

Systemic lupus erythematosus (SLE) is a clinically heterogeneous multi-system disease, that is characterised by the presence of autoantibodies directed against nuclear antigens. The most common manifestations include rash, arthritis, fatigue, but also anaemia, thrombocytopenia, nephritis and neurologic symptoms. The latter remain one of the most challenging of all classification criteria, since lupus patients might present with a multiple array of psychiatric and neurologic symptoms, such as depression, anxiety and personality disorder, dementia, aseptic meningitis, demyelinating syndromes, and cerebrovascular disease.

The aim of this project was to understand the prevalence, morbidity and outcome associated with non-primary neuropsychiatric Lupus erythematosus systemic at our auto-immunity diseases centre. Clinical records of 128 patients followed at the clinic between January 1993 and December 2016 were read, and national registry of Auto-immune diseases was consulted in order to characterise the Lupus cohort.

From all 137 patients assessed, average age was 49, with 93% of all patients being females. The most frequent clinical criteria were malar rash in 72%, arthritis in 51%, hematologic disturbances in 43%, from which the most frequent was lymphopenia.

Amongst all patients, only 6,6% of patients (n=9) presented with severe non-thrombotic neurologic impairment, with one patient presenting with trigeminal neuralgia, 5,8% of patients presenting with magnetic resonance imaging compatible with cerebritis, with three of the patients overlapping with seizures. However, minor neuropsychiatric impairment was very common, with headache being the most predominant complaint (68,4%), as well as anxiety (77%). All of patients were on a low dose corticosteroid regimen.

Diffuse neuropsychiatric manifestations of SLE remain a diagnostic challenge, because it is very difficult for the physician to understand whether these are caused by SLE or psychological reactions to the stress of coping with a major chronic systemic illness.

**PS9:174 PREVALENCE OF VASCULAR RISK FACTORS IN A COHORT STUDY OF PATIENTS IN FOLLOW-UP IN A UNIT OF AUTOIMMUNE DISEASES IN A 3TH LEVEL HOSPITAL IN SPAIN**

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**Objectives** Lupus systemic erythematosus is characterised by an increasing risk of premature cardiovascular disease (CVD). CVD is one of the most common causes of death in SLE. Subclinical atherosclerosis in comparison to general population is also more prevalent, especially the presence of plaques at the carotid level, as well as thickening of the carotid intima.

The aetiology of atherosclerotic disease is completely unknown. It involves: traditional risk factors (age, male gender, smoking, diabetes, hypertension, dyslipidemia, obesity) as well as risk factors related to the disease itself and the treatments used.

**Methods** A cross-sectional study was carried out from March to November 2015. 119 patients (94,1% women) were

**Abstract PS9:174 Table 1 Vascular risk factors**

Vascular risk factors.	
Statin	14,29 %
Hypotensive treatment	29,41 %
Antiplatelet agents	26,89 %
Smoker- Former smoker	23,53 % - 19,33 %
Obesity	17,09 %
Dislipemia	20,17 %
Hypertensión	25,21 %
Diabetes	0
Age at diagnosis	33,29 ± 12,46 years
Evolution time	14,89 ± 11,36 years
SLEDAI	2,44 ± 2,71
Corticoids	37,93 %
Antimalarial drugs	89,08 %
Inmunosuppressive	32,76 %
Corticoids treatment previously	50,42 %
Cholesterol	186,66 ± 34,62 mg/dl
HDL cholesterol	62,33 ± 17,78 mg/dl
LDL cholesterol	106,51 ± 30,38 mg/dl
Triglycerides	90,31 ± 46,78 mg/dl

recruited from consultation at the Systemic Autoimmune Diseases Unit for a routine medical check. Clinical data on the disease (from diagnosis to the time of inclusion in the study) were obtained by reviewing the medical history. Data were collected about:

- Traditional vascular risk factors.
- Risk factors related to the disease: Age at diagnosis, time of disease progression, SLEDAI.
- Treatment performed.
- Lipid profile.

**Results** View table 1. Hypertension is one of the classic risk factors attributed to the disease. In our study the prevalence is 25%, similar to the one found in other studies in literature. Likewise, the percentage of patients receiving antihypertensive therapy is higher than that of hypertensive patients. This can be explained by the use of antihypertensives for antiproteinuric purposes in patients with nephropathy. Unless contraindicated, most patients received antimalarials and the use of corticosteroids is still important.

**Conclusions** Once the vascular risk factors have been identified, strict control of these factors is important. The realisation of cardiosaludable diet and regular aerobic exercise, since this constitutes the most effective form for its control. In addition, a rapid and long-term remission of the inflammatory activity of the disease should be achieved, avoiding high doses of oral glucocorticoids, thus avoiding its side effects. The decrease in the activity of the disease allows to do physical exercise, which would have beneficial consequences controlling the body mass index and hypertension.

**PS9:175 TWO DECADES OF LUPUS NEPHRITIS**

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Systemic lupus erythematosus (SLE) is a clinically heterogeneous multi-system disease, that is characterised by the presence of autoantibodies directed against nuclear antigens. The most common manifestations include rash, arthritis, fatigue, but also anaemia, thrombocytopenia, nephritis and neurologic symptoms. Despite enormous improvements in prognosis since the introduction of immunosuppressive drugs, SLE continues to have a significant impact on the mortality and morbidity of those affected.

The aim of this project was to understand the prevalence, morbidity and outcome associated with lupus nephritis at our auto-immunity diseases centre. Clinical records of 128 patients treated between January 1993 and December 2016 were read, and national registry of Auto-immune diseases was consulted in order to characterise the Lupus cohort. Treatment was assessed and pre and post treatment biopsies were reviewed by WHO classification.

