SAT0564 SUBLINGUAL VACCINE: NEW CHALLENGE IN THE PREVENTION OF RECURRENT INFECTIONS IN AUTOIMMUNE DISEASES

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Background: Disease-modifying antirheumatic drugs (DMARDs) and new biologicals have improved the prognosis of systemic autoimmune diseases (SAD), but reciprocally increase the risk of recurrent respiratory tract (RRTI) and urinary tract (RUTI) infections. Given the rising of antibiotic resistance, the search for new strategies for the prevention of recurrent infections is a priority.
Objectives: The purpose of this study was to evaluate the clinical benefit of the sublingual polybacterial vaccines on infections' rates in SAD patients.
Methods: A retrospective observational study on a cohort of SAD patients on active inmunosuppression with RRTI and RUTI was conducted. Patients were treated with multibacterial sublingual vaccine formulations either for RRTI (*Staphylococcus spp., S. pneumoniae, K. pneumoniae, M. catarrhalis, H. influenzae*)[3] or/and RUTI (*K. pneumoniae, E. coli, E. faecalis, P. vulgaris*)[4] (Bactek/Uromune®, Inmunotek SL Madrid, Spain) for 3-months period and clinical follow-up at 6- and 12-months. We monitored the frequency of infections, the intensity and severity of infections during follow-up. Immunological evaluation was performed, including: Serum immunoglobulin levels, IgG subclasses, specific antibodies' production: anti-pneumococcal, anti-Typhi polysaccharide and anti-tetanus toxoid antibodies, and B and T cell phenotype.
Results: A total of 50 patients were evaluated, and 34 were eligible at 12-months.The mean age of the patients was 58±13 years, 31 women (91.17%) and 3 men (8.82%), 44.11% (n=15) with rheumatoid arthritis (RA), 23.52% (n=8) with systemic lupus erythematosus (SLE), 8.82% (n=3) mixed connective tissue disease, 2.94% (n=1) ankylosing spondylitis, 2.94% (n=1) sacroileitis, 2,94% (n=1) psoriatic arthritis, 2,94% (n=1) SLE/RA, 2.94% (n=1) discoid LE/Sjögren, 2.94% (n=1) adult onset Still disease, 2,94% (n=1) sarcoidosis, 2.94% (n=1) SLE-like. All patients showed a significant decrease in RRTI (3.15±2.66 vs 0.46±1.07, $p<0.01$) and RUTI (1.85±2.49 vs 0.35±1.06, $p<0.01$) frequency and use of antibiotics at 6-months of vaccine, except one with sarcoidosis. 23 of 34 patients (67.64%) disclosed defects on specific antibody production to polysaccharide and protein immunization. Three patients with antibody production deficit and pneumonia required prophylactic intravenous Ig. No adverse effects or SAD relapses were noted during the 1-year observational period.
Conclusions: Mucosal vaccination in immunosuppressed patients due to SAD with recurrent infections resulted in lower rates of RRTIs and RUTIs with subsequent improvement in their quality of life. Our preliminary results need to be validated in controlled trials.
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SAT0565 THE FREQUENCY OF SEPTIC ARTHRITIS AFTER ARTHROCENTESIS AND INTRA ARTICULAR GLUCOCORTICOID INJECTION IS LOW

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Background: Intraarticular (IA) procedures have both diagnostic and therapeutic purposes in patients with arthritis. The therapeutic benefit of IA glucocorticoids (GC) injection in patients with rheumatologic diseases is well described. However, IA procedures are associated with increased risk of Septic arthritis (SA). Rapid diagnose and correct treatment is crucial to avoid joint damage, sepsis and potential fatal outcome. However, patients in risk of evolving SA secondarily to GC injection or arthrocentesis are not well defined.
Objectives: The aim of this study was to evaluate the risk of SA in patients who received an IA GC injection or an isolated joint puncture, and to describe possible characteristics for these patients.
Methods: All patients' undergoing IA procedures at the orthopaedic and rheumatological departments of Fuhnen from January 2006 to December 2013 were identified in the central database and included by register extraction. Patients who developed SA within 30 days after IA GC injection were registered as cases. SA was defined as clinically inflamed joint and positive synovial fluid culture.
Retrospectively, data on age, gender, affected joint location, bacterial agent, pre-existing inflammatory disorder and death within 30 days were extracted from the patient files.
According to local recommendations a non-touch sterile technic where used for IA procedures. Patients were informed about the risk for SA and motivated to seek medical attention if suspicion of infection or lack of improvement.
Results: 22370 IA procedures were registered; 14118 IA GC injections and 8252 arthrocentesis. Eleven patients with SA were registered.
Eleven patients developed SA subsequently to IA GC injection (0.08% of all GC injections). For patients' demography, joint distribution, bacterial agent and pre-excisting joint disease (Table 1). One patient died within 30 days after IA GC injection.

