**SAT0408**

**SAFETY OF CONCOMITANT TREATMENT WITH DENOSUMAB AND OTHER BIOLOGICAL DRUGS**

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**Background:** Denosumab (DB) is a monoclonal antibody to RANK ligand that, like all biological drugs, can be associated with an increased risk of infections. However, there are few studies concerning the risk of infection in these patients treated concomitantly with DB and other biologic drugs.

**Objectives:** This study aims at determining whether the treatment with biological drugs and DB combined is associated with an increased risk of adverse effects in patients with autoimmune diseases.

**Methods:** Retrospective observational study of patients treated with DB combined with other biological drugs at the Hospital of León between 2010–2017. For proper patient selection, the data obtained from the medical prescription program of primary care and the data from the registry of outpatients and walk-in patients of hospital pharmacy were cross-referenced.

To determine the increased risk, a control group of patients treated both with bisphosphonates (BF) and with biological agents was selected.

The data collected in both groups were: age, sex, diagnosis, comorbidities and other prescribed drugs. Infection, tumour or other adverse effects appeared three months, six months, one year and two years after starting the concomitant treatment. When performing the statistical analysis, it was analysed the time elapsed until the first adverse effect appeared.

**Results:** A total n of 28 patients was registered. 16 were treated with BF and biological agents, and 12 were treated with DB and other biological drugs. The prevalence of women was higher in both groups (87.5% BF, 91.7% DB). The mean age at the beginning of the concomitant treatment was similar, being 68.1±8.5 years in the BF group and 69.7±7.1 years in the DB group. All patients treated with DB were diagnosed with RA. Regarding the comorbidities, it seems that those patients treated with DB had fewer CVRF than those treated with BF (68.8% HBP in BF versus 50% in DB; 37.5% dyslipidaemia in BF versus 33.3% in DB). The biological drugs prescribed to be used concomitantly with DB were: 49.7% anti-TNFα, 37.5% Anti-TNFα and Anti-IL6, 8.3% Anti-TNFα and 8.3% tocilizumab.

In addition, there were no significant differences regarding the application time of the concomitant treatment with biological agents in the BF (35.7±26.7 months) and DB (58.6±43.7 months) groups; being in both groups similar. By comparing both groups, it is observed that those patients treated concomitantly with DB and other biological drugs, have more infections and these appear earlier in time than in patients treated with BF and biological agents (p<0.005). Only one patient in the DB group had a tumour of pulmonary nature as an adverse effect.

There were no differences in the appearance of adverse effects in patients with other comorbidities or concomitant treatments.

**Conclusions:** It seems that the treatment of DB combined with other biological drugs is associated with a greater number of adverse effects, mainly caused by infections, and having an earlier appearance.

More studies and a larger dose sample would be necessary to confirm this association and to be able to prove the relationship between comorbidities and the use of other concomitant drugs with the appearance of adverse effects.

**Disclosure of Interest:** None declared


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**SAT0407**

**MYCOBACTERIAL INFECTIONS IN A RHEUMATOLOGY UNIT OF A TERTIARY HOSPITAL**

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**Background:** Many treatments for rheumatic diseases, especially the new ones such as anti-TNF or anti-IL6 therapies, are known to increase the risk of tuberculosis (TB) and nontuberculous mycobacterial (NTM) infections.

**Objectives:** To determine the incidence of mycobacterial infections in patients of the rheumatology unit in our hospital.

**Methods:** We retrospectively reviewed the results of microbiological studies for the detection of mycobacteria requested for patients of the Rheumatology service in our hospital from January 1, 2008 to October 1, 2017. We reviewed the clinical cases in 283 adult and child cases in La Virginia, Risaralda, F. C. 100 Faculty Reviews 2016:6:360.

**Results:** We reviewed 719 samples from 311 patients. The 28 samples that were positive for mycobacteria corresponded to 16 patients (50% males, with a mean age of 58.6 years). M. avium complex (MAC) was isolated in 10 patients, M. tuberculosis complex (MTB) in 4 patients and M. gordonae in two cases. Seven clinical infections occurred (5% of the total studied patients), 4 due to MTB and 3 to MAC. The predominant involvement was pulmonary (5 patients, one of them also with spondylodiscitis); one patient had infectious oligoarthritis with cutaneous involvement. Six of the 7 patients with infections occurred (5% of the total studied patients), 4 due to MTB and 3 to MAC. The predominant involvement was pulmonary (5 patients, one of them also with spondylodiscitis); one patient had infectious oligoarthritis with cutaneous involvement. Six of the 7 patients with infections occurred (5% of the total studied patients), 4 due to MTB and 3 to MAC.

**Conclusions:** The incidence of mycobacterial infections in patients with rheumatic diseases has increased, coupled with prolonged corticosteroid therapy and another associated with and methotrexate in other two.

**Disclosure of Interest:** None declared


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**SAT0409**

**AEROCOCCUS URINAE: FIRST REPORT OF SEPTIC OLGIGARTHROIS AND SYSTEMIC REVIEW OF AN EMERGING GERM IN MUSCULOSKELETAL INFECTIONS**

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**Background:** Aerococcus are a bacteria not generally included in lists of musculoskeletal infections (MSK-I). They have been misidentified using standard techniques and can be detected by the sequencing of 16S rRNA (16S rDNA-PCR), Matrix-assisted laser desorption ionisation time-of-flight mass spectrometry (MALDI-TOF MS) has shown to be useful.

**Objectives:** To describe and analyse all documented cases of musculoskeletal infections caused by Aerococcus urinae and other Aerococcus sp.

**Methods:** In the framework of the study of a 63-years-old man with septic oligoarthritides caused by Aerococcus urinae (AU) (isolated in 2 synovial fluid samples), a systematic review was conducted to analyse all documented cases of aerococcal MSK-I (until December 2017), other manifestations of interest present in our case were also considered.
CHARACTERISTICS OF ABRSECESS DURING BRUCELLAR SPONDYLODISCITIS

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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 radiculalgia (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


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

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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 2008 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 joint 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.