From all 137 patients assessed, average age was 49, with 93% of all patients being females. The most frequent clinical criteria were malar rash in 72%, arthritis in 51%, hematologic disturbances in 43%, from which the most frequent was lymphopenia. Among all patients, 21.2% (n=29) had clinical and histologic diagnostic criteria for lupus nephritis, with mean age at diagnosis of 34 years old (from 17 to 71). From all biopsies performed, 48% were classified as grade IV OMS. All patients were treated with glucocorticoids, and 74% performed induction therapy with Protocol Euro-Lupus, followed by mycophenolate mofetil. ACE inhibitors were used in 95.2% of all patients. Only two patients worsened and interchanged nephritis class, with one patient achieving kidney failure.

This was an important review for our centre, since our patients presented an elevated proportion of Lupus Nephritis, at a very young age.

**PS9:176 SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) PROSPECTIVE OBSERVATIONAL COHORT STUDY (SPOCS) TO CHARACTERISE MODERATE TO SEVERE SLE DISEASE ACTIVITY, TREATMENT, AND OUTCOMES BY TYPE I INTERFERON GENE SIGNATURE**

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**Purpose** Type I interferon (IFN) plays a major role in SLE pathogenesis. However, limited information exists about type I IFN gene signature (IFNGS) associations with disease severity and activity, health-related quality of life, and outcomes for the general population of patients with moderate to severe SLE receiving standard-of-care treatment.

**Methods** Initiated in June 2017, SPOCS is an international, multicenter cohort of 1500 patients with moderate to severe SLE evaluated biannually during a 3 year follow-up period. Participating countries include Canada, United States, France, Germany, Italy, Spain, United Kingdom, and Australia. SPOCS will systematically describe the comprehensive patient journey, including clinical features, disease progression and treatment, outcomes, health status, and health care resource utilisation, for a general population of patients with moderate to severe SLE (table 1).

Association of type I IFNGS expression with these elements will be assessed. The study includes 2 year enrollment and

**Abstract PS9:176 Table 1 Planned data collection**

Planned Data Collection	
<b>Study site information</b> Type of site Size of site	<b>Treatment</b> SLE treatment prescribed Concomitant treatment prescribed
<b>Physician information</b> Physician specialty Sex Number of years practicing Number of years treating patients with SLE	<b>Other medical conditions</b> Comorbidities Newly reported medical events
<b>Demographics</b> Age Sex Race and ethnicity (if allowed by local regulations) Education level Marital status Employment status	<b>PRO questionnaires</b> SF-36-v2 FACIT-F EQ-5D-5L LupusQoL PaGA WPAI:Lupus Medical resource use questionnaire PHQ-8
<b>Trial participation involving investigational product or placebo (yes/no)</b>	<b>Pregnancy</b> Reproductive history Pregnancy status
<b>Physiologic variables</b> Height/weight Blood pressure Heart rate Oral temperature Hormonal status (women)	<b>Type I IFN gene signature</b> <b>Biomarkers (blood sample)</b> HCRU Hospitalizations Outpatient HCP visits (including surgery) Emergency department visits (nonadmitted)
<b>Vital status</b> Date of death Cause of death	ACR, American College of Rheumatology; ANA, antinuclear antibodies; dsDNA, double-stranded deoxyribonucleic acid; EQ-5D-5L, EuroQOL 5 Dimensions 5 Levels; FACIT-F, Functional Assessment of Chronic Illness Therapy-Fatigue; HCP, health care provider; HCRU, health care resource utilization; IFN, interferon; LupusQoL, Lupus Quality of Life; PaGA, Patient's Global Assessment of Disease Activity; PHQ-8, Personal Health Questionnaire Depression Scale; PRO, patient-reported outcome; SF-36-v2, Short Form Health Survey, version 2; SLE, systemic lupus erythematosus; SLEDAI-2K, Systemic Lupus Erythematosus Disease Activity Index 2K; SLICC, Systemic Lupus International Collaborative Clinics; VAS, visual analog scale; WPAI:Lupus, Work Productivity and Activity Impairment Questionnaire:Lupus.
<b>SLE disease components</b> Date of first diagnosis Date of last positive ANA/dsDNA serology ACR and/or SLICC criteria Number and severity of SLE flares SLEDAI-2K PhGA-VAS SLICC/ACR disease index score Laboratory tests Complications (including SLE-associated)	

3 year follow-up periods for each patient. Patients ( $\geq 18$  years old) with a physician diagnosis that meets ACR or SLICC SLE criteria will be included. Additional study entry requirements include moderate to severe SLE as defined by a modified SLEDAI-2K score  $\geq 4$  or SLEDAI-2K score  $\geq 6$ ,  $\geq 6$  month treatment duration for active SLE with systemic SLE treatment beyond NSAIDs and analgesics, and current or historic serology of ANA or dsDNA. Exclusion criteria include enrollment in interventional trials involving investigational agents or active, severe, biopsy-confirmed class III or class IV  $\pm$  class V LN and/or urine protein:creatinine ratio  $> 1$  mg/mg. Patients will be followed as per local routine clinical practice.

**Results** First patient recruited was achieved in June 2017, and the last patient out is anticipated for Q2 2022. Data collection, which will include use of electronic case report forms and patient-reported outcomes, will take place at biannual study visits. Distribution of type I IFNGS (test-high vs test-low) will be determined, and any association with patient outcomes will be evaluated.

**Conclusion** SPOCS will provide important information about possible associations of type I IFNGS with disease characteristics and outcomes for patients with moderate to severe SLE.

**PS9:177 LUPUS NEPHRITIS – CLINICOPATHOLOGICAL CORRELATION AND RENAL OUTCOME**

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