Fatebenefratelli L. Sacco University Hospital, Rheumatology Unit, Internal Medicine Department, Milan, Italy

Background: Fibromyalgia (FM), the most frequently encountered cause of widespread musculoskeletal pain, affects an estimated 2% of the general Italian population. However, it is not a homogeneous clinical entity, and a number of interacting factors can influence patient prognosis and the outcomes of standardised treatment programmes. Registries are a source of high-quality data for clinical research, but relating this information to individual patients is technically challenging.

Objectives: The aim of this article is to describe the structure and objectives of the first Italian Fibromyalgia Registry (IFR), a new web-based registry of patients with FM.

Methods: The IFR was developed to collect, store, and share information electronically entered by physicians throughout Italy who are members of the Italian Society of Rheumatology and have a particular interest in FM. It has a web-based architecture that uses two separate servers and an encryption algorithm to ensure the confidentiality and integrity of the exchanged data. The questionnaires included on the platform are the Revised Fibromyalgia Impact Questionnaire (FIQR), the modified Fibromyalgia Assessment Status (ModFAS), and the Polysymptomatic Distress Scale (PDS).

Results: The registry includes data relating to 2,339 patients (93.2% female) who satisfied the 1990 or 2010/2011 American College of Rheumatology Classification Criteria for Fibromyalgia at the time of diagnosis. At the time of this analysis, the patients had a mean age of 51.9 years (SD 11.5) and a mean disease duration of 7.3 years (SD 6.9). The majority were married (71.3%), and generally well educated. The overall median FIQR, ModFAS and PDS scores and 25th-75th percentiles were respectively 61.16 (41.16-77.00), 8.91 (41.16-77.00), and 19.0 (13.00-24.00). The six highest scoring items indicating the greatest impact of the disease on the patients related to fatigue/energy (7.18), sleep quality (6.87), tenderness (6.69), pain (6.68), stiffness (6.66), and environmental sensitivity (6.35). A high proportion of the responding patients reported experiencing pain in the neck (80.46%), upper back (68.36%), and lower back (75.05%).

Conclusion: The IFR is the most comprehensive FM registry in Italy, and provides healthcare professionals with a secure, reliable, and easy-to-use means of monitoring the patients' clinical progression, treatment history and treatment responses. This can help clinicians to plan patient management, facilitates research study patient recruitment, and provides the participating pain clinics with statistics based on real-world data. It also helps address the Italian Ministry of Health long-term goal of using precision medicine for chronic pain prevention and treatment. It is hoped that the IFR will enhance both scientific research and clinical practice.

References:

- [1] DROLET BC, JOHNSON KB: Categorizing the world of registries 2008; 41: 1009-20.
- [2] MARTINEZ JE, PAIVA ES, REZENDE MC, HEYMANN RE, HELFENSTEIN M, RANZOLIN A, ET AL.: EpiFibro (Brazilian Fibromyalgia Registry): data on the ACR classification and diagnostic preliminary criteria fulfillment and the follow-up evaluation. 2017; 57: 129-33
- [3] WHIPPLE MO, McALLISTER SJ, OH TH, LUEDTKE CA, TOUSSAINT LL, VINCENT A: Construction of a US fibromyalgia registry using the Fibromyalgia Research Survey criteria. 2013; 6: 398-99
- [4] WOLFE F, SMYTHE HA, YUNUS MB, BENNETT RM, BOMBARDIER C, GOLDENBERG D, ET AL.: The American College of Rheumatology 1990 Criteria for the Classification of Fibromyalgia. Report of the Multicenter Criteria Committee. 1990; 33: 160-72

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.5535

AB0952

COENZYME Q10, TRYPTOPHAN AND MAGNESIUM: A NUTRITIONAL SUPPLEMENT IN THE TREATMENT OF FIBROMYALGIA SYMPTOMS

A. Gomez-Centeno¹, M. Ramentol², M. J. Gonzalez², C. Alegre². ¹Hospital Universitari Parc Taulí, Department of Rheumatology, Sabadell (Barcelona), Spain; ²Hospital Universitari Quirón-Dexeus, Barcelona, Spain

Background: Fibromyalgia syndrome (FMS) is a multidimensional chronic disorder characterized by widespread musculoskeletal pain, fatigue, sleep disturbances, cognitive dysfunction, depressive episodes, and anxiety [1]. Management of FMS remains challenging and treatment strategies are required to be multidisciplinary. Among nonpharmacological therapies, nutrition is a promising tool, since oxidative stress and/or an imbalance of nutritional components have demonstrated to play a critical role in the pathophysiology of FMS [2,3].

Objectives: We conducted a pilot study (FATMIA Study) to investigate the efficacy and tolerability of a dietary supplementation (NSC) containing coenzyme Q10, magnesium and tryptophan in FMS patients.

