Conclusions: The preliminary results show good tolerability and efficacy of inactivated split-virus influenza vaccine in RA, AS, and SS patients. Future studies on larger patient populations are warranted for more complete evaluation of vaccine safety and efficacy.

Disclosure of Interest: None declared

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**SAT0396**

**THE RISK FACTORS OF SERIOUS INFECTION IN PATIENTS WITH RHEUMATOID ARTHRITIS**

E. Hasegawa1,2, D. Kobayashi1, S. Ito1, I. Narta2, K. Nakazono3, D. Kobayashi1, S. Ito1, I. Narita2, K. Nakazono1.

Background: Although life expectancy has improved for many rheumatoid arthritis (RA) patients, serious infection is one of the major causes of mortality. Undernutrition is widely known to be a risk factor for infection; however, the association between undernutrition and infection in RA patients is not well known.

Objectives: The aim of this study was to identify the risk factors associated with infection requiring hospitalisation in RA patients.

Methods: We retrospectively analysed data obtained from 74 patients with RA (male, n=21; female, n=53; age 74±12.6), who were admitted to our hospital between 2016 and 2017 for infection (infection group). Among the patients who experienced multiple infections during this time, only the first infection was included in this study. We also recruited control RA patients (n=222) who were matched for age, gender and disease duration, with a ratio of 1:3 (non-infection group). The details of the patients’ infections, clinical characteristics (including nutritional conditions), and RA treatment were obtained from their clinical records. The nutritional condition was assessed based on the body mass index (BMI), serum albumin (Alb) level, total lymphocyte count (TLC), haemoglobin (Hb) level, controlling nutrition status (CONUT) score, and prognostic nutritional index (PNI). Differences between each group were compared using a nonparametric Wilcoxon’s rank sum test for continuous variables and Fisher’s exact test for categorical variables. Multiple regression analyses were performed to determine the factors associated with the development of serious infection. We selected seven candidate factors: Steinbrocker’s classification (Stage); BMI; <18.5, CONUT score >5; DAS28-ESR; 3.2, use of methotrexate, use of prednisolone, use of biologics.

Results: The respiratory tract was the most frequent site of infection (n=33, 44.6%), followed by the urinary tract (n=14, 18.9%), skin (n=13, 17.6%), bones and joints (n=5, 6.8%), and gastrointestinal tract (n=3, 4.1%). Seven patients died due to infection (n=7, 9.5%). There were no SLE exacerbations with definite casual relationship with the vaccination.

Conclusions: Obtained results demonstrate the safety and immunogenicity of 23-valent pneumococcal vaccine in SLE patients during one year FUP. The negative effect of bDMARDs on post-vaccination response was noticed. Future studies of vaccine efficacy and safety are needed in larger SLE populations.

Disclosure of Interest: None declared


**SAT0397**

**SAFETY AND IMMUNOGENICITY OF 23-VALENT PNEUMOCOCCAL VACCINE IN SLE PATIENTS**

G. Tarsava1, B. Belov, D. Bukhanova, S. Solovjev, E. Aseeva, T. Popkova, M. Chernikasova, V.A. Nasonova Research Institute of Rheumatology, Moscow, Russian Federation

Background: Immunisation with pneumococcal vaccine is the key prophylactic measure to protect patients with systemic lupus erythematosus (SLE) against severe respiratory infections.

Objectives: To study the efficacy and immunogenicity of 23-valent polysaccharide pneumococcal vaccine in SLE pts.

Methods: The study included 30 SLE pts, 27 females, 3 males, aged 19–62 y, the follow up (FUP) was 12 mo. Disease activity at vaccination was high – in 1 pt, moderate – in 4 pts, and low – in 20 pts; drug-induced remission – in 5. Therapy: 29 pts were on glucocorticoids (GCs), 23 – on hydroxychloroquine, 14 – on cytostatic (CS) drugs, 9 – on biologic diseases modifying anti rheumatic drugs (bDMARDs): 4 – on rituximab, and 5 – on belimumab. One dose (0.5 mL) of 23-valent polysaccharide pneumococcal vaccine was administered subcutaneously. Standard clinical examination and lab tests were performed, and vaccine immunogenicity was determined by measuring antibody (AB) levels against Streptococcus pneumoniae (VaccZymeTM PCP IG 2 panels (The Binding Site Ltd, Birmingham, UK)) at control visits.

