SPOCS STUDY: DELINEATING THE ORGAN DAMAGE IN MODERATE-SEVERE SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS – A SUBANALYSIS OF THE SPANISH DATA

Ana Turrión Nieves[1], Iñigo Rúa-Figueroa[2], Mercedes Freire-González[3], Ricard Cervera Segura[4], José María Pego-Reigosa[5], Josefina Cortes Hernández[6], Iván Castellvì Barranco[7], Julia Barbado[8], Nuria Lozano-Rivas[9], Monserrat Diaz-Encarnación[10], Jaime Calvo-Alén[11], Norberto Ortego-Centeno[12], Bo Ding[13], Marta Galvez-Fernandez[14], Paula Álvarez-Hernández[14], Noemí Bahamontes-Rosa[14], Tarek Salman-Monte[15]

1. Hospital Universitario de Salamanca, Salamanca, Spain. 2. Hospital Universitario Doctor Negrín, Las Palmas de Gran Canaria, Spain. 3. University Hospital of A Coruña, A Coruña, Spain. 4. Hospital Clinic, University of Barcelona, Barcelona, Spain. 5. University Hospital of Vigo, IRIDIS Study Group, Health Research Institute from Galicia Sur (IISGS), Vigo, Spain. 6. Vall d'Hebron Hospital Universitari, Barcelona Hospital Campus, Barcelona, Spain. 7. Hospital de Santa Creu i Sant Pau, Barcelona, Spain. 8. Río Hortega University Hospital, Valladolid, Spain. 9. Hospital Clínico Universitario Virgen de la Arrixaca, Murcia, Spain. 10. Fundación Puigvert, Barcelona, Spain 11. Departamento de Medicina de la Universidad del País Vasco, servicio de Reumatología del Hospital Universitario Araba, Instituto de investigación sanitaria Bioaraba, Vitoria-Gasteiz, Spain. 12. Hospital San Cecilio, Granada, España. 13. BioPharmaceuticals Medical, AstraZeneca, Gothenburg, Sweden. 14. Biopharmaceuticals Medical, AstraZeneca, Madrid, Spain. 15. Hospital del Mar, Barcelona, Spain.

Introduction

- In patients with systemic lupus erythematosus (SLE), organ damage can be caused by poor disease control, but medication, such as glucocorticoids, also contributes to organ damage accrual.
- SLE patients have an increased risk of cardiovascular events, malignancies, infections, and premature death, entangling the control of the disease.

Objectives

- The SPOCS study evaluates the real-world clinical evolution of SLE patients.
- This subanalysis aims to describe the organ damage in a Spanish cohort of patients with moderate-severe SLE included in SPOCS study.

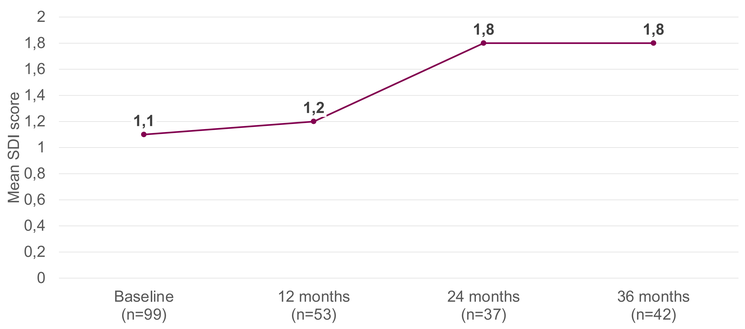
Methods

- The SPOCS Study (NCT03189875) is an international, multicenter, prospective, observational cohort study encompassing moderate-severe SLE patients, recruited from 2017 to 2019, and followed for 3 years afterwards.
- The Spanish Cohort included patients with biannual follow-up over a maximum 3-year period. Invited subjects were adults (≥18 years) with physician-confirmed moderate to severe SLE according to ACR or SLICC SLE classification criteria.
- Inclusion criteria considered adults with confirmed SLE diagnosis by ACR or SLIC-2012 criteria, SLEDAI-2K ≥6 or ≥4 points without laboratory alterations or lupus headache, current or previous positive serology of antinuclear or anti-dsDNA antibodies and at least 6 months of systemic treatment for SLE excluding non-steroidal anti-inflammatory drugs.
- Organ damage was assessed by SLICC/ACR (Systematic Lupus International Collaborating Clinics/American College of Rheumatology) Damage Index (SDI).

Results

- Among the 99 patients included in the Spanish cohort, 91 were female. Mean (SD) time since SLE diagnosis was 11.6 (10.0) years. For the whole cohort, mean (SD) SDI score was 1.1 (1.64) at baseline, 1.2 (1.89) at month 12, 1.8 (1.96) at month 24 and 1.8 (2.04) at month 36. (**Figure 1**).