Sex	Age	Joint	Bacterial agent	Inflammatory Disease	Death, 30 days
M	83	Shoulder	Grp. A streptococcus	No	+
M	53	Elbow	S. Aureus	No	–
M	55	Ancle	S. Aureus	Gout	–
M	67	Knee	Grp. A streptococcus	No	–
F	83	Knee	E. Faecalis	No	–
M	58	Knee	S. Aureus	No	–
M	73	Knee	S. Aureus	Gout	–
F	50	Shoulder	Grp. A streptococcus	RA	–
F	66	Knee	S. Aureus	No	–
F	80	Knee	S. Aureus	RA	–
M	73	Elbow	E. coli	RA	–

Conclusions: This study demonstrates that IA procedures can be performed with little risk of SA. The risk factors identified i.e. elderly patients with inflammatory joint diseases are consistent with those described in the literature [1].
We consider joint puncture technique and patient information for being essential when doing IA procedures. However, if SA occurs it is potentially fatal and therefore GC injection should be preserved for doctors with experience in joint diseases.
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SAT0566 ELECTRONEUROGRAPHIC FINDINGS IN PATIENTS WITH SUBACUTE/CHRONIC ARTICULAR SYMPTOMS OF CHIKUNGUNYA FEVER AND NEUROPATHIC COMPLAINTS – PRELIMINARY RESULTS

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Background: The mechanisms of nonarticular pain associated with Chikungunya virus (CHIKV) infection are still poorly understood. Many patients that progress to Subacute/Chronic phases have neuropathic pain (NP) besides the articular symptoms. The NP is associated with a less favorable outcome, with greater impact on quality of life and lower efficacy of treatment. The NP can reflect a dysfunction of the nervous system, rather than a neurological lesion induced by CHIKV, but the pathophysiology of the neural disfunction is not completely understood. There are no studies evaluating the electroneurographic findings in patients with CHIKV infection and neuropathic symptoms.
Objectives: To evaluate the results of electroneurography (ENoG) of patients with Chikungunya Fever (CF) and neuropathic symptoms.
Methods: Patients with diagnosis of CF (clinical and epidemiological) and symptoms of paresthesias underwent ENMG of upper and lower limbs. The electrodiagnostic evaluation consisted of nerve conduction study of median, ulnar, tibial, fibular, sural and plantar nerves. Clinical and epidemiological data were also recorded.
Results: The sample was composed by 18 patients (82.3% females) with mean age of 56 (±9.9) years. The mean duration of symptoms of CF at the time of the ENoG was 23.8 (±10.8) weeks and the average of tender and swollen joints (including ankle and foot) was 29.6 (±21.5) and 9 (±9.9), respectively. The mean score of visual analogic scale (VAS) for pain was 4.4 (±2.4) and for fatigue was 5.9 (±2.9), considering values between 0 and 10. No patient presented axial pain and the number of painful joints was higher in upper (19.4±13.9) compared to lower limbs (10.2±8.4). Only 3 patients reported unspecific paresthesias prior to the onset of arbovirosis and worsening after CF. However, these 3 patients had normal ENoG. Six patients had diabetes. Mononeuropathy was the most frequent result occurring in 12 subjects (67%). Bilateral mononeuropathy of median nerve (at carpal tunnel) was found in 11 patients and one subject had median neuropathy just on the left hand. Other mononeuropathies were also present: bilateral tibial nerve in 4, bilateral plantar nerve in 2 and bilateral fibular nerve in 1 patient. Distal axonal polyneuropathy was present in 8 cases (6 sensory and 2 sensorimotor); 5 of these were diabetic. The ENoG was normal in 4 cases. Ten patients were in use of prednisone (mean dose 11.4mg/d) and just 6 were using antineurophatic agents.
Conclusions: Our preliminary results indicate that the ENoG is altered in most patients with chronic articular manifestations of CF and associated paresthesias. Mononeuropathy is the most commom finding, even in the chronic phase of the disease when the nonarticular edema is not common. Further clinical studies with a larger number of patients and follow-up tests will be needed to confirm our data.
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SAT0567 IMPACT OF CHIKUNGUNYA FEVER ON FUNCTIONAL STATUS AND QUALITY OF LIFE – A PROSPECTIVE COHORT STUDY OF BRAZILIAN PATIENTS

