Results: A total of 166 articles were obtained for the term "Aerococcus urinae" and 294 for "Aerococcus" NOT "Aerococcus urinae" (both with filter "humans") (figure 1). Of them, 15 articles (16 cases) were selected and analysed:

8 AU MSK-I cases (our case is the 9th involving a MSK-I):

- 6 cases of spondylodiscitis (66%), 1 hip abscess, 1 septic arthritis in a prosthetic hip and our case with septic oligoarthritis.
- 66% were male and 77% were 60 years or older.
- 77% presented previous urinary tract disease, 55% previous urinary tract invasive procedures and 44% prostatic disease.
- AU was isolated in 4 of 6 cases that reported blood cultures and 2 of 4 cases with reported echocardiography presented infectious endocarditis.
- AU was not isolated in any of the 5 cases that reported urine cultures.
- 100% of cases were diagnosed after 2002 and 78% after 2010; 56% of them were diagnosed by **16 s rDNA PCR or MALDI-TOF MS** while a 33% did not provide enough information on the identification method used.

4 cases of AU with bad odor urine (symptom present in our case): all were healthy paediatric boys that presented AU in urinary cultures without other associated symptoms; 100% were diagnosed after 2010 and 75% of them by **16 s rDNA PCR or MALDI-TOF MS**.

4 cases of *Aerococcus viridans* MSK-I: 2 spondylodiscitis, 1 knee arthritis and 1 case of hip septic arthritis; none was diagnosed via the methods previously described.

The analysed cases and previous reviews that report other AU invasive infections describes good response to beta-lactams and a synergistic effect with aminoglycoside. Our case was treated with intravenous Ampicillin (4 weeks) followed by oral Ciprofloxacin (7 weeks), due to a better bone penetration than oral beta-lactams.

Abstract SAT0409 – Figure 1. Flowchart.

Conclusions: – Similarly as in other invasive infections, AU **MSK-I** are more frequent in older males with previous urinary tract disease.

- The recent increased identification of AU **MSK-I** may well correlate with an increasing use of **MALDI-TOF MS** in clinical laboratories.¹

- Despite its limitations, this systematic review summarises the only data available to date on aerococcus MSK-I and also suggest the likelihood of more frequent diagnosis in the near future.

REFERENCE:

- [1] Rasmussen M. *Aerococcus*: an increasingly acknowledged human pathogen. Clin Microbiol Infect 2016 Jan;22(1):22–27.

Acknowledgements: Rheumatology Spanish Society (SER)

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3465

SAT0410

CHARACTERISTICS OF ABSCESES DURING BRUCELLAR SPONDYLODISCITIS

O. Saidane, I. Oueslati, I. Mahmoud, A. Ben Tekaya, R. Tekaya, L. Abdelmoula. *rheumatology department, Charles Nicolle hospital, Tunis, Tunisia*

Background: Spondylodiscitis is a frequent and important complication of brucellosis. The occurrence of abscesses is common

Objectives: The aim of this study was to determine the characteristics of these collections and if there is an association between the diagnostic delay and their occurrence

Methods: we conducted a retrospective study of 27 patients admitted for Brucella spondylodiscitis over a period of 17 years [2000 and 2016]. Etiological diagnosis was made on a positive Wright agglutination test. All patients underwent a cross sectional imaging: spinal CT (13 cases) and/or spinal MRI (24 cases).

Results: twenty seven patients were included. Ten women and 17 men aged from 33 to 75 years. The most common symptoms were spinal pain (96,3%) and radiculargia (44,4%). The most frequently involved segments were the lumbar spine (59,3%) and the dorsal spine (18,5%). Three patients (11,1%) suffered from cervical spondylodiscitis. The physical examination showed no paravertebral swelling or neurological abnormalities. Seventeen patients had abscesses on the cross sectional imaging (63%). Epidural fluid collections were revealed in 10 cases (37%). Nine patients had psoas abscesses (33,3%) with a bilateral involvement in 3 cases (11,1%). Less frequently, a prevertebral (18,5%), peri-vertebral (18,5%) and intradiscal collections (3,7%) were detected. A statistically significant positive association was found between a longer diagnosis delay and the presence of abscess on spinal MRI (p=0.036).

