SS/Fibro-group were more likely reporting arthralgia symptoms (100.0%) than SS-group (76.0% $p=0.02$), despite similar clinical evidence of arthritis-synovitis among the two groups (12.0% in both groups respectively, $p=1.00$). Moreover, SS/Fibro-group showed significantly lower ESSDAI score (2.8 ± 1.7) and higher ESSPRI score (7.0 ± 0.9) compared to SS-group (ESSDAI: 7.5 ± 3.7 $p<0.001$ and ESSPRI: 5.2 ± 1.4 , $p<0.001$ respectively). Finally, analyzing the differential distribution of individual scores of physical and psychological domains of the Italian-FIQR Questionnaire, SS/Fibro-group did not differ compared to Fibro-group ($p>0.05$ for all the 21 questions included).

Conclusion: SS is affected by concomitant fibromyalgia in terms of subjective-dependent parameters (i.e. joint complaints) however the concomitant SS does not affect the impact of fibromyalgia on physical and psychological domains, even if disease activity is higher in SS patients without fibromyalgia.

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AB0948

TIME TO CONSIDER HYPERMOBILITY AS A CAUSE OF SYMPTOMS IN PATIENTS PRESENTING TO EARLY ARTHRITIS CLINICS: A RETROSPECTIVE ANALYSIS OF 279 PATIENTS

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Background: Joint hypermobility is a common, although largely ignored physical sign. It is often asymptomatic but can be associated with significant musculoskeletal symptoms. Joint hypermobility may also be a feature of an underlying genetic disorder and patients may present with arthralgia, recurrent soft tissue injuries and intermittent joint swelling due to mechanical instability and poor proprioception. At University College London Hospital, we run a national service for the diagnosis and management of patients with hypermobility related disorders including hypermobility spectrum disorders, Ehlers-Danlos syndromes and Marfan syndrome. Over the years we observed that a significant number of our patients had been referred to the early arthritis clinics years prior to the recognition of their hypermobility. For example, one patient with a vascular type of Ehlers-Danlos syndrome EDS (confirmed COL3A mutation) presented to 3 different hospitals over a 5-year period, with possible inflammatory arthritis prior to the EDS diagnosis. Several studies have shown that a significant proportion of patients attending early arthritis clinics do not have inflammatory rheumatic diseases. In our experience, heritable disorders of connective tissue and hypermobility spectrum disorders are often overlooked and should be included in the differential diagnosis in patients seen in the early arthritis clinics.

Objectives: We aimed to audit the outcome of patients who were seen in the early arthritis clinics focusing on those who were not found to have inflammatory rheumatic diseases and to explore if joint hypermobility was considered as a possible cause of patient's symptoms.

Methods: A retrospective analysis of medical records was conducted of patients attending the early arthritis clinics at University College London Hospital between May 2018 and December 2019.

Results: 279 patients (90 males, 189 females) were seen in the early arthritis clinics with a mean age of 48 (range 19-91). 131 patients (47%) did not have inflammatory rheumatic diseases. Sixty-three of these patients (48%) were not given any diagnosis and joint hypermobility was not assessed during the appointment. Eleven patients (8%) had features of hypermobility, 11 patients (8%) were diagnosed with fibromyalgia, 20 patients (15%) received a diagnosis of osteoarthritis, and 27 patients (21%) were given other diagnoses including tendonitis and soft tissue pathology.

Conclusion: Almost 50 % of patients who were seen in the early arthritis clinics did not have inflammatory rheumatic diseases and 21 % of patients were discharged without a clear diagnosis. In these patients, hypermobility was not assessed and this is consistent with our observation. In our experience recognising joint hypermobility as a cause of arthralgia and intermittent joint swelling usually reassures patients and motivates them to follow appropriate treatment protocols including physiotherapy and occupational therapy thus allowing a more efficient utilization of early arthritis clinic resources towards those with true inflammatory rheumatic diseases. Going forward, we have planned to embed a cognisant attitude towards hypermobility within the relevant clinics to ensure that

patients who do not have inflammatory arthritis are assessed for hypermobility and directed towards appropriate management.

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AB0949

AUTONOMIC AND INFLAMMATORY MECHANISMS OF PAIN AND FATIGUE IN FIBROMYALGIA AND ME/CFS: AN INTERVENTIONAL STUDY

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Background: Fibromyalgia and ME/CFS are complex disorders with overlapping symptoms; the pathoetiology and clinical distinction are debated, however inflammatory and autonomic abnormalities are observed.

Objectives: To investigate the role of inflammatory and autonomic nervous system responses in mechanisms of pain and fatigue in fibromyalgia and ME/CFS

Methods: 63 patient participants with clinical diagnoses of fibromyalgia and/or ME/CFS were recruited into a multi-stage interventional study (ISRCTN78820481) alongside 24 healthy controls. All underwent research diagnostic criteria evaluation. The majority underwent autonomic challenge (60 degree head up tilt) and/or inflammatory challenge (placebo-controlled typhoid vaccination) with baseline characterisation of symptoms, inflammatory markers and pre-post measures of pain and fatigue.

Results: Of the 63 patients, 32% of patients had received a clinical diagnosis of Fibromyalgia; 38% ME/CFS and 30% dual diagnoses. Following research evaluation 89% met ACR diagnostic criteria for fibromyalgia; 94% Canadian Criteria for ME/CFS; 97% Fukada Criteria for ME/CFS

There was a significantly higher ESR in patients compared to controls ($p=0.036$). There was a trend towards higher CRP in patients compared to controls ($p=0.076$). ESR correlated with baseline pain score ($r=0.309$, $p=0.011$), fatigue severity ($r=0.262$, $p=0.032$), fatigue impact ($r=0.382$, $p=0.014$) change in fatigue score induced by tilt ($r=0.319$, $p=0.011$) and change in pain score induced by placebo-controlled inflammation ($r=0.279$, $p=0.043$). Similarly CRP level correlated with baseline pain score ($r=0.340$, $p=0.005$), fatigue impact ($r=0.439$, $p=0.004$), change in fatigue ($r=0.277$, $p=0.045$) and pain score ($r=0.394$, $p=0.014$) induced by placebo-controlled inflammation and change in pressure pain threshold induced by tilt ($r=0.286$, $p=0.027$).

Baseline IL6 was higher in patients than controls ($p=0.002$), correlating with baseline pain score ($r=0.345$, $p=0.002$) and change in pain score induced by tilt ($r=0.281$, $p=0.021$). Change in IL6 induced by inflammatory challenge correlated with inflammation induced fatigue score ($r=0.378$, $p=0.01$).

Conclusion: Inflammatory and autonomic mechanisms contribute to pain and fatigue in this frequently overlooked patient group, highlighting possibilities for targeted treatments. Such data will be enriched going forward by neuroimaging and transcriptomic insights.

References: n/a

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AB0950

EFFECT OF SELECTIVE SEROTONIN REUPTAKE INHIBITORS AND SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS ON BONE MINERAL DENSITY IN EGYPTIAN PATIENTS WITH PRIMARY FIBROMYALGIA

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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.

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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

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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.

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AB0952

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

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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