

annual screening. Wide studies should be designed in order to evaluate the efficacy of re-screening.

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#### AB0903 LABORATORY FINDINGS IN PATIENTS WITH CHIKUNGUNYA FEVER AND CHRONIC JOINT SYMPTOMS – A LONGITUDINAL ASSESSMENT

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**Background:** Chikungunya Fever (CF) is an arbovirosis with a high attack rate, affecting large proportion of the population in its outbreaks (85%–90% of infected are symptomatic). In general, it is recommended to carry out laboratory tests when patients reach subacute phase or show signs of severity at the beginning of the disease. There are few studies showing which laboratory results are relevant and their clinical applicability.

**Objectives:** To recognize the most frequent findings of laboratory tests in a cohort of patients with CF and chronic joint symptoms and to correlate laboratory results with clinical data.

**Methods:** Patients with diagnosis of CF (clinical and epidemiological criteria) were followed in a cohort study. Clinical data and laboratory tests were collected in a regular schedule in the first months of the disease.

**Results:** A total of 54 patients were enrolled during 10 months, persistent changes in some patients were recorded (table).

Table 1. Persistent laboratory findings in patients with Chikungunya Fever in subacute/chronic phases

> 50%	Decreased vitamin D (53.8%)
40%>50%	Increased CRP (43.3%)
30%>40%	Decreased: HDL cholesterol (36.5%), eosinophil (37.3%),
20%>30%	Increased: glucose (28.3%), GGT (27.4%), $\gamma$ globulin (27.4%), glycated hemoglobin (26.4%), calcium (25.4%), alkaline phosphatase (24.5%), $\beta$ globulin (23.5%), cholesterol (23.0%) Decreased: total bilirubin (20.0%)
10%>20%	Increased: triglycerides (17.6%), LDH (17.3%), ferritin (13.7%), ALT (13.2%), direct bilirubin (12.0%), $\alpha 2$ globulin (11.7%) Monocytosis (11.1%), Lymphocytosis (10.0%)
5%>10%	Hyperchloremia (8.0%) Increased: neutrophils (7.54%), LDL (5.88%), folic acid (5.88%), uric acid (5.76%), platelets (7.54%) Decreased: CPK (7.54%), albumin (5.88%), neutrophils (9.43%) Hyponatremia (5.88%),

CRP = C reactive protein, GGT = gamma glutamyl transferase, LDH = lactate dehydrogenase, ALT = alanine aminotransferase, CPK = creatine phosphokinase.

In the subacute phase, the ESR (erythrocyte sedimentation rate) correlated with number of swollen joints ( $r=0.45$ ,  $p=0.03$ ), VAS (visual analogue scale) of pain ( $r=0.72$ ,  $p=0.0002$ ), VAS patient's general health ( $r=0.50$   $p=0.02$ ), VAS by physician ( $r=0.45$ ,  $p=0.03$ ) and with HAQ ( $r=0.51$ ,  $p=0.01$ ). In subacute phase the VAS of morning stiffness correlated with CRP ( $r=0.46$ ,  $p=0.02$ ). In chronic phase, CRP correlated with VAS of pain ( $r=0.47$ ,  $p=0.02$ ) and there was a reversal in the correlations between ESR and VAS of general health of the patient ( $r=-0.54$ ,  $p=0.03$ ), VAS of physician ( $r=-0.52$ ,  $p=0.02$ ), swollen joints ( $r=-0.46$   $p=0.03$ ) and HAQ ( $r=-0.56$ ,  $p=0.01$ ). ESR and SF-12 (mental component) were correlated ( $r=0.61$ ,  $p=0.01$ ).

**Conclusions:** Levels of ESR correlated with measures of pain and worsening of functional capacity in subacute phase. In chronic phase, there was reversal of this correlation, indicating that ESR does not reflect clinical worsening of patients at this stage. Further clinical studies are needed to better analyze other alterations.

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#### AB0904 FUSOBACTERIUM NECROPHORUM MASQUERADING AS NEISSERIA IN SEPTIC ARTHRITIS

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**Background:** Infective arthritis with fusobacterium is rare and difficult to diagnose & initially can be misidentified as Neisseria arthritis based on microscopy results. It is associated with Lemierre's Disease & is important to recognise.