Conclusions: Epidural and paravertebral abscesses during Brucellar spondylodiscitis are frequent, especially if the diagnosis is delayed. However, they are rarely associated with neurological damage and must be sought consistently on the MRI

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5878

SAT0411

INVESTIGATIONS FOR THE DIAGNOSIS OF SEPTIC ARTHRITIS IN THE ACUTE SETTING. RESULTS FROM A SINGLE TERTIARY CENTRE OVER 5 YEARS

P. Shamdassani¹, D. Liew^{1,2}, C. McMaster¹, A. Foote^{1,3}, A. Hardidge⁴, R. Buchanan^{1,2}. ¹Department of Rheumatology, Austin Health; ²Department of Medicine, University of Melbourne; ³Department of Rheumatology, Northern Health; ⁴Department of Orthopaedic Surgery, Austin Health, Melbourne, Australia

Background: Septic arthritis is a rheumatologic emergency associated with significant morbidity and mortality¹. Timely and accurate diagnosis in the emergency department is essential for early medical and surgical involvement.

Objectives: To examine the predictive value of investigations used to diagnose septic arthritis in the acute setting.

Methods: A retrospective chart review was conducted on all patients referred from the emergency department to the orthopaedic surgery service with a potential diagnosis of septic arthritis between June 2010 and December 2015 at the Austin Hospital in Melbourne, Australia. Data was collected regarding demographic details, risk factors, pathology results, antibiotic prescribing, joint aspirate and theatre samples.

Results: The study included 126 patients with 132 emergency department presentations involving 141 joints. The median age of patients was 70 (IQR 52.3–79.8); 86 (68.3%) were male. The most common joints involved were the knee (49.6%) and hip (17.7%). In 88 of the 132 presentations (67%), culture of the synovial fluid was positive. 19 of these 88 (22%) culture positive presentations had no classical risk factors for septic arthritis (joint prosthesis, previous septic arthritis, immunosuppressed, previous joint disease, intravenous drug use). 12 of the 88 (13%) culture positive patients had symptoms for longer than 4 weeks on presentation in contrast to 2 of the 44 (5%) in culture negative group. There were 8 presentations with multiple joints involved. None of these presentations were in the culture positive group. There was no evidence of a relationship between WCC and culture status (p=0.56) or CRP and culture status (p=0.64), either singly or when combined. There were 94 joint aspirations performed in 132 presentations. 30 (32%) joint aspirations required ultrasound guidance. 42 (45%) joint aspirations had antibiotics administered prior to sample collection. In the culture positive presentations 25 (28.4%) did not have a joint aspirate performed prior to surgical washout. Crystals were seen in 19 (30.2%) culture positive patients. 26 (29.5%) culture positive presentations had no growth on aspirate culture but had positive theatre cultures.

Conclusions: While septic arthritis is a common emergency presentation, there are few useful non-invasive diagnostic tests. Although risk factors aid in stratifying risk, duration of symptoms and inflammatory markers are poor differentiators. Neither the presence of crystals nor the absence of growth on aspirate culture exclude septic arthritis.

REFERENCE:

- [1] Gupta M, Sturrock R, Field M. A prospective 2-year study of 75 patients with adult-onset septic arthritis. *Rheumatology* 2001(40):24–30.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1806

SAT0412 TUBERCULOSIS REACTIVATION DURING BIOLOGICAL THERAPY

R. Carlan¹, S.P. Simon^{1,2}, L. Muntean^{1,2}, M.M. Tamas^{1,2}, L. Damian¹, I. Felea¹, I. Filipescu^{1,2}, S. Rednic^{1,2}. ¹Rheumatology, County Clinical Emergency Hospital; ²Rheumatology, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

Background: With the increasing use and wide variety of biological therapies, there is a concomitant increase in concern for associated opportunistic infections, especially for *Mycobacterium tuberculosis*. ¹

Objectives: The aim of this study was to identify patients who have developed tuberculosis (TB) reactivation during treatment with a biological agent.

