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.