treatment are basic supportive therapy for those patients. In some cases, surgery is needed and it can involve prognostic features.

Objectives: To analyze prognostic factors related to articular and periarticular infectious diseases.

Methods: Patients hospitalized between January and December 2019 in Rheumatology Service (CHUS) and diagnosed of articular or periarticular infectious disease were enrolled. Demographic, clinical and therapeutic data were collected.

Stata 15.1 was used to perform statistical analysis.

Results: 21 patients diagnosed of articular or periarticular infectious disease were included (138 patients hospitalized in 2019). Mean age was 57.3 years old (SD 18.2) and 76.2% were males. One cardiovascular risk factor was achieved, at least, by 71.4% (arterial hypertension the most frequent, followed by hypercholesterolemia and hyperuricemia). Gram positive cocci were identified in 76.2% of patients (*Staphylococcus aureus* in 47.6%, only one case oxacillin-resistant). A concomitant rheumatic disease was present in 4 patients (2 suffer from gout). No statistical association was found between this topic and acute-phase reactants (APR), complication rates or days of hospitalization. At hospitalization time, mean values of erythrocyte sedimentation rate (ESR) were 65.6mm (SD 30.8) and C-reactive protein (CRP) 11.7mg/dl (SD 7.7). Both have a positive association with days of hospitalization ($r_{\text{ESR}}=0.282$, $r_{\text{CRP}}=0.424$) and further, ESR demonstrates a positive correlation with this topic (CI95% -0.009 to 0.723 $p=0.05569$). Only 3 patients needed adjuvant surgery (articular infectious diseases with higher APR values). Surgery demonstrates a relationship statistically significant with articular involvement ($t=-3.72$ $p=0.00$), higher hospitalization rates ($t=-2.51$ $p=0.02$) and complication rates ($\chi^2=4.67$ $p=0.03$ as deasease, recurrence, bacteriemia, aftermath or soft tissue abscess).

Conclusion: Gout is the main rheumatic disease associated, in this study, to infectious diseases of musculoskeletal system. As opposed, to suffer a rheumatic disease isn't associate to a bad prognostic (hospitalization or complication rates). Furthermore, this cohort shows us the high prevalence of cardiovascular risk factors related with these diseases (hyperuricemia as predecessor of gout). Surgery intensifies as the main bad prognostic factor regarding days of hospitalization, complication rates and higher APR.

References:

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FRI0437

CT GUIDED NEEDLE BIOPSY IN VERTEBRAL OSTEOMYELITIS: RELIABILITY ANALYSIS AND STUDY OF WHICH FACTORS COULD INFLUENCE ON THE RESULT

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Background: Vertebral Osteomyelitis is an infectious disease of the vertebral body, also termed spondylodiscitis if the intervertebral disc is involved (which its avascular). Since the bacteriological characterization is in many times difficult and blood cultures are often negative, a bone biopsy is in most of the cases encouraged.

Objectives: The aim of this study is to analyze which factors could influence on the result of a CT guided biopsy (CTGB) in vertebral spondylodiscitis patients.

Methods: A retrospective observational study was performed including patients diagnosed of spondylodiscitis in a single center who underwent a CTGB. Demographic features and comorbidities, acute phase markers, microbiological results, radiological data, antibiotic exposure, medical complications and the clinical outcomes were also collected for analysis. Standard procedure in our center is performed by Musculoskeletal Specialized Radiologist under local anesthesia and CT control. Abscess sample is collected with a 18G needle with coaxial technique, trying to obtain at least 3 samples. For discal space, a thicker needle (13.5G-15G) is used. A logistic regression including cofounding factors was performed using R software.

Results: A total of 86 were included with a mean age of 62.75 (14.98) years old and predominating male sex (68.60%). 15 patients (17.44%) presented any kind of immunosuppression. Clinical data are summarized in Table 1. Blood cultures were positive in 39.71% and sample culture showed a reliability of 49%. Organism which grew were gram + (66.67%), gram - (12.70%), mycobacteria (12.7%) and fungi (7.94%). In only 16 cases (18.6%) there was isolated the same organism in blood and on biopsy culture. From admission to procedure, a mean of 6 days was observed. Antibiotic treatment had a median value of 2 days (0, 6) and its exposure did not modified the culture positivity (IC 95% [0.274-5.211] $p=0.816$). Detailed analysis was performed looking for the influence of the days of exposure, which also failed (IC 95% [0.939-1.101] $p=0.747$). The longer duration of the pain was related to a higher probability of obtaining a negative result on the biopsy (IC 95% [1.004-1.035] $p=0.026$) (graphic 1). Neither fever ($p=0.303$) or higher CRP (IC 95% [0.992-1.006] $p=0.761$) value modified the culture result.

Table 1. Demographic and clinical characteristics.

	N=86	%
Clinical history		
High blood pressure	42	48.84
Diabetes Mellitus	19	22.09
Liver cirrhosis	16	18.60
Chronic kidney failure	13	15.12
Active Systemic Malignancy*	2	2.33
Rheumatoid arthritis*	3	3.49
Spondyloarthritis*	1	1.16
HIV infection*	4	4.65
Solid organ transplant receptor*	3	3.49%
Systemic Amyloidosis*	1	1.16
Splenectomy*	2	2.33
Previous spine pathology	50	58.14
Underlying/associated endocarditis	2	2.33%

*Considered as immunosuppressed patients

Conclusion: Even in cases under antibiotic treatment, CTGB displays an acceptable reliability. The longer the length of painful period before diagnosis was related to a higher chance of obtaining a negative result on culture. This result could be explained by a greater aggressiveness of pyogenic organisms that perhaps congregate in the lesser time span instead of non-pyogenic agents, that could deliver in more silent infection.

References:

- [1] IDSA Clinical Practice Guidelines for the Diagnosis and Treatment of Native Vertebral Osteomyelitis in Adults

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POST-CHIKUNGUNYA CHRONIC ARTHRITIS - SHARING OF BANGLADESH EXPERIENCE OVER ONE YEAR FOLLOW UP OF 60 PATIENTS

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