**Objectives:** To demonstrate that a "linked up" approach between culture and PCR in the analysis of joint fluids will provide timely identification of the organism and allow for appropriate antibiotic use & to show the utility of bacterial 16S rRNA PCR in sterile site fluid analysis.

**Methods:** This is a case study of a pyogenic wrist infection with *Fusobacterium necrophorum* in the rheumatology department

**Results:** Our report follows a 17 year old caucasian female presenting with a history of left wrist pain, swelling and flu-like symptoms. Microscopy of joint aspirate revealed gram negative diplococci. Empirical antibiotic therapy, Ceftriaxone, was used to cover for potential gonococcus. Real-time PCR testing was negative for both gonococcus and meningococcus. However a real-time PCR assay targeting the bacterial 16S ribosomal RNA gene detected bacterial DNA<sup>1</sup>. The patient did not clinically improve and further aspirate remained positive for the 16S rRNA gene target. As all joint aspirates and other specimens remained culture negative, the decision was taken to attempt bacterial 16S rRNA PCR and sequencing on DNA extracted directly from the joint aspirate. The sequences recovered were identified as *F. necrophorum*. This was eventually confirmed by anaerobic culture of the initial joint aspirate. A suspicion of Lemierre's disease (thrombophlebitis of the internal jugular vein and/or bacteraemia) was raised, however jugular venous dopplers were normal.

The outcome was favourable following guided antibiotic treatment.

**Conclusions:** This case illustrates that *F. necrophorum* infection may occur with unusual or disseminated presentation, but in the absence of the classical features of Lemierre's syndrome. The possibility of Neisseria was recognised early & appropriate empirical antibiotic cover was used. This is important given the emergence of virulent meningococcal serogroup W ST11 strains causing infections with unusual presentation (including septic arthritis) in the UK<sup>2</sup>. Reliance on microscopy findings alone could have led to an incorrect diagnosis of gonococcal septic arthritis – a condition with very low complication rates and excellent prognosis. In contrast, non-gonococcal septic arthritis is a medical emergency with significant morbidity and mortality<sup>3</sup>. The *F. necrophorum* infection in this case could have had fatal complications if it had been managed as a gonococcal infection. Secondly this case highlights the utility of bacterial 16S PCR and sequencing directly from a normally sterile site, allowing accurate diagnosis and appropriate treatment.

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#### AB0905 THE EFFICACY OF TRIMETHOPRIM/SULFAMETHOXAZOLE TO PREVENT ACUTE-ONSET DIFFUSE INTERSTITIAL LUNG DISEASES WITH CONNECTIVE TISSUE DISEASE PATIENTS

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**Background:** Acute-onset diffuse interstitial lung diseases (AoDILD) are highly mortal condition and their cause are often difficult to discriminate. Trimethoprim 80mg/sulfamethoxazole 400mg single strength (TMP-SMX SS) has been used for Pneumocystis Pneumonia (PCP) prophylaxis and highly effective but the dose was originally developed in pediatric cancer patient's study and there is possibility that in connective tissue disease (CTD) patients, less dose can be as effective.

**Objectives:** The aim of this study is to examine hypothesis that taking TMP-SMX for PCP prophylaxis with CTD also have prophylactic effect against AoDILD and how about those effect in under dose patients for some reason

**Methods:** We retrospectively investigated data from 621 patients with TMP-SMX for PCP prophylaxis during and 43 patients who admitted for either acute respiratory failure/acute interstitial pneumonia/PCP/drug induced pneumonitis during 2004–2016 in our department.

**Results:** There was no single case who admitted to hospital due to AoDILD with TMP-SMX for PCP prophylaxis. There were 34 cases admitted for AoDILD and 9 cases (26%) were dead. Among 25 cases, 5 cases developed AoDILD after TMP-SMX cessation. 70 cases were taking under dose prophylaxis for some reasons but there was also no AoDILD case.

**Conclusions:** Taking TMP-SMX for PCP prophylaxis may also have prophylactic effect against AoDILD. And those effect may also exist even under dose.

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#### AB0906 PYOGENIC SEPTIC ARTHRITIS: IS THERE A DIFFERENCE WHEN GERM IS NOT IDENTIFIED?