Results: Local injection site reactions of varying intensity were registered in 19 (63.3%) pts, lasting from 2 to 7 days. One patient developed an immediate hypersensitivity reaction – the Arthus phenomenon-type. All accompanying symptoms completely resolved within 7 days with the intake of antihistaminic drug and local use of GCs. Mean (Me (25,75 percentiles)) SLEDAI scores for SLE activity prior to and 1 year after vaccination did not differ significantly: 2 (2;4) and 2 (0;4), respectively.

Mean values of SLE immunological activity parameters (a-dsDNA, C3 and C4 components of the complement) also did not differ significantly, with a visible trend for a-dsDNA reduction and complement components increase: C3 (0.86 (0.81;1.07) and 0.93 (0.86;1.05)), C4 (0.16 (0.13;0.19) and 0.18 (0.13;0.19), respectively. (table 1)

Abstract SAT0397 – Table 1. Dynamics of immunological activity parameters (Me) and SLE SLEDAI (Me) scores prior to and after the vaccination (12 mo).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Me (25,75 percentiles)</th>
<th>0,9–1,8</th>
<th>0,1–0,4</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3</td>
<td>(0,83;1,07)</td>
<td>(0,13;0,19)</td>
<td>(0,4)</td>
</tr>
<tr>
<td>C4</td>
<td>(0,9;1,2)</td>
<td>(0,13;0,19)</td>
<td>(0,4)</td>
</tr>
<tr>
<td>SLEDAI</td>
<td>(3,0;4,3)</td>
<td>(1,1;2,2)</td>
<td>(2,0;3,0)</td>
</tr>
<tr>
<td>SLEDAI</td>
<td>(1,9;3,2)</td>
<td>(1,1;2,7)</td>
<td>(1,0;2,5)</td>
</tr>
<tr>
<td>SLEDAI</td>
<td>(1,0;2,0)</td>
<td>(0,3;1,0)</td>
<td>(0,1;0,4)</td>
</tr>
<tr>
<td>SLEDAI</td>
<td>(0,86;1,05)</td>
<td>(0,12;0,19)</td>
<td>(0,4)</td>
</tr>
</tbody>
</table>

There were no SLE exacerbations with definite casual relationship with the vaccination.

Significant increase (≤2 fold vs the baseline values) of AB levels against S.pneumoniae polysaccharides was documented in 25 (83.3%) pts 1 mo post vaccination. High Ab titters still persisted 1 year post-vaccination in 19 (63.3%) pts (responders). More than 2-fold increase of anti- S.pneumoniae AB concentrations was not maintained by the end of FUP (12 mo) in 11 (36.7%) <non-responders>. 6 (20.0%) out of them were treated with GESA (4 rituximab, 3 – belimumab). 2 (10.5%) pts out of 19 <responders> were also treated with GESA (belimumab). The difference was statistically significant, p<0.0008.

Conclusions: Obtained results demonstrate the safety and immunogenicity of 23-valent pneumococcal vaccine in SLE patients during one year FUP. The negative effect of bDMARDs on post-vaccination response was noticed. Future studies of vaccine efficacy and safety are needed in larger SLE populations.

Disclosure of Interest: None declared


**SAT0398**

**SPINE IMMOBILISATION AND NEUROLOGICAL COMPLICATIONS IN VERTEBRAL OSTEOMYELITIS: RESULTS FROM A MULTICENTER PROSPECTIVE STUDY**


Objectives: The purpose of our study was to describe the complications associated with the use of spine immobilization (VO) in a French multicenter cohort of spine osteomyelitis.

Methods: A multicenter retrospective-cohort study was conducted in 30 French hospitals (12 university hospitals, 18 others) to describe complications of VO in spine osteomyelitis.

Results: A total of 194 patients were included in this study. The median age was 43 years (range 4–80) and 159 patients were male (82.2%). The commonest complication was neurological (45.5%), followed by bone (26.9%) and joint (16.5%). Spinal column collapse occurred in 26 patients (13.4%). The most common neurological complication was radiculopathy (18.5, CONUT score >3), followed by myelopathy (4.1, CONUT score >3,3). There were no SLE exacerbations with definite casual relationship with the vaccination.

Conclusions: Obtained results demonstrate the safety and immunogenicity of 23-valent pneumococcal vaccine in SLE patients during one year FUP. The negative effect of bDMARDs on post-vaccination response was noticed. Future studies of vaccine efficacy and safety are needed in larger SLE populations.

