cases with an uncontrolled infection under antibiotics. Disseminated tuberculosis occurred in 33.3%, recurrence of the infection in the same site in 16.7% and extension to another articular localisation in 25% of the cases. One patient had a tuberculous meningoenzephalitis leading to his death.

Conclusion: Tuberculous septic arthritis is difficult to diagnose and should be recalled especially in endemic countries when dealing with chronic monoarthritis. Synovial biopsy is needed most of the time to confirm the diagnosis. Treatment is long and the disease may be complicated with fatal disseminated forms.

References:

- [1] Foocharoen C, Nanagara R, Foocharoen T, Moosikapun P, Suwannaroj S, Mahakkanukrauh A. Clinical features of tuberculous septic arthritis in Khon Kaen, Thailand: a 10-year retrospective study. *Southeast Asian J Trop Med Public Health*. nov 2010;41(6):1438-46.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.5664

AB0945

CONTRIBUTION OF MICROBIOLOGICAL AND ANATOMOPATHOLOGICAL EXAMINATIONS IN THE DIAGNOSIS OF SPONTANEOUS PYOGENIC SPONDYLODISCITIS IN ADULTS

I. Mahmoud¹, M. Moalla¹, A. Ben Tekaya¹, S. Bouden¹, R. Tekaya¹, O. Saidane¹, L. Abdelmoula¹. ¹Hospital Charles Nicolle, Rheumatology, TUNIS, Tunisia

Background: Pyogenic spondylodiscitis (SPD) is a serious infection of an intervertebral disc and/or adjacent vertebrae, that remains a topical problem in rheumatological practice. Early diagnosis and treatment are the only guarantees of a favorable outcome. Clinicians must strive to isolate the responsible bacteria in order to adapt the treatment, and thus reduce the risk of resistance and complications due to SPD itself, but also to the multiplication of probabilistic treatments.

Objectives: Our aim was to study the contribution of the different microbiological and anatomopathological examinations in the diagnosis of pyogenic SPD.

Methods: It was a descriptive study in a single rheumatology department. Data were collected retrospectively from observations of patients hospitalized in the past 20 years who have been diagnosed with pyogenic SPD. We excluded cases of tuberculous and brucellar SPD from our study because of their completely different histological and microbiological profiles.

Results: Twenty-two cases of pyogenic SPD were collected (14M/ 8F). The mean age of the population was 55.9 years [29,80]. A bacteriological survey including at least one cytobacteriological examination of the urine (CBEU), chest X-rays and blood cultures allowed the identification of the bacteria in 16 cases (73%). The most common site where bacteria was identified was blood culture in 7 cases, skin sample and urine collection in 2 cases each. Disco-vertebral puncture and biopsy (DVPB) was performed in 19 patients when there was no bacteria identification and/or when diagnosis of infectious SPD persisted doubtful. On histopathological examination, were described: an infiltrate and/or inflammatory changes without specificity signs in 7 patients and an appearance of chronic pyogenic SPD very likely in 12 patients. Bacteriological study of DVPB fluid or paravertebral abscesses sample helped to isolate bacteria in 4 patients. DVPB or abscesses puncture were contributing by histological and/or bacteriological examination in 12 patients (63%).

Infecting bacteria was identified in 14 patients (64%). Gram-negative bacilli (GNB) and staphylococcus aureus were the most frequent germs (7 cases each) including 2 cases of co-infection. GNBs were represented by: *Escherichia Coli* and *Enterobacter Cloacae* in 2 cases each, *Proteus Mirabilis*, *Serratia Marcescens* and *Klebsiella oxytoca* in 1 case each. *Clostridium clostridioforme* and *Lactococcus cremoris* were isolated in 1 case each. For patients whose etiological investigation remained negative, SPD diagnosis was retained based on imaging (MRI) guided by anamnestic, clinico-biological and histopathological arguments.

Conclusion: SPD is a rare condition that needs to be treated rapidly. Once the diagnosis is suspected, bacteria must be isolated before starting any antibiotic therapy. Simple and non-invasive exams as blood cultures, CBUE and chest rays, should be undertaken first. In fact, these simple exams allowed a germ identification in 73% cases in our study. If doubt persists, DVPB could be contributive to the diagnosis.