Methods: We included patients treated with biological agents in a tertiary Department of Rheumatology who had developed TB and were registered in the national registry for biological therapy. Demographic (urban or rural environment), clinical, therapeutic (biologic agent used) and comorbidities data were retrieved from the database.

Results: The database included 505 patients: 314 patients with rheumatoid arthritis (RA), 129 patients with ankylosing spondylitis (SA) and 62 patients with psoriatic arthritis (PsA).

Prior to the start of biological therapy, tuberculosis screening for latent infection was conducted in all patients. Eight patients (1.58%) were identified as being diagnosed with TB reactivation during biological therapy: 5 RA and 3 SA patients. Two had positive tuberculin test (TST) at baseline and required chemoprevention therapy prior to the initiation of the biological agent (respecting the preexisting guidelines).

Demographic data shows 62.5% patients from urban areas, 50% female and 50% male. Regarding comorbidities, one patient had biapical pachypleuritis (probably TB sequelae), antiphospholipid syndrome and pulmonary hypertension; one had chronic kidney failure and inflammatory bowel disease. The other six patients had minor comorbidities.

62.5% of patients were treated with oral corticosteroids combined with DMARDs. Four patients have been treated with infliximab, three with adalimumab and one with etanercept.

The average time to TB reactivation was 19.6 months (range 2 months to 52 months). Patients who had TB reactivation after two months of biologic therapy were treated with infliximab.

Four patients had developed pulmonary TB; one case was described as a miliary complicated with bacillary peritonitis (peritoneal biopsy). One patient had developed lymph node TB (lymph node biopsy) and one TB of the wrist (switch therapy was not chosen yet).

One particular case was of a patient that had developed TB meningitis with lymphadenitis and a compressible tuberculoma with spastic paraparesis. Switching of biological agent was chosen in 5 patients without another reactivation of tuberculosis. The biological agents chosen in 40% was rituximab, 20% was etanercept, 20% was adalimumab and 20% was infliximab.

Conclusions: Pulmonary and extrapulmonary TB reactivation equally occurred during anti TNF therapy. In some cases, reactivation of tuberculosis occurred even with chemoprevention.

REFERENCE:

- [1] Juliana Lopesa, Ana Machadoa, Sara Martinsa, Sara Piresa, Catarina Brancoa, Joana Fragosob, Diogo Guerrab, Patricia Camposc, Mariana Brandaoa, Graziela Carvalheirasc, Teresa Mendonca -The Challenge of Tuberculosis Infection Related to Adalimumab: A Subtle and Rare Presentation. *J Med Cases* 2018;9(1):23–25.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3323

SAT0413

THE TREND OF INCIDENCE RATE, FREQUENCY, OUTCOMES AND HLA PHENOTYPE OF REACTIVE ARTHRITIS AND UVEITIS IN JAPANESE PATIENTS WITH BLADDER CANCER FOLLOWING INTRAVESICAL BCG THERAPY: A 20-YEAR, TWO-CENTRE RETROSPECTIVE STUDY

Y. Nakatani¹, Y. Taniguchi², S. Inotani², H. Nishikawa², T. Karashima³, Y. Yoshinaga⁴, Y. Terada². ¹Center for the Support and Development of Medical Professionals; ²Department of Endocrinology, Metabolism, Nephrology and Rheumatology; ³Department of Urology, Kochi Medical School Hospital, Nankoku; ⁴Rheumatic Disease Center, Kurashiki Medical Center, Kurashiki, Japan

Background: Intravesical instillation of Bacillus Calmette-Guerin (iBCG) is used as an effective immunotherapy of bladder cancer. However it may have, as adverse event, a reactive arthritis (ReA) and the frequencies are known as about 0.5% to 1% in Western countries.