Disclosure of Interest: None declared


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patients. Bed rest and spine immobilisation by bracing is prescribed to decrease pain but also to prevent those complications. There is currently no consensus about the best VO immobilisation technique to follow in VO. French guidelines recommend bracing for all patients whereas recently published American recommendations did not even mention spine immobilisation.

**Objectives:** To describe the type and duration of prescription of spine immobilisation during VO.

**Methods:** A prospective multicenter study was performed in 7 French centres. All patients with VO were followed prospectively for neurological complications, imaging findings, type and duration of immobilisation were reported. We present here the data of our study after 3 months of follow-up.

**Results:** To date, 79 patients completed 3 months follow-up. Medium age was 67 ±15 years old with 66% of males. Medium duration of symptoms before diagnosis was 27 days, IQR, 1.25–127 patients (47%) had staphylococcal infection. 36% of the patients had an abnormal neurological exam at baseline: 18 patients (23%) had minor neurological signs (sensory loss, radiculopathy or pyramidal syndrome), and 10 (12%) had major neurological signs (motor deficit or cauda equine syndrome). During hospital stay, 5 patients developed major neurological signs (median 5 days after diagnosis) and 7 minor neurological signs (median 6 days after diagnosis). Half of the patients with abnormal neurological exam at baseline had functional sequelae at 3 months. On MRI, 17% of patients had epidural phlegmasia, 20% had anterior effacement of subarachnoid space, and 16% had involvement of cervical spine. All these MRI signs were significantly associated with major neurological complications (p<0.004, p=0.004 and p=0.002, respectively).

Median duration of bed rest was 9 days (IQR 7–18). Overall, only 60% of patients have been immobilized by bracing (80% of rigid bracing). Median duration of prescription was 8 weeks, IQR, 6–12 Patients who did not receive spine immobilization had all a lumbar involvement, a normal neurological examination at baseline. None of them developed secondary neurological complications. They had no significant difference in age (72±16 versus 65±15 years old), sex or duration of the symptoms between patients who have been immobilised or not.

**Conclusions:** Neurological complications occurred in 35% of our patients as published in previous VO cohort. Interestingly, 40% of our patients were not treated with bracing. They all had lumbar involvement and normal initial neurological examination. None of them developed secondary neurological complications. Bed rest without bracing might be the best therapeutic option for these patients, preventing the morbidity associated with bracing.

**REFERENCE:**


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**SAF0400**

**INFECTIOUS SPONDYLODISCITIS: 7-YEAR ANALYSIS OF CLINICAL AND PROGNOSTIC VARIABLES IN A TERTIARY HOSPITAL**

J. Fraile1, R. Gonzalez Mazarío1, E. Labrador Sanchez1, E. Grau García1, K. R. Arevalo Ruales1, M. de la Rubia Navarro1, C. Alcaráz Escandell1, L. Gonzalez Puig1, J. Ivorra Cortes1, I. Martinez Cordell1, I. Canovas Olmos1, C. V. Inmaculada1, C. Najera Herranz1, C. Feced Olmos1, R. Negueroles Albuixech1, J.E. Oliver Rodriguez1, F.M. Ortiz Sanjuan1, V. Forges Ferrer1, M. Tassias Pitarch1, E. Dalcaubig Muñoz1, M. Salavert Lete1, J.A. Roman Ivorra1, R. Rheumatology, UCV Medical School, 2Biostatistics Unit, ISs La Fe, 3Infectious Diseases Unit, Hospital La Fe, 4Rheumatology, UCV Medical School, Valencia, Spain

**Background:** SpondyloDiscitis is an infectious disease of the vertebral body and intervertebral space, the early diagnosis and treatment are essential to give the patient the best chance of a good outcome, but these are often delayed because it tends to present nonspecific manifestations.

**Objectives:** To analyse cases of SpondyloDiscitis and identify poor prognosis variables.

**Methods:** A retrospective observational study, included all adult patients with confirmed infectious spondyloDiscitis between January 2010 and December 2017. Demographic features, concurrent disease, clinical history, laboratory findings, microbiological diagnosis, radiological data and clinical outcome were compiled from the clinical history management software. Statistical analysis was performed with the software R (version 3.3.2).

