At the end of the review, 48% of the treatments were still in use, while 52% had stopped for various reasons: 20% ineffectiveness, 12% side effects, 12% maintained complete remission. The remaining low percentage was due to death, pregnancy, or study entry.

The side effects that led to a change in treatment was: non-immune hematological disorders in 4.1% (14% of tocilizumab, 7% of rituximab and 6% of vedolizumab), immune disorders in 3.8% (6% of secukinumab, 5% of tocilizumab and 4.5% of certolizumab), nervous system involvement in 2.4% (11.5% of golimumab, 10% of abatacept, 5% of tocilizumab), debut or worsening of heart failure in 1.4% (9, 5% of tocilizumab, 2.5% of etanercept and 1.4% of adalimumab) and cancer-related in 0.7% (2% of infliximab, 1.7% of etanercept).

Conclusion: In these 10 years of follow-up and evaluating 847 treatments, there were 10% hospitalizations due to infections ($n = 86$) causing death in 5 patients. In light of these results, and pending an exhaustive statistical analysis, we did not find high frequencies of serious side effects in our series. Very little long-term evidence exists on the safety of these drugs.

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Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3130

POS1157

CONCORDANCE BETWEEN THE QUANTIFERON-TB GOLD IN-TUBE AND TUBERCULIN TEST FOR THE DIAGNOSIS OF LATENT TUBERCULOSIS INFECTION IN PATIENTS WITH RHEUMATIC DISEASES

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Background: Patients with rheumatic diseases (RD) are at higher risk of latent tuberculosis infection (LTBI) reactivation. To detect and treat it before starting treatment, especially with biological therapies, decrease the reactivation risk. Diagnosis is carried out by the tuberculin skin test (TST) or interferon-gamma release assays (IGRAs), IGRAs might be more specific and sensitive.

Objectives: We aim to analyze the concordance between QuantiFERON-TB Gold In-Tube (QTF) and TST for the diagnosis of LTBI in patients with rheumatic diseases.

Methods: A retrospective observational study was conducted including patients diagnosed with RD screened for LTBI with both TST and QTF (2014-2018). Demographical and clinical variables at screening and at follow-up were collected. The concordance between both tests has been estimated as categorical variables using Cohen's Kappa test, considering "poor" if it is ≤ 0.20 ; "low" if $0.20 < k \leq 0.40$, "moderate" if $0.40 < k \leq 0.60$, "substantial" if $0.60 < k \leq 0.80$ and "optimal" if $k > 0.80$.

Results: 167 patients were included (57% women) with a mean age of 52 ± 16 years. 42% of them had systemic autoimmune diseases, 22% spondyloarthropathies and 36% other RD. 2 had history of past active tuberculosis (TB). At the time of screening, 46.11% were treated with GC.

LTBI was diagnosed in 35 patients: 15 had both QTF and TST positive, 16 only QTF positive and 4 only TST positive. 12 from 31 QTF positive patients were treated with GC at the time of screening. 3 from 19 TST positive patients were treated with GC at the time of screening.

After LTBI screening 62 patients received biological treatment, 4 of them had both test positive, 6 only QTF positive and 2 only TST positive. 11 received LTBI treatment according to the hospital protocol (isoniazid for 6 to 9 months). 10 completed treatment, 1 did not because of intolerance and did not receive other treatment. 1 patient with only TST positive was considered a false positive and did not receive treatment. During follow-up no TB reactivation was reported.

23 patients with LBTI received treatment other than biological therapy during follow-up, of them 8 received LBTI treatment. There was no TB reactivation during follow up.

The Kappa concordance between QTF and TST was estimated: moderated in the whole sample, poor in the patients treated with GC at screening, and substantial when the patients treated with GC at screening were excluded. Results are shown in Table 1.

Table 1. Kappa concordance between QTF and TST.