Methods: This was a prospective, double-blind, placebo-controlled, two-period pilot study conducted between March 2017-October 2017. All patients underwent two 3-month treatments with NSC and placebo, with a 1-month washout period in between. To evaluate the most prevalent clinical manifestations of FMS, the Combined Index of Severity of Fibromyalgia questionnaire (ICAF) [4] was used. A sample of 23 patients aged from 18 to 80 years, with a formal diagnosis of fibromyalgia of at least two years, was included in the study.

Results: Twenty patients completed the study, while three (13.0%) dropped out because they failed to attend all clinical visits (n=2) or presented an adverse event (n=1). Participant demographics are presented in Table 1. All participants were female with a mean age of 51.9 (7.2) years. Depression and anxiety were reported in 65.0% (13/20) and 30.0% (6/20) of cases, respectively. All patients were under pharmacological treatment for FMS symptoms. The most commonly reported medications were paracetamol (60.0%, 12/20), selective serotonin reuptake inhibitors

(45.0%, 9/20), and tramadol (40.0%, 8/20). Physical symptoms such as fatigue, functional capacity, pain and sleep quality improved at the end of the study treatment, whereas they mainly declined after placebo treatment. However, no statistically significant differences were found among the studied variables. Total ICAF score improved after NSC treatment, and declined after placebo treatment. NSC treatment was well tolerated, with a low incidence of adverse events (5.0%, 1/20).

Table 1. Patient demographics

Parameter	Value
Age, years [mean (SD)]	51.9 (7.2)
Sex (F/M)	20/0
Weight, kg [mean (SD)]	69.3 (13.1)
Height, cm [mean (SD)]	160.4 (6.5)
Years since first FMS diagnosis [mean (SD)]	7.7 (6.3)
Occupational status, n (%)	
Working full-time/part-time	10 (50.0)
At home	3 (15.0)
Not working/receiving pension	5 (25.0)
Retired or unemployed	2 (10.0)
Smoking patients, n (%)	8 (40.0)
Patients on alcohol consumption, n (%)	0 (0.0)
Patients on physical activity, n (%)	2 (10.0)

F/M: female/male

Conclusion: The results of this study constitute the first investigation of the effect of a nutritional supplement containing CoQ10, magnesium and tryptophan on FMS. Although the results should be confirmed in larger studies, they suggest that NSC treatment for 3 months, in addition to pharmacological therapy, may be of interest in the management of FMS. This treatment appeared to primarily improve physical symptoms, such as fatigue and pain, with low risk of adverse events.

References:

- [1] Macfarlane GJ, Kronisch C, Dean L, Atzeni F, Häuser W, Fluss E. EULAR revised recommendations for the management of fibromyalgia. *Ann Rheum Dis.* 2016;76:1–11.
- [2] Cordero MD. Estrés oxidativo en la fibromialgia: fisiopatología e implicaciones clínicas. *Reumatol Clin.* 2011;7:281-3.
- [3] Bjørklund G, Dadar M, Chirumbolo S, Aaseth J. Fibromyalgia and nutrition: Therapeutic possibilities? *Biomed Pharmacother.* 2018;103:531-538.
- [4] Vallejo MA, Rivera J, Esteve-Vives J. ICAF Group. Development of a self-reporting tool to obtain a Combined Index of Severity of Fibromyalgia (ICAF). *Health Qual Life Outcomes.* 2010;8:2.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.5531

AB0953 CANNABINOIDS: FRIEND OR FOE OR A BYSTANDER?

N. Jain¹, N. Reddy¹, A. Moorthy¹. ¹Leicester Royal Infirmary, Leicester, United Kingdom

Background: Cannabinoids has recently gained popularity for use in chronic pain. There is a lot of inquisitiveness among our patients wherein health care professionals are asked about its efficacy, side effects and sometimes even ask for a prescription! As there is paucity of data and research about its use in rheumatology, patient reported outcome (PROM) can guide ahead in expanding our knowledge and experience.

Objectives: To study usage of cannabinoids by rheumatology patients

To study awareness among primary physicians regarding Cannabinoid usage in rheumatology.

Methods: Cross sectional survey with two arms. Arm 1 Information from patients attending tertiary rheumatology clinic, including perception regarding the use of Cannabinoids.

Arm 2 consisted of collecting data via web-based survey with 20-question from 100 GPs of Leicestershire. Questions on demographics, perspectives on and knowledge of cannabinoid use. Statistical analysis SPSS software.

Results: Arm 1 Total 102 rheumatology patients with 60% were females and 45% secondary education. 48% were unemployed. 75% Caucasians, 18% Asians. RA most common diagnosis followed by OA and FMS. 40% depression and anxiety in addition to Rheumatic disease. 94% reported ongoing pain with 6-8 on a VAS scale. 79% were satisfied with their current therapy. 65% had heard about complementary medicine and 15% reported using cannabinoids.

Most common form Cannabinoids oil 60% followed by smoking 20%. 56% reported using >3 months and majority 72% use daily. Median age 55 years. 88% users Caucasians. Mean disease duration 6.25 years among users indicates chronicity of disease has a direct proportion in usage. All users had ongoing pain of 7 on VAS. 87% believed it helps them managing pain effectively with a pain free state. On an average spends between 50-100 pounds per week. More than half believe cannabinoids should be available as a prescription drug in NHS and 30% interested to know more about it.