**Results:** We included 87 patients with a mean age of 62.05 (16.94) years old. Males predominated (69%). Almost 31% patients presented a level of immuno-suppression (immunosuppression treat, cirrhosis, HIV infection, solid organ transplantation). The average time with axial pain was 74 (87.65) days. Mean length of hospital stay was 34.24 (34.3) days and readmission rate was 34.9%. Most of patients showed high CRP levels at their admission, with an average value of 88.92 (84.58) mg/l, it was not correlated with worse prognosis. Underlying endocarditis proportion was 11.5%, Blood cultures were positive in 29 patients (33.3%), it was correlated with hospital stay (p=0.03). 51 patients had pustulosis-dermatitis and intervertebral biopsy with microbiologic findings diagnosis in 30 patients (60%). 42.5% patients had an identifiable gram +bacteria (37.8% Sneath cococcus genere), 13.7% a Gram- bacteria, Mycobacterium tuberculosis in 8% and fungi infection (all Candida spp.) in 3.4%. 38% of patients showed vertebral destruction on MRI; 17.4% cord compression and developed neurological complications (8% of them paraparesis). 18.4% of patients required further surgical procedures. Furthermore, vertebral destruction was statistically correlated with epidual abscess (p=0.006). Almost 6% patients died in the following year after diagnostic.

**Conclusions:** Delay in diagnosis is an important issue in SpondyloDiscitis patients. Higher complications rates are mainly in relation to greater vertebral destruction. Underlying infectious endocarditis was described in a small proportion of patients in contrast to other studies. Presence of epidual abscess was also

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**SAT0299**

**CHIKUNGUNYA FEVER IN KARACHI: CLINICAL AND LABORATORY FEATURES AND FACTORS ASSOCIATED WITH PERSISTENT ARTHRALGIA**

H. Alam, T.P. Umer, L. Nazir, Rheumatology, Liaquat National Hospital, Karachi, Pakistan

**Background:** Chikungunya virus (CHIKV) is an alphavirus transmitted by mosquito vectors.1 Acute infection lasts for 1–10 days and is characterised by abrupt onset of fever and severe arthralgia. Painful polyarthralgia is the symptom causing serious economic and social impacts on individuals and the affected communities.2 In a study conducted by Schlite C et al, 60% of CHKV-infected patients suffered from arthralgia, 36 months after acute infection.2 Non-steroidal anti-inflammatories and non-steroidal anti-inflammatory drugs (NSAIDS) are most commonly used for symptomatic relief.3 There is lack of local data on CHIKV and it’s after effects. By determining the clinical and laboratory features associated with CHIKV and persistent arthralgia, it will help us in early diagnosis, and improved outcomes in our population.

**Objectives:** To study clinical and laboratory features associated with persistent arthralgia in patients with chikungunya fever

**Methods:** This observational study was conducted at the Rheumatology Clinic of Liaquat National Hospital, Karachi. It comprised of collected data of patients who presented with arthralgias and positive chikungunya serology. Detailed history, examination and laboratory investigations were recorded in a pre-designed structured protocol and SPSS21 was used for statistical analysis.

**Results:** We had 52 patients out of which 28.8% were males and 71.2% were female, mean age being 45±5 years. Mean duration of arthralgia was 2.6 months. Pre-existing rheumatologic conditions were RA in 1.9% while SLE in 1.9% of the patients. Out of the total 9.6% were hospitalised due to complications like encephalitis, septic arthritis. Symmetrical arthralgia and asymmetrical was described in 76.9% and 23.1% of cases respectively. Small joint involvement was in 21.2%, large joint in 20.8% while both small and large involvement was seen in 48.4% of cases. Morning stiffness of greater than ½ hours was described in 63.5% of cases. Elevation ESR, CRP was seen in 69.2% and 59.6% cases, respectively. Patients were either given NSAIDS (34.6%), steroids (57.7%), or both (7.7%). Steroid was usually given in the form of a single intra muscular methylprednisolone 120 mg dose. In total 85.7% of patients improved after receiving steroids. While in group receiving NSAIDS only, improvement was seen 7.1% of total cases, and persistent arthralgia was seen in 98.6% of same group.

**Conclusions:** Chikungunya viral arthralgia has constituted a major disease and socioeconomic burden in our society in a relatively short span of time. Studies including our show it to be a great mimicker of inflammatory arthritis, and stresses the need to differentiate it, as history, clinical examination and lab parameters show quite similarly. Prompt treatments through steroids have shown great response in symptoms.

**REFERENCES:**


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