SAT0468

INFECTIOUS SPONDYLODISCITIS IN A SPANISH REGIONAL HOSPITAL BETWEEN 2000 AND 2018: 66 CASES

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Background: Spondylodiscitis have a large spectrum of clinical manifestations. The early diagnosis and treatment of this condition are essential to give the patient the best chance of a good outcome.

Objectives: To analyze the clinical characteristics, most frequent diagnostic methods and different treatments used in spondylodiscitis (SD) in our sanitary area.

Methods: Descriptive and retrospective study of patients with the diagnosis of infectious SD (clinical or microbiological) from 2000 to 2018. In each case we studied the presence of underlying diseases, an episode of infection in the previous 6 months, way of presentation, location, diagnostic methods, treatment and evolution, comparing among different etiologies.

Results: 66 patients were diagnosed of spondylodiscitis. 44 men (24-90 years: mean 71.7). 62 were pyogenic, 3 tuberculous (TBC) SD, and 1 candida. The patients with TBC were younger (mean age: 45.3; $p < 0.05$). An underlying disease was observed in 51 patients, specially Diabetes Mellitus (DM) (31% of SD). 4 patients were Rheumatoid Arthritis patients. A previous episode of bacteremia or a primary source of infection was identified in a 34.8% of the cases, obtaining a microbiological isolation in 50/66 (75.7%) SD (46 bacterial, 3 TBC and 1 Candida). The most frequent pathogens were Gram + (G+) (51% of the total SD) being *S. aureus* and *S. epidermidis* responsible of 23/66 cases (34.8%). In the 94% of SD caused by G+, hemocultures positive were obtained, in comparison to a 55% of SD caused by G- ($p = 0.016$).

The most frequent presentation symptoms were: lumbar pain (90%), fever (53%) and neurological deficit (19%). Leucocytosis was present in only a third of the SD, observing an increase of ESR and CRP in the pyogen etiology (p no significative for low number of patients in SD group caused by TBC) and lower levels of hemoglobin, cholesterol and albumin. Lumbar area was affected in the 75.7% of SD (77% in G+ and 50% in G-). In a 13.6% of patients, more than one intersomatic space was affected, being visible the presence of an abscess in 47/66 cases (71.2%). It was necessary surgical treatment in 10/47 (21.2%). 5 patients died due to pathology related to SD (7.5%), without any correlation with a risk factor and other 5 presented a relapse in the subsequent months.

Conclusion: - The bacterial SD are the predominant group, being DM the most frequent risk factor.

- The incidence of SD due to TBC and fungi is scarce in our environment, being absent the *Brucella* etiology.
- The G+ SD usually have a previous associated bacteremia.
- The majority of the patients had pain in the presentation, but only half of them had associated fever.
- The most frequent location of SD was lumbar.
- We established a 7.5% of mortality rate in our sanitary area.

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SAT0469

THE IMPACT OF CHIKUNGUNYA VIRUS INFECTION ON QUALITY OF LIFE, FUNCTIONAL STATUS AND WORK ABILITY

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Background: Chikungunya virus (CHIKV) is a reemergent arbovirus from the Alphavirus genus transmitted by Aedes species mosquitoes. The main feature of CHIKV disease is severe polyarthralgia, which is reported in more than 90% of cases. Musculoskeletal symptoms may persist in the subacute (> 3 weeks) and chronic (> 12 weeks) phases, causing critical physical impairment and significantly impacting the quality of life of patients.

Objectives: To assess the impact of CHIKV on pain, functional status, work ability and health-related quality of life (HRQoL) in the subacute and chronic phases of the disease.

Methods: Patients with a diagnosis of CHIKV disease (confirmed by PCR or serology) with persistent musculoskeletal symptoms after 4 weeks were referred to the Rheumatology outpatient clinic and followed up from April 2018 to January 2019. Evaluation questionnaires of pain (visual analogue scale – VAS), disability (Health Assessment Questionnaire – HAQ), HRQOL (Short-form 12 – SF-12) and work ability (Work Productivity and Activity Impairment-WPAI) were applied. The assessments were divided into 3 stages according to the time of disease: subacute from 4 to 12 weeks, chronic from 12 to 24 weeks and chronic with more than 24 weeks.