Objectives: To evaluate the trend of incidence rate, frequency and HLA phenotype of reactive arthritis (ReA), uveitis and other adverse events in Japanese patients with bladder cancer following iBCG therapy.

Methods: The clinical findings of Japanese patients who received iBCG (n=555 [250 and 305 in Kochi Medical School Hospital and Kurashiki Medical Centre, respectively]) for bladder cancer from March 1997 to February 2017 were retrospectively assessed, with specific attention to patients with ReA and uveitis. HLA phenotypes of patients with ReA were also looked. Moreover, iBCG-induced ReA diagnosed from 1997 to 2007 were compared with that from 2007 to 2017. Finally, outcomes of ReA patients were also evaluated.

Results: Patients' mean age was 72±10 years and male/female ratio was 438/117. Fever, haematuria, and dysuria were presented in 91/555 (16.4%), 121/555 (21.8%), and 196/555 (35.3%), respectively of all enrolled patients. Of the 555 cases, ReA and uveitis were revealed in 11/555 (2.0%) and 4/555 (0.7%). The protocol of iBCG therapy was stable over the 20 years. Notably, HLA-B27, -B35, -B39 and -B51 positivity was more frequent in ReA patients (9.1%, 36.3%, 36.3% and 63.6%, respectively) (p<0.05) than in healthy subjects without ReA (0.3%, 8.3%, 4.0% and 9.1%, respectively). All 4 cases with uveitis had ReA, and showed positive HLA-B27 (25%), -B39 (50%) and -B51 (25%). Moreover, the overall incidence of iBCG-ReA was not different between from 1997 to 2007 and 2007 to 2017. Finally, all ReA patients did not progress to chronic type and spondyloarthritis (SpA) as outcomes.

Conclusions: The 2.0% iBCG-induced ReA frequency in Japanese patients exceeds that in Western countries, and its incidence has been stable and all ReA did not progress chronic type and SpA over the last 20 years. HLA phenotype, especially HLA-B51 and -B39 alleles in addition to -B27, may be a risk factor in iBCG-induced ReA in Japanese patients.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2878

SATURDAY, 16 JUNE 2018

SLE, Sjögren's and APS – clinical aspects (other than treatment)

SAT0414

DEVELOPMENT OF MALIGNANCY IN KOREAN SJÖGREN'S SYNDROME PATIENTS; WHOLE NATIONAL HEALTH INSURANCE DATA BASED ANALYSIS

C.H. Lee¹, J.S. Park¹, H.S. Lim², H.Y. Pak². ¹Dept. Internal medicine, Div. Rheumatology; ²Research and analysis team, NHIS Ilsan Hospital, Goyangsi, Korea, Republic Of

Background: Though ocular and oral dryness are the main symptoms of Sjögren's syndrome, extraglandular manifestations including lymphoma were also developed. However, prevalence of Sjögren's syndrome was too low, most studies about lymphoma and malignancy were done on a small-scale.

Objectives: For more large-scale research about development of malignancy in Sjögren's syndrome, we analysed this with whole Korean National Health Insurance data which include more than 95% of the population of the Republic of Korea.

Methods: We compared the incidence of malignancy in newly diagnosed Sjögren's syndrome patients from 2004 to 2015 with age-sex matched controls and calculated hazard ratio (HR) with multiple Cox's model.

Results: Among 198,872 Sjögren's syndrome patients, cancer developed in 9883 patients (5% of newly diagnosed Sjögren's syndrome patients) after diagnosed Sjögren's syndrome. The duration from diagnosis of Sjögren's syndrome to development of malignancy was 5.4 year and their mean age was 55.2 years old. Malignancy incidence was higher in men, increased with age from the forties. It was also higher in patients who smoking or smoked, drinking more than 3times a week, and having history of malignancy (HR; 1.588, 95% CI; 1.405~1.794). The