	TOTAL SAMPLE	PATIENTS WITH GC AT LTBI SCREENING	PATIENTS WITHOUT GC AT LTBI SCREENING
Number of coincidences (p1)	147 (88.02%)	64 (83.12%)	83 (92.22%)
Number of randomly expected coincidences (p _e)	124.1 (74.28%)	62.9 (81.73%)	61.8 (68.62%)
Kappa = p1- p_e / 1- p_e	0,534	0,117	0.752
IC 95%	(0.358- 0.710)	(-0.154- 0.305)	(0.579- 0.926)

Conclusion: QTF seems to be the most appropriate LTBI screening test in patients with RD treated with GC. Screening and treatment of LTBI in patients with RD treated with or without biological agents was effective in reducing TB reactivation.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3157

POS1158

THE SPECTRUM OF NON-TUBERCULOUS OSTEOARTICULAR INFECTIONS IN A RHEUMATOLOGY DEPARTMENT DURING THE YEARS 2010-2020: A RETROSPECTIVE STUDY OF 102 CONSECUTIVE CASES IN A SINGLE CENTER

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Background: osteoarticular infections (OAI) are characterized by a large variety of sites, causative microorganisms, source and route of infection, risk factors and also by the fact that several medical specialties are involved in diagnosis and treatment. These characteristics are subject to changes over the time.

Objectives: to describe the spectrum of non-tuberculous OAI in the absence of OA material, including native septic arthritis (SA) and non-postoperative SA or infectious spondylodiscitis (SPDI) during the years 2010-2020. This includes demographics, comorbidities, site of infection, causative microorganisms, source of infection, diagnosis, treatment procedures and mortality.

Methods: medical records of patients aged 18 years old or above who were diagnosed with a non-tuberculous OAI in the Department of rheumatology of our hospital during the 2010-2020 period were selected and retrospectively reviewed. OAI with the following characteristics were excluded: SA on prosthetic joints, postoperative SA or SPDI, osteomyelitis, brucellosis, Lyme disease. Only proven cases where included on the basis of an isolated pathologic organism at the site of infection and/or in the blood (with typical clinical, biological and imaging features).

Results: There were 102 consecutive patients (males 62%), aged 62.5 ± 16.8 years, with an IMC of 25.1 ± 5.2 . Peripheral SA where observed in 52 cases, SPDI in 33 cases, non-peripheral SA in 10 cases (sacroiliitis 5, pubic symphysisitis 2, sternoclavicular 2, posterior interapophyseal 1); in 7 patients, there was an association of SPDI and peripheral SA. At least two non-contiguous sites were involved in 22 patients (21.5%). The sites of the positive sample where: osteo-articular (synovial fluid, vertebral biopsy) in 47 cases; blood in 28 cases; both of them in 27 cases.

In the 102 cases, 105 microorganisms grew in culture including one *Candida glabrata*. The following bacteria where responsible in the other cases: 42 *Staphylococcus aureus* (including 3 cases of methicillin resistant); 7 coagulase-negative *Staphylococcus* spp.; 6 Group A *Streptococcus*; 12 group B *Streptococcus agalactiae*; 8 groups C/G *Streptococcus*; 3 group D *Streptococcus gallolyticus*; 2 *Streptococcus pneumoniae*; 1 *Neisseria gonorrhoea*; 8 enterobacteria; 3 *Enterococcus faecalis*; 3 *Pseudomonas aeruginosa*; 3 *Haemophilus*; 6 others species (2 *Parvimonas micra*, 1 *aerococcus urinae*, 1 *Nesseiria bacilliformis*, 1 *bacteroides fragilis*, 1 *campylobacter fetus*).

The most frequent host risk factors were: diabetes (21%), inflammatory/auto-immune disease (10%; including 3 rheumatoid arthritis), chronic renal insufficiency

(CC<30ml/mn) (6%), active cancer with local or general extension (6%), immunodeficiency state (SCID revealed by OAI in 2 cases). Three patients were on biological therapy.

The source of infection was known in 76 cases: skin infection in 27; urinary tract infection in 17; joint infection in 7 cases; dental infection in 6 cases; infected vascular material in 6 cases; abdominal infection in 5 cases; genital infection in 3 cases; ENT infection in 3 cases; pulmonary disease 2 cases.