References: None

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.6272

AB0946

PARTICULARITY OF MULTIFOCAL INFECTIOUS SPONDYLODISCITIS

S. Miladi¹, K. Saadaoui¹, A. Fazaa¹, S. Mariem¹, K. Ouenniche¹, L. Souabni¹, S. Kassab¹, S. Chkili¹, L. Zakraoui¹, A. Laatar¹. ¹Mongi Slim Hospital, Rheumatology, Marsa, Tunisia

Background: Infectious spondylodiscitis is an infection of the intervertebral disc with damage to the vertebrae. Multiple stage involvement may lead to serious complications. Better understanding of this infection is mandatory for optimal management.

Objectives: The objective of our study was to describe the clinical, biological aspects and the course of this disease.

Methods: This is a retrospective study including cases of infectious spondylodiscitis collected in a single rheumatology center between 2002 and 2018. Multifocal spondylodiscitis was defined as an involvement of 2 or more disc levels. Clinical, biological and evolution of this disease were reported.

Results: Among the 52 cases of infectious spondylodiscitis collected, thirteen patients had multi-stage involvement of the spine. The sex ratio M/F in this group = 0.44 with an average age of 52 ± 14.32 years [31 – 76 years]. Diabetes mellitus was observed in 3 patients, chronic renal failure in one case and immunosuppressive therapy in one case. At the moment of the diagnosis, inflammatory back pain was present in all patients, fever was noted in 8 patients (61.5%), neurological deficit in 2 patients (15.4%) and weight loss in 4 cases (30.8%). The diagnosis time delay was 22 ± 15.9 weeks [2 – 60 weeks]. The mean CRP was 70.16 mg / L ± 55.5 [3.4 - 178] and the ESR was on average 79 mm ± 31.28 [6 - 125]. Diagnosis was confirmed by MRI in all cases. A prevertebral abscess was observed in 7 cases (13.5%), an epiduritis in 5 patients (38.5%) and a psoas abscess in two cases (15.2%). The cervical spine was affected in 3 cases, the dorsal spine as well as the lumbar spine were affected in 12 cases. The involvement of 2 vertebral sites was the most frequent with 7 cases. A maximum of 5 sites was noted in 3 cases. The thoracolumbar spine was the most affected with 11 cases (84.6%), the cervico-thoraco-lumbar involvement was found in only one case (7.7%). The bacteriological diagnosis was done by the disco-vertebral biopsy in 6 cases (46.2%), the brucellar serology in 3 cases (26.1%) and a strong presumption of tuberculosis (with positive IDR or Quantiferon) in 4 cases (30.8%). Mycobacterium tuberculosis was isolated in 8 patients (61.5%), brucella melitensis in 3 patients (23.1%) and staphylococcus aureus was found in 2 cases (15.4%). The outcome was favorable in all patients with appropriate antibiotic therapy after an average follow-up of 10.9 months ± 2.19.

Conclusion: Multifocal infectious spondylodiscitis is a serious disorder which mainly affects immunocompromised patients and the specific germs are the most incriminated.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.6172

Pain in rheumatic diseases, including fibromyalgia

AB0947

RECIPROCAL IMPACT OF FIBROMYALGIA ON DISEASE CHARACTERISTICS AND PHYSICAL AND PSYCHOLOGICAL DOMAINS IN SJOGREN SYNDROME: CROSS SECTIONAL OBSERVATIONAL STUDY.

A. Capacci¹, P. Rubortone¹, V. Varriano¹, A. Paglionico¹, S. Perniola¹, M. R. Gigante¹, B. Toluoso¹, S. Alivernini², E. Gremese². ¹Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy; ²Fondazione Policlinico Universitario A. Gemelli IRCCS - Università Cattolica del Sacro Cuore, Rome, Italy

Background: Sjogren Syndrome (SS) is an autoimmune exocrinopathy, resulting mainly in ocular and oral dryness, with approximately half of patients displaying symptoms from different organ systems, further adding to the heterogeneous clinical phenotype of the disease. Fatigue and pain are common systemic symptoms in patients with primary SS and fibromyalgia is a frequent condition associated with chronic diseases.