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**Background:** Pyogenic septic arthritis (PSA), defined by the presence of living microorganisms in the affected joint, is a therapeutic emergency. Germ isolation is a primordial step in the diagnostic and therapeutic approach.

**Objectives:** The aim of this study was to study the differences between PSA with positive and negative bacteriology.

**Methods:** This is a retrospective study which included medical records of patients treated for PSA in a rheumatology department over seventeen years. The epidemiological and paraclinical data were recorded. We used the SPSS 11.5 for the statistical analysis to compare patients with (group 1) and without an isolated causative agent (group 2).

**Results:** We evaluated 49 patients with a diagnosis of PSA. They were 26 (53.1%) men and 23 (46.9%) women. The average age was 55±18.7 years (ranging from 15 to 95 years). Comorbidities were observed in 31 (63.3%) patients. The onset of symptoms was acute in 37 (75.5%) patients and progressive in 12 (24.5%) patients. The most common symptoms were joint pain and stiffness (100%) and functional impotence (87.8%). All patients were treated with double or triple antibiotics. Among the studied patients, 27 (55.1%) had negative culture results. Statistical analysis used to compare cases with an isolated pathogen to those cases without an isolated pathogen, noted female predominance in group 2 but there was no statistically significant difference (p=0.252). Patients in group 1 and group 2 had a comparable mean age (p=0.08). Patients in both groups had comparable risk factors for PSA (p=0.549). Acute onset was more common in group 2 (51.4% versus 48.6%) but without a significant difference (p=0.507). Biological inflammatory syndrome was more frequent in group 2 but with no statistically significant difference (p=0.235). The study of the appearance of the synovial fluid did not demonstrate a statistically significant difference between the two groups (p=0.125). The abnormalities of standard x-rays were similar in both groups (45.2% in group 1 versus 54.8% in group 2, (p=1)). The statistical study of all the other variables didn't show differences between the two groups.

**Conclusions:** PSA was not associated with major differences if the germ was or not isolated.

**Disclosure of Interest:** None declared

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#### AB0907 CONTRIBUTION OF IMAGING IN THE DIAGNOSIS OF INFECTIOUS SPONDYLODISCITIS

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**Background:** Infectious spondylodiscitis represents a diagnostic and therapeutic emergency. Imaging is fundamental in the management of the disease.

**Objectives:** The aim of this study is to analyze the contribution of imaging in the diagnosis of infectious spondylodiscitis.

**Methods:** This is a retrospective study which included medical records of patients treated for psoas abscess during the twelve past years [2006–2016]. Epidemiologic, clinical, and imaging data (Standard X ray, Computed tomography (CT), magnetic resonance imaging (MRI)) were recorded and analysed.

**Results:** Ninety patients were included in this study. The average age was 55 years [16–86] with an even distribution between males and females. Mean symptom duration was of 4 months. The most frequently isolated pathogen was *Mycobacterium tuberculosis* (63.3%), followed by pyogenic germs (21.2%) and *Brucella* (15.5%). Standard X ray were pathological in 89% of cases: showed narrowing of intervertebral space (72.2%), endplate destruction (42.2%), erosions of vertebra (13.3%), opacity (12.2%), vertebral fracture (10%), paravertebral spindle (5.5%) and posterior archlysis lesion (2.2%). Standard radiographswere normal in 12 cases and in 1 case, spinal CT showed vertebral destruction with "mirror-image". Spinal MRI, performed in the remaining 11 cases, confirmed the diagnosis in all cases and showed paravertebral collections (n=3), epiduritis (n=3), psoas abscess (n=2), microabscess (n=1) and spinal compression (n=1). In case of posterior archlysis lesion and vertebral fracture, MRI confirmed the diagnosis by showing paravertebral collections.

**Conclusions:** Management of infectious spondylodiscitis has benefited from advancements in imaging allowing an early diagnosis and treatment.

**Disclosure of Interest:** None declared

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#### AB0908 BIOLOGICAL AND RADIOGRAPHIC FINDINGS IMPACT ON GERM IDENTIFICATION DURING SEPTIC ARTHRITIS

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**Background:** Septic arthritis may cause damage and inflammation in short period of time. The germ determination must be the first objective to allow targeted treatment. Bacteriological tests remain negative in 7–35% of cases of septic arthritis.