Mean duration of symptoms ranged from 13 days for peripheral SA to 39 days for SPDI. Fever ($\geq 38^\circ\text{C}$) was present in 52% of cases. Mean CRP was 182 ± 128 mg/l. Blood cultures were positive in 55.5%. There was only one case of infectious endocarditis. All patients were treated with antibiotics with a mean duration of 10.2 ± 5.6 weeks. Orthopedic surgery was proceeded in 67% of peripheral septic arthritis and in 10% of the other OAI. Six patients were admitted in the intensive care unit; 4 patients died (4.3%). Mean length of hospitalization was 28.6 ± 15 days. **Conclusion:** in the years 2010-2020, non-tuberculous OAI represents a regular cause of hospitalization in rheumatology. Iatrogenic origin accounts for 13% of cases and urinary tract infection for 17%. *Staphylococcus* species are involved in only 48% of cases and *Streptococcus* species in 30%.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3569

POS1159

THE ROLE OF URINARY TRACT INFECTIONS AS A SOURCE OF OSTEOARTICULAR INFECTIONS IN A RHEUMATOLOGY DEPARTMENT DURING THE 2010-2020 PERIOD: A RETROSPECTIVE STUDY

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Background: There are several sources of infection in the pathogenesis of osteoarticular infections (OAI). Urinary tract infections (UTI) have rarely been involved whereas skin infection and *Staphylococcus aureus* represent the classic pair.

Objectives: To describe the role of UTI as the source of infection in OAI including septic arthritis (SA) on native joints and infectious spondylodiscitis (SPDI). To compare characteristics of these cases with those of others source and those without any known source.

Methods: Medical records of patients aged 18 years old or above who were diagnosed with a non-tuberculous OAI in the department of rheumatology of our hospital during the 2010-2020 period were selected and retrospectively reviewed. The following cases were excluded: SA on prosthetic joint, OIA on surgical material, osteomyelitis, post-operative OAI, SA after joint injection, brucellosis, Lyme disease. Only proven cases where included on the basis of an isolated pathologic organism at the site of OAI infection and/or in the blood (with typical clinical, biological and imaging features). Usually the OAI was considered of urinary source if the same microorganism grew in urine and the OA/ blood sample. Cases with probable urinary source were also included on the basis of the type of microorganism and a history of UTI and/or urologic surgery and/or recent antibiotic therapy.

Results: 95 consecutive cases of proven OAI were included. There were 17 cases (18%) of urinary origin. In 12 cases the same micro-organism grew in urine and OA/blood culture: 5 methicillin sensitive *Staphylococcus aureus*, 2 *Streptococcus Gallolyticus* (associated with *E. Coli* in one case), 1 *Escherichia Coli*, 1 *Klebsiella pneumoniae*, 1 *Enterococcus faecalis*, 1 *aerococcus urinae*, 1 candida glabrata. Five patients had a probable urine source. In one patient with SPDI and an history of recurrent UTI, blood culture grew *E. Coli* whereas urine culture grew *Enterococcus faecalis*. In 4 cases, urine was sterile but a sample (OA in 3, blood in 1) was positive for *E. Coli* (n=2) or *Pseudomonas aeruginosa* (n=2). The type of OAI was: SPDI in 10 cases, peripheral SA in 4 cases, both of them in one case and pubic symphysisitis in 2 cases. Blood culture was positive in 10 cases and OA sample in 9 cases. Demographics characteristics were: male 59%; age 68.7 ± 11 years. Risk factors were: diabetes 29%; cancer treated with cytotoxic chemotherapy 2 cases; inflammatory disease 2 cases; urological disease and/or recurrent UTI in 59%; immunodeficiency 1 case. Duration of symptoms was 47.1 ± 50.7 days. Urinary symptoms were present in 29% of patients and fever in 47%. There was no case of infectious endocarditis. Surgical intervention was realized in only one patient. No patient has been admitted in intensive care unit and no patient died. Length of hospitalization was 28 ± 8.5 days. Duration of antibiotic therapy was 13.6 ± 9 weeks. One patient with pubic symphysisitis was not cured.