Objectives: The aim of the study was to evaluate the impact of concomitant fibromyalgia in patients with Sjogren Syndrome in terms of clinical features and disease activity.

Methods: 50 patients with Sjogren Syndrome were enrolled in the study (100% female, age: 53.7 ± 13.2 years and disease duration: 8.7 ± 5.3 years), 25(50.0%) with concomitant fibromyalgia (SS/Fibro-group) and 25(50.0%) without (SS-group). 36 patients with primary fibromyalgia (Fibro-group) were included as control group. At study entry, demographic, educational, life-style and clinical parameters were recorded for each patient. SS was diagnosed according to the American College of Rheumatology (ACR) classification criteria (1) and fibromyalgia was diagnosed according to criteria for fibromyalgia defined by ACR (2). Moreover, each patient with fibromyalgia, with and without concomitant SS, was asked to fill a self-reported questionnaire to assess the impact of Fibromyalgia on multiple physical and psychological domains (Italian-FIQR).

Results: Stratifying the study cohorts based on the demographic and life-style characteristics, no significant differences were found comparing SS-group, Fibro-group and SS/Fibro-group. However, considering the different organ involvement,

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.

References:

- [1] Shiboski SC et al. Arthritis Care Res, 2012
- [2] Wolf F. et al. Arthritis Rheum 1990

Disclosure of Interests: Annunziata Capacci: None declared, Pietro Rubortone: None declared, Valentina Varriano: None declared, Annamaria Paglionico: None declared, Simone Perniola: None declared, Maria Rita Gigante: None declared, Barbara Tolusso: None declared, Stefano Alivernini: None declared, Elisa Gremese Speakers bureau: Abbvie, BMS, Celgene, Janssen, Lilly, MSD, Novartis, Pfizer, Sandoz, UCB

DOI: 10.1136/annrheumdis-2020-eular.5940

AB0948

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

S. Dar¹, D. Ludwig², M. Greenwood², H. Kazkaz², V. Morris². ¹UCL Medical School, London, United Kingdom; ²University College Hospital, London, United Kingdom

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.

References:

- [1] Castori M, Hakim A. Contemporary approach to joint hypermobility & related disorders. *Current Opinion in Pediatrics*. 2017;29(6):640-649.
- [2] Emma Connelly, Alan Hakim, Sally Davenport & Jane Simmonds, A study exploring the prevalence of Joint Hypermobility Syndrome in patients attending a Musculoskeletal Triage Clinic. *Physiotherapy Practice & Research* 36 (2015) 43-53
- [3] Feuchtenberger M, Nigg A, Kraus M, Schäfer A. Rate of Proven Rheumatic Diseases in a Large Collective of Referrals to an Outpatient Rheumatology Clinic under Routine Conditions. *Clin Med Insights Arthritis Musculoskeletal Disord*. 2016; 9: 181-187.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4548

AB0949

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

J. Eccles^{1,2}, M. Amato¹, C. Thompson^{1,2}, K. Themelis^{1,3}, H. Critchley¹, N. Harrison^{1,4}, K. Davies^{1,2}. ¹Brighton and Sussex Medical School, Falmer, United Kingdom; ²Clinical Investigation and Research Unit, Royal Sussex County Hospital, Brighton, United Kingdom; ³University of Warwick, Warwick, United Kingdom; ⁴CUBRIC, University of Cardiff, Cardiff, United Kingdom

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

Acknowledgments: This work was supported by Versus Arthritis, Action for Me, Fibroduct Foundation and NIHR

Disclosure of Interests: Jessica Eccles: None declared, Marisa Amato: None declared, Charlotte Thompson: None declared, Kristy Themelis: None declared, Hugo Critchley: None declared, Neil Harrison Grant/research support from: Yes, Speakers bureau: Yes, Kevin Davies: None declared

DOI: 10.1136/annrheumdis-2020-eular.5607

AB0950

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

Y. Gazar¹ on behalf of prof dr. Hesham salah HamoudDr. Mohammed Magdy GhaitDr. Mohammed Harb. ¹Rheumatology Department, Faculty of Medicine, AL-Azhar University, Cairo, Egypt