Results: Of the 69 patients analyzed, 76.81% were women, mean age 49.78 ± 14.24 years, 49.27% had some comorbidity (such as hypertension and diabetes), 26 were obese and 37.68% presented a previous musculoskeletal condition. Fifty-eight patients initiated follow-up in the subacute phase, in which the average pain was 6.84 ± 1.9 , mean HAQ of 1.59 ± 0.57 , mean Physical Health Composite Scale Score (PCS) of 26.81 ± 14.3 and Mental Health Composite Scale Score (MCS) of 36.77 ± 15.9 . Of the 58 patients, 35 were employed and of these, 54.25% were absent from work during the previous week. Women presented lower scores in the mental component of SF-12 ($p = 0.0215$) and the presence of comorbidity was related to higher values reported in the pain VAS ($p = 0.026$). In the chronic phase of 12-24 weeks, 50 patients were evaluated, with mean pain 5.27 ± 2.22 , HAQ 1.16 ± 0.61 , PCS of 38.82 ± 17.26 and MCS 43.72 ± 17.13 . Thirty-two patients were employed, of which 25% were absent the antecedent week. During this stage, women presented lower values of MCS ($p = 0.0245$) and the presence of obesity was related to higher values in HAQ ($p = 0.0157$). Finally, in the evaluation of the chronic phase after 24 weeks of evolution, we included 25 patients with the mean of pain 5.64 ± 2.3 , HAQ 1.11 ± 0.49 , PCS 36.72 ± 19 and MCS 41.56 ± 17.74 . Fifteen of the 25 patients were employed and 33% were absent from work the previous week. There was no significant difference between the groups evaluated after 6 months of evolution.

Conclusion: In this study, we demonstrated that the impact of chikungunya persists after 1 month of evolution in a large number of patients. The incapacity for work caused by the disease, represented by persistent rates of absenteeism at work in an economically active age group, further aggravates the magnitude of the problem.

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SAT0470

RISK OF HOSPITAL ADMISSION DUE TO INFECTION IN PATIENTS UNDERGOING TREATMENT WITH BIOLOGICAL THERAPY: CASE-CONTROL STUDY

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Objectives: To know risk of admission due to infection in patients treated with biological drugs (DMARDs).

Methods: Case-control study, in patients admitted for infection, treated with DMARDs, from 2000-2018. As a control group, patients included, in treatment with conventional synthetic DMARDs (DMARDcs). General data (age, gender), disease (diagnosis, time evolution, DMARDs, time in DMARDs, DMARDcs); and infection (time in DMARDs to infection, location of infection, more than one admission).

Results: Of 364 patients, 48 (13%) admitted for infection: 32 (9%) treated with DMARDs, 16 (4%) with DMARDcs alone. When comparing patients admitted vs who do not, RA predominates and no differences in the treatment with DMARDs and/or DMARDcs, corticosteroids, type of DMARD or the infection.

Of 275 patients with DMARDs, 41 admissions for infection in 32 patients (11.6%); more than once. 20 (62.5%), were women, with mean age 69.2 $\pm$ 2.12 years, mean time evolution 24.5 $\pm$ 22.6 years. Diagnosis was RA: 22 (69%) patients, ankylosing spondylitis: 7 (22%), psoriatic arthritis: 3 (9%). Concomitant with DMARDs in 81% and 26% corticosteroid (mean dose: 4.6 $\pm$ 2.6 mg). The diagnosis of 41 admitted was: Pneumonia: 9 (41%), non-pneumonic respiratory infection: 5 (24%), septic arthritis: 8 (24%), urinary infection-pyelonephritis urinary o sepsis: 8 (22%), influenza A: 3 (7%), abscess, gastroenteritis and leishmaniasis in 2 (5%) each, osteomyelitis and varicella in 1 (2%) each.

The DMARDs at admission were: anti-TNF: 34 (83%) patients (adalimumab: 19/46%, etanercept: 7/17%, infliximab: 4/10%, golimumab and certolizumab: 2/5% each), tocilizumab: 4 (10%), abatacept: 2 (5%).

When comparing patients admitted for infection, patients with DMARDs has higher number of admissions (41 (67%) vs 20 (33%), $p < 0.01$), and lower percentage of DMARDs (23/72% vs 16 (100%). $p = 0.02$) and corticosteroids (14/34% vs 10/50%). $p < 0.001$, at similar doses (4.7 $\pm$ 2.6 vs 4.5 $\pm$ 2.6 mg, $p = 0.7$). The incidence of admission for infection are indicated in table.

Conclusion: 1. The prevalence of admission due to infection in DMARDs is 9% and 4% in DMARDs in monotherapy. 2. Admission predominates in RA, with a long evolution, with biological therapy. 2. The most frequent infections were respiratory origin, followed by sepsis or bacteremia and septic arthritis.

	DMARDs	DMARDs	DMARDs + DMARDs
Admission general incidence for infection	1.92 (0.88-3.58)	0.95 (0.6-1.42)	2.6 (1.55-4.05)
Admission incidence for infection in RA	4.1 (1.47-8.82)	1.16 (0.72-1.75)	2.64 (1.37-4.53)
Mean time (years) to admission due to infection ¹	7.77 (4.17-11.36)	19.17 (13.83-24.52)	6.15 (4.06-8.23)
Mean time (years) until admission for infection, in RA	9.05 (3.58-14.53)	17.95 (12.99-22.9) ²	6.6 (3.93-9.26)

¹ $p < 0.001$.