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Background: An epidemic of Chikungunya Fever (CF) spread throughout South America in 2014. The acute manifestation of CF typically consists of febrile arthritis. The burden of the chronic articular manifestations remains a public health issue affecting activities of daily life. There is a very important impact on quality of life in patients affected by CF, even at chronic phase. The long-term functional status may also be affected by CF.
Objectives: To evaluate longitudinally the disability, Health Related Quality of Life (HRQOL) and functional status of patients with CF and analyze the clinical and epidemiological factors associated with different outcomes.
Methods: Patients with clinical and demographic diagnosis of CF and persistent articular symptoms were evaluated in a cohort study between May 2016 and December 2016. HRQOL was rated by Short-Form 12 (SF-12) and the functional status was checked through Health Assessment Questionnaire (HAQ) and the Global Functional Status (GFS). Data were divided per weeks after disease onset and were analysed (Spearmans's correlation coefficient and Mann-Whitney test).
Results: Sixty-five patients (58 females), mean age of 51.3 (±13.3) were assessed. As expected, a significant correlation between pain related scores and Physical Health Composite Scale Score (PCS), HAQ and GFS was found ($p<0.05$)). Edema and morning stiffness correlated with PCS, HAQ and GFS status from 4 to 20 weeks after disease onset ($p<0.05$). There was improvement in scores of all instruments used from 4–8 weeks of disease to 12–16 weeks of disease (table 1). The worst indices of PCS, Mental Health Composite Scale Score (MCS) and GFS were scored in the first month, mean scores of 30.07±5.77, 38.13±8.54 and 3.15±1.07 respectively. Higher HAQ values were demonstrated between 4 and 8 weeks after disease onset (mean score 1.87±0.82).

HRQOL and Functional Status in patients with CF

	4–8 weeks of disease (mean score)	12–16 weeks of disease (mean score)	P value
PCS	30.12±8.21	35.86±11.11	0.0487
MCS	40.95±12.23	47.02±12.09	0.0326
HAQ	1.87±0.82	1.36±0.86	0.0228
Global Functional Status	3.03±0.98	2.53±0.95	0.0438

Conclusions: We demonstrated the impact of CF on HRQOL and Functional Status of patients. The SF-12 Health Survey, HAQ and GFS are influenced mostly by patients pain and worsening of this status are more prominent in the first 8 weeks of disease. Further clinical studies of the impact of CF on quality of life and functional studies are needed
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SAT0568 RHEUMATOLOGICAL MANIFESTATIONS IN A SERIES OF PATIENTS WITH CHIKUNGUNYA FEVER