The comparison between the group of OAI with urinary source (n=17) and the groups with another primary source of infection (n=52) or no known source of infection (n=26) shows in the first one: a higher prevalence of SPDI (59% vs 34% and 19% respectively), an older age (68.7 years vs 61.9 and 59.7 respectively), a higher prevalence of diabetes or cancer, a longer duration of symptoms (47.1 ± 50.7 days vs 21.9 ± 29.6 and 22.5 ± 25.4 respectively) and a lower mean value of CRP (156 ± 135 mg/l vs 182 ± 124 and 180 ± 140 respectively). A UTI was detected in 76% of OAI of urinary source but also in 13% of other cases (including *E. Coli* 5 cases).

Conclusion: In the years 2010-2020, UTI was responsible for 18% of non-tuberculous OAI as we defined them in this study. A UTI does not demonstrate the

responsibility of the microorganism isolated. Thoracolumbar SPDI is the main type. This relatively high frequency has not been reported before and is probably the consequence of the increasing population of aged patients with risk factors and urologic diseases. Clinicians have to be aware of it and prevention is required.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3611

POS1160

BRUCELLAR SPONDYLODISCITIS: CLINICAL AND MAGNETIC RESONANCE IMAGING FINDINGS

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Background: Osteoarticular involvement is one of the most common complications of brucellosis and it can occur in up to two thirds of patients infected. Vertebral involvement during brucellosis is considered not only as the most prevalent localization but also as the most severe one.

Objectives: The aim of the present study was to describe the clinical and the magnetic resonance imaging features of brucellar spondylodiscitis.

Methods: We conducted a retrospective study including 21 patients who have been hospitalized for spinal brucellosis from 1998 to 2019. The diagnosis of brucellosis was based on clinical symptoms, MRI findings and isolation of brucella species in blood or tissue specimens and/or a positive Wright agglutination test.

Results: Twenty-one patients were included. The mean age was 57.5 years [33-74] (13 males and 8 female). The geographical origin of the patients was rural in 76% of the cases. The median duration of symptoms progression before diagnosis was 4.5 months [1-8]. The main symptom leading to seek medical care was an inflammatory back pain and it was found in all cases. It was associated with unilateral radiculopathy in 8 cases and with a bilateral radiculopathy in 1 case. The other clinical features found were fever in 17 patients, sweats in 14 cases, weight loss in 10 cases and hepatomegaly in 1 patient. The physical examination revealed tenderness on palpation in 12 cases, a motor weakness of the two lower limbs in 2 cases. Brucella agglutination test was $\geq 1/160$ in all cases. Blood cultures were negative in all cases. The median erythrocyte sedimentation rate (ESR) and serum C-reactive protein level were 40 mm and 11 mg/dl respectively. Spondylodiscitis was located in the lumbar dorsal and cervical spine in respectively 10, 8 and 3 cases. The most affected level was the L4-L5 level in 5 cases followed by the T10-T11 level in 3 cases. The involvement of more than 2 vertebrae was found in 4 cases. Associated sacroiliitis was found in one patient. All MRI images of the affected vertebrae showed hypo intense signal on T1 weighted image and hyper intense signal on T2 weighted image. Disc space narrowing was found in 8 cases. Vertebral body osteolysis was found in 10 cases. Epidural collection was documented in 3 cases with a size up to 5 cm. Paravertebral and peri-vertebral abscesses were detected in 5 cases. Intradiscal abscesses were observed in 3 cases. Cord compression and involvement of root nerve were noted in respectively 5 and 1 cases. Biopsy was performed in 5 cases, but bacteriological examination was contributory to the diagnosis in 1 case. All patients received antibiotic treatment with a combination of two or three drugs, corticosteroids were prescribed in 5 patients and one patient underwent a surgical intervention. The evolution was good 16 in patients, three patients suffered from chronic back pain, one patient had persistent neuropathic pain and one patient had paresis.

Conclusion: Brucella spondylodiscitis is still a serious public health problem in developing countries. MRI findings associated with clinical symptoms may establish the diagnosis even if bacteriological examinations are negatives

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.4153

COVID-19

COVID-19

POS1161

A CITIZEN SCIENCE APPROACH TO CAPTURE POOR MENTAL HEALTH RELATED TO COVID-19 IN RHEUMATIC PATIENTS AFTER CONFINEMENT DURING PANDEMIC IN ITALY

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