² $p < 0.001$, DMARDs vs DMARDs

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SAT0471

HIGH-RESOLUTION MELTING CURVE ANALYSIS: A RAPID AND PRAGMATIC APPROACH FOR SCREENING OF MULTIDRUG RESISTANT OSTEOARTICULAR TUBERCULOSIS (OATB)

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Background: Emergence of MDR in extrapulmonary tuberculosis (EPTB) is a major concern in endemic areas. Timely diagnosis and screening of multidrug resistance in patients of Osteoarticular Tuberculosis (OATB) is a challenge.

Objectives: To evaluate the *rhoB* gene real time PCR (RT PCR) in synovial fluid/pus samples and its comparison with MPB64 and IS6110 RT PCR for diagnosis of OATB.

Methods: Real time PCR using IS6110, MPB64 and *rhoB* genes was carried out in 150 cases of OATB and in 100 non TB control group. Out of these, 20 OATB cases were culture confirmed and 130 were clinically suspected cases. Phenotypic susceptibility testing for culture isolates was performed by standard proportion method. DNA extracted from samples of the culture confirmed cases and the suspected OATB cases confirmed by RT PCR were subjected to *rhoB* and *katG* HRM analysis for screening of MDR.

Results: The sensitivity of *rhoB* RT PCR, MPB64 RT PCR and IS6110 RT PCR was 86.5%, 86.5% and 76.5% respectively. All RT PCR were negative in the control group thus the specificity was 100%. HRM analysis detected rifampicin resistance in 10 cases of which, 8 (80%) were MDR while 2 (20%) had isolated rifampicin resistance. Of the 13 cases of isoniazid resistance detected by HRM analysis, 8 (61.5%) were MDR while 5 (38.46%) were isolated isoniazid resistant. HRM analysis detected an additional 4 MDR cases directly from the samples which were negative by culture. Subsequently, results of HRM analysis were confirmed by *rhoB* sequencing and mutation were observed at codon 531 (60%); 533 (16%); 516 (12%) and 526 (12%). *katG* sequencing revealed mutation at codon 315 (100%). There was 100% concordance in the results of phenotypic DST, sequencing results and HRM analysis.

Conclusion: *rhoB* and *katG* HRM analysis is a promising method in reliable and rapid screening of drug resistance in OATB cases in 90 minutes.

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SAT0472

THE CONTRIBUTION OF MRI IN THE DIAGNOSIS OF INFECTIOUS SPONDYLODISCITIS

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Background: Infectious spondylodiscitis is a diagnostic and therapeutic emergency, and if there is any doubt, an MRI should be performed to support the diagnosis.

Objectives: The aim of our study is to highlight the role of MRI in the diagnosis of infectious spondylodiscitis.

Methods: This is a 20-year retrospective study (1999-2019) performed at a rheumatology department, collecting cases of infectious spondylodiscitis. We have identified the epidemiological, clinical, and radiological characteristics.

Results: Our study included 106 patients, 57 men and 49 women. The average age was 55 [16; 86]. Mean disease duration averaged 4.54 months [0.23; 24]. All patients had spinal pain: lumbar in 65.09% of cases, dorsal in 17% of cases and cervical in 6% of cases. Standard X-rays showed abnormalities suggestive of spondylodiscitis in 88.67% of cases. Magnetic resonance imaging was then performed in 76.41% patients and was pathological in all cases. The abnormalities found were paravertebral abscess in 23.58% of cases, epiduritis in 10.37% of cases and association of abscess and epiduritis in 32.07% of cases. The rest of the abnormalities noted were vertebral osteolysis (8.49%), spinal cord compression (9.43%) abnormalities of the intervertebral disc with narrowing and/or signal modification (4%). The abnormalities were monofocal in 82.07% of cases and bifocal in 13.2% of cases. 78.57% of bifocal lesions were objectified in tuberculous spondylodiscitis. 82.07% of the spinal injuries were single-stage and 15.09% were bi-staged. 75% of these were of tuberculous origin. There were 2.83% of spondylodiscites up to 3 stages and all were tuberculous.

Conclusion: MRI is a great diagnostic aid during infectious spondylodiscitis. It also allows to orient towards the etiological diagnosis.

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SAT0473

MUSCULOSKELETAL STIFFNESS IN CHIKUNGUNYA DISEASE: DISTINCT FROM PAIN AND RELEVANT TO QUALITY OF LIFE

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Background: Musculoskeletal stiffness is reported to be frequent following chikungunya infection and can persist for many months after infection. However, stiffness severity and its impact is not well characterised in this disease. A stiffness patient reported outcome instrument has been developed for use in rheumatoid arthritis.

Objectives: Our objective was to assess the use of this questionnaire and importance of musculoskeletal stiffness in a cohort of chikungunya