**Objectives:** The aim of this study was to determine the impact of biological and radiographic findings on germ identification during septic arthritis.

**Methods:** This is a retrospective study which included medical records of patients treated for septic arthritis during the seventeen past years. Epidemiologic, clinical, biologic, bacteriologic and therapeutic data were recorded and analysed. We made a comparison between patients who had a germ identified (Group 1) with whom who hadn't (Group 2).

**Results:** Fifty nine patients with septic arthritis were included in this study. The mean age of the patients was 54.6±19 years and a sex ratio (F/M) of 0.9. Causative agents were isolated in 27 patients (45.7%). Biological data showed leukocytosis in 25 (42.4%) patients. Mean leukocyte count was 10673±5003. Leukopenia was noted in 1 case. One patient had neutropenia. Lymphopenia was observed in 4 patients (6.7%). Two patients had hyperlymphocytosis. Anemia, mainly of the inflammatory type, was noted in 47 cases (79.66%). The mean C-reactive protein (CRP) was 150.6±106, and the mean erythrocyte sedimentation rate (ESR) was 104.9. Twenty three patients (38.9%) had other perturbations of the biological balance: cholestasis (n=1), cytopenia (n=4) and renal perturbation (n=15). Radiological signs suggestive of septic arthritis were observed in 40 cases (67.8%): articular pinching (28.8%), geodes and erosions (14%), total destruction of the joint (0.67%) or thickening of the soft parts at the beginning (11.86%). Ultrasound exam, performed in 22 cases, showed articular effusion (n=15), synovial thickening (n=8), a soft tissue collection (n=3), and periarticular erosion (n=2). CT, performed in 6 patients, was normal in one case. The abnormalities noted were: collection of soft parts (n=2), joint effusion (n=2), bone demineralization (n=1), bone erosion (n=1) and osteochondritis (n=1). MRI, performed in 2 patients, was pathological in both cases and showed synovitis and cortical erosion with medullary edema. The comparison of the 2 groups according to germ identification showed that biological inflammatory syndrome was more frequent in group 2 (100% versus 96.8%) but without a statistically significant difference (p=0.346). Mean value of CRP and ESR were comparable in the two groups (p=0.65 and 0.19). The mean value of hemoglobin was comparable in the two groups (10.87 versus 10.54 g/dl) (p=0.566). It was similar about the blood count. Abnormalities of standard x-rays were similar in both groups (70.4% in group 1 versus 65.5% in group 2) (p=0.784). The most frequent radiological abnormality in the two groups was articular pinching (40.7% in group 1 and 46.8% in group 2).

**Conclusions:** In our study, the biological and radiological data had not shown any impact on the identification of the germ.

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#### AB0909 SEPTIC PSEUDARTHROSIS OF THE HUMERUS TREATMENT USING ORTHOFIX EXTERNAL FIXATION

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**Background:** The septic pseudarthrosis of the humerus is a very difficult process that poses a twofold challenge: the infection eradication while trying to get consolidation.

**Objectives:** The aim of this study was to analyze the results of the treatment of septic pseudarthrosis of the humerus with Orthofix monolateral axial external fixator.

**Methods:** This is a retrospective study which included 17 medical records of patients treated for septic pseudarthrosis of the humerus debridement and stabilization by Orthofix over a period of 7 years.

**Results:** They were 13 women and 4 men with a mean age 44 years. The fracture site was most often at the distal half of the humerus. The initial treatment of the fracture was pinning or intramedullary nailing. Surgical management of pseudarthrosis was performed 3.5 months after the first surgical procedure. All cases had a bone debridement and stabilization with a monoplane Orthofix axial external side. Fifteen cases had also a bone graft. The mean period of stabilization was 7 months. Patients were evaluated clinically and radiologically each month. At the mean of three years of follow-up, we obtain osseous consolidation for all patients in the average of seven months. All patients underwent rehabilitation of the shoulder and elbow after treatment. The functional result were excellent results in 47% of cases, good results in 35.3% of cases and poor results in 17.7%. The Quick DASH score average was 28±5. The average of the elbow motion was 109 ° of flexion with an average of 30 ° of deficit in extension. The useful range of motion of the elbow was preserved in 14 patients. There was a shaft angulation under 20 ° in 3 cases and over 20 ° in 3 other cases. We noted