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Background: Chikungunya fever is characterised by a high probability of persistent rheumatological manifestations, producing a negative impact in the work, social and economic fields.
Objectives: To determine the frequency and type of rheumatologic involvement in the subacute and chronic phase of Chikungunya fever.
Methods: Descriptive, cross-sectional study. We included patients>16 years old with Chikungunya infection (real time PCR, IgM or IgG for Chikungunya) who consulted consecutively for rheumatic symptoms/signs from March 2015 to March 2016. According to the time of evolution, the disease was divided in 2 Phases: acute ($\leq$10 days of duration) and subacute/chronic ($\geq$11 days). According to clinical presentation, patients were classified in two groups: 1) non-autoimmune rheumatologic compromise (NARC) and 2) autoimmune rheumatologic compromise (ARC). Current ACR/EULAR criteria for classification of autoimmune diseases were used.
Results: Two hundred and two patients were evaluated, 80 were excluded due to negative serology for Chikungunya. 122 were included: 107 (88%) female, mean age 52.52±13.19 years, and time of evolution of 116.66±91.61 days.
Acute phase. 122 patients: fever 85 (69.67%), rash and pruritus 54 (44.26%), tenosynovitis 23 (18.8%), polyarthralgias 100 (82%) and arthritis 56 (45.90%).
Chronic phase. 122 patients: 71 (58%) patients had a chronic persistent rheumatologic symptoms and 51 (42%) presented remission of symptoms but all of them presented subsequent recurrence in an 91±40 days. NARC in 33 patients (27%) and ARC in 89 (73%), with no significant differences in age and time of evolution was observed.
NARC: 14 (42.4%) exacerbation of previous osteoarthritis pain, 9 (27.3%) developed fibromyalgia and 10 (30.3%) had localized soft tissue pain.
ARC: 13 (14.6%) with a history of RA, SLE, psoriasis or DM reactivated the underlying disease and 76 (85.4%) developed ARC: Undifferentiated polyarthritis with negative antibodies 61 (80%), RA with positive antibodies 5 (6.5%), scleroderma 2 (2.6%), cutaneous vasculitis 2 (2.6%), polymyalgia rheumatica 1 (1.3%), Sjogren's Syndrome 2 (2.6%), Dermatomyositis 1, Erythema nodosum 1 (1.3%) and vitiligo 1 (1.3%).
Antibodies were requested according to clinical suspicion: FAN $\geq$320 in 5 patients, RF in 6, ACPA in 4 and anti RO in 1. Thyroid dysfunction was observed in 7 patients who had a previous normal thyroid profile.

	Acute Fase n 122 (%)	Chronic Fase n 122 (%)	p
Fever	85 (69,7)	0	0,01
Rash and pruritus	54 (44,2)	0	0,01
Tenosynovitis	23 (18,8)	41 (33,61)	NS
Polyarthralgias	100 (82)	83 (68,03)	NS
Arthritis	56 (45.9)	81 (66,39)	0,0005

Conclusions: The frequency of rheumatological manifestations post Chikungunya fever in our sample was high, and can trigger ARC. Patients presenting new immunological manifestations in an endemic area for Chikungunya fever should have a serologic test performed. This series of patients must be evaluated with long-term studies to define their evolution, under the possibility of developing definite autoimmune disease or remission.
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SAT0569 OUTCOME OF PATIENTS WITH SYSTEMIC RHEUMATIC DISEASES ADMITTED IN INTENSIVE CARE UNIT: A PROGNOSTIC STUDY OF 98 PATIENTS

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Background: Systemic rheumatic diseases (SRD) are a rare and heterogeneous group of diseases, associated with a high mortality rate due to the natural evolution of the disease and/or consequences of their specific treatments (infections, toxicity).
Objectives: To describe the clinical features, outcomes and prognostic factors for patients with SRD admitted to the intensive care unit (ICU).
Methods: Single-center retrospective observational cohort study of 98 patients with SRD over an 11-year period in an ICU of a French teaching hospital.
Results: Ninety-eight patients (57% women; median age, 57 years [19–81years]) accounted for 108 admissions. Connective tissue disease (primarily systemic lupus erythematosus) and systemic vasculitides (mainly ANCA-associated vasculitides) represented respectively 55% and 30% of SRD. For nineteen patients, diagnosis of SRD was made at admission. Reasons for admission were: SRD exacerbations (43%), isolated infections (34%), SRD exacerbations associated with infections (12%) or other (11%). Respiratory failure was the most common organ dysfunction. Mechanical ventilation was necessary for 43 patients (44%), vasoactive drugs for 47 (48%) and extra-renal replacement therapy for 38 (39%). The ICU mortality rate was 30% and 37% one year after admission. Infection was the main cause of death (69%). The factors significantly associated with mortality in the ICU were (multivariate analysis): diabetes, cardiovascular diseases and immunosuppressive treatments on admission. At 1 year of follow-up, additional risk factors were: number of organ dysfunction at ICU admission and mechanical ventilation. It is to be noted that at 1 year of follow-up, diabetes was not anymore a prognostic factor.
Conclusions: Patients with SRD admitted to the ICU have a severe prognosis. Causes of mortality are mainly infections. Our study points out the importance of vaccination and developing new therapeutic strategies. Diagnosis of SRD in the ICU is not rare and should be systematically considered on admission. Prognostic factors of mortality in the ICU were patient comorbidities and immunosuppressive