In Arm 2 consisting of Primary care physicians, response rate 50%. Average clinical experience 5 years. Only 20% heard about usage of complementary medicine by rheumatology patient. Most replied that 10% of their patients use Cannabinoids for pain management. Most did not believe use of cannabinoids benefited the patients. Only 4% recommend its usage. 25% think it should be available as prescription. 40% experienced patients asking about cannabinoids during appointment. 88% of respondents did not know much about cannabinoid usage in rheumatology and have never prescribed it in their practice.

Conclusion: Cannabinoids widely used by the rheumatology patients with PROM favouring its efficacy for control of chronic pain. Preclinical data suggest that cannabinoids might have a therapeutic potential RA¹, OA, FMS². Clinical data regarding cannabinoid treatment for rheumatic diseases are scarce, therefore, recommendations concerning cannabinoid treatment cannot be made. All patients who reported using it suffered from moderate to severe chronic pain. Thus main indication of usage was pain rather than recreational purpose. Although a small survey it clearly highlights lack of knowledge among primary physicians. These results emphasise the need for further research regarding the benefits and risks of cannabinoids in rheumatology.

References:

- [1] Richardson D. et al Characterisation of the cannabinoid receptor system in synovial tissue and fluid in patients with OA and RA *Arthritis Res. Ther.* 10, R43 (2008).
- [2] Walitt B et al Cannabinoids for fibromyalgia. *Cochrane Database Syst. Rev.* 7, CD011694 (2016).

Disclosure of Interests: Nibha Jain: None declared, Neelima Reddy: None declared, Arumugam Moorthy Speakers bureau: Abbvie, Novartis, UCB, MSD

DOI: 10.1136/annrheumdis-2020-eular.6449

AB0954 IS CONNECTIVE TISSUE MASSAGE EFFECTIVE IN INDIVIDUALS WITH FIBROMYALGIA?

A. Keskin¹, B. Basakci Calik¹, E. Gur Kabul¹, V. Cobankara². ¹Pamukkale University, School of Physical Therapy and Rehabilitation, Denizli, Turkey; ²Medical Faculty of Pamukkale University, Department of Rheumatology, Denizli, Turkey

Background: Fibromyalgia (FM) is a systemic rheumatic disease characterized by diffuse pain in the body, tenderness, fatigue and many more symptoms. Exercise is effective and safe method in individuals with FM. Connective tissue massage, another treatment method, is a reflex therapy where shear force is applied in a certain order at the connective tissue interfaces of the skin. In the literature, there is limited study related compared with clinical pilates exercises and connective tissue massage in individuals with FM.

Objectives: The aim of the study was to examine the effectiveness of clinical pilates exercises and connective tissue massage in Individuals with Fibromyalgia on disease activity, number of painful regions, anxiety, biopsychosocial status and quality of life.

Methods: 32 women (age mean=52.43±8.32) diagnosed with FM according to American College of Rheumatology (ACR) criteria were included in this study. Participants were randomly divided into two groups as interventional group (n=15, mean age=48.80±7.48) and control group (n=17, mean age=55.64±7.87). While the connective tissue massage and clinical pilates exercises were applied to the treatment group, only clinical pilates exercises were applied to the control group. After the demographic characteristics and disease related data of the individuals were recorded; number of painful regions were assessed with Pain Location Inventory (PLI), disease impact with Fibromyalgia Impact Questionnaire (FIQ), functional status with Health Assessment Questionnaire (HAQ), anxiety with Beck Anxiety Inventory (BAI), quality of life with Short Form-36 (SF-36) and biopsychosocial status with Cognitive Exercise Therapy Approach (BETY) Scale were evaluated. All evaluations were made before and after treatment. All interventions were applied 3 days per week for 6 weeks by the same experienced physical therapist. One session for clinical pilates exercises consisted of 60 minutes (10 minutes warm up, 40 minutes clinical pilates exercises, 10 minutes cool-down). Connective tissue massage was started from lumbosacral region and continued lower thoracic, scapular, interscapular, and cervical regions, respectively. The Kolmogorov-Smirnov Test was used to determine whether the continuous variables were normal distributions.

Results: When the pre-treatment and post-treatment results are analyzed; the results were significant in the intervention group of PLI (p = 0.007), SF 36 physical component (p = 0.025) and mental component (p = 0.017) and FIQ (p = 0.004), while in the control group the difference in SF 36 physical component (p = 0.008) and mental component (p = 0.024), FIQ (p = 0.001) and BAI (p = 0.043) was significant. Delta values were calculated by subtracting post-treatment results from pre-treatment results. When the delta values of the groups are compared, it was determined that the difference only in the PLI (p = 0.023) were significant in favor of the treatment group.

Conclusion: According to our results, connective tissue massage has been shown to be effective in reducing the number of painful areas in addition to the