Figure 1. SLICC/ACR organ damage index (SDI) at baseline and during follow-up

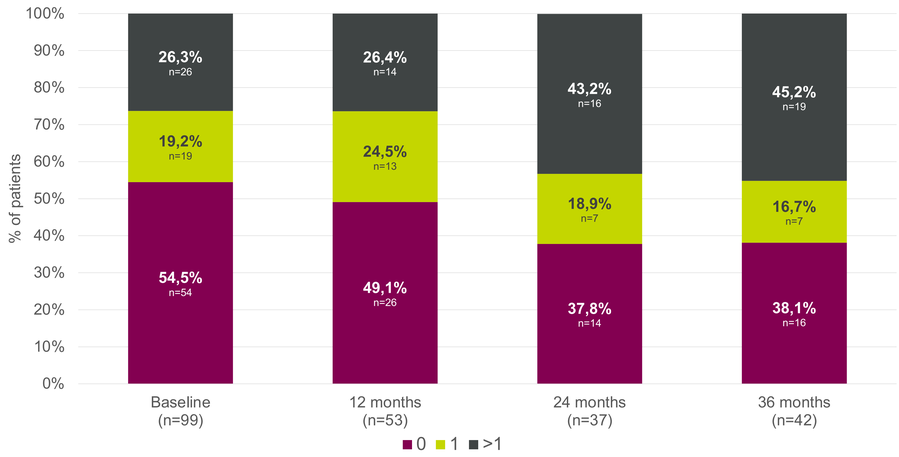


Abbreviations: m, months; SD, standard deviation

Results (continued)

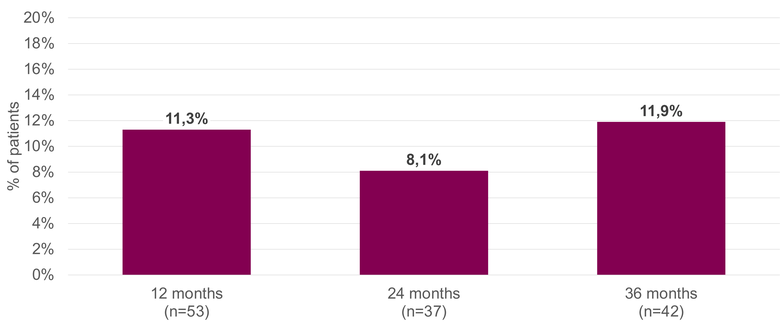
- Patients with an **SDI score of 0 decreased from 54.5% at baseline to 38.1% at the end of the 36-month follow-up period**, **and patients with an SDI score >1 increased from 26.3% at baseline to 45.2%** during the same period (**Figure 2**).
- A total of 45% of the patients presented any organ damage at baseline, 51% at 12 months, 62% at 24 months and 62% at 36 months, suggesting **increasing trend of the organ damage** (**Figure 2**).

Figure 2. Percentage of patients according to SDI category at baseline and during follow-up



- Between **8.1% and 11.9% of the patients reported at least one new organ damage since the previous visit** at each of the follow-up timepoints (**Figure 4**).

Figure 4. Percentage of patients with at least one new damage reported since previous visit



- The **most affected domain was the musculoskeletal system** (deforming or erosive arthritis), followed by the neuropsychiatric domain (cognitive impairment and cerebral vascular accident). Proteinuria (>3.5gr/24h) was present in 4% of the patients at baseline, affecting 7.5% of the cohort after 12 months of follow-up (**Table 1**).

Table 1. Organ damage by domain/organ affected at baseline and at 12 months

	Baseline (n=99)	At 12 months (n=53)
Musculoskeletal, n (%)		
Deforming or erosive arthritis	11 (11.1)	7 (13.2)
Osteoporosis	5 (5.1)	3 (5.7)
Avascular necrosis (multiple sites)	4 (4.0)	4 (7.5)
Skin, n (%)		
Scarring chronic alopecia	5 (5.1)	1 (1.9)
Neuropsychiatric, n (%)		
Cognitive impairment	9 (9.1)	4 (7.5)
Cerebral vascular accident (single and repeated)	7 (7.0)	4 (7.5)
Renal, n (%)		
Proteinuria ≥3.5g/24 hours	4 (4.0)	4 (7.5)
Malignancy[1], n (%)	1 (1.0)	3 (5.7)
Premature gonadal failure, n (%)	6 (6.1)	4 (7.5)

[1]Excluding dysplasia

Conclusions

- **In this prospective cohort of moderate-severe SLE patients in Spain, almost half of them presented organ damage at baseline with a clear increasing trend during the follow-up, suggesting an important burden of the disease in patients with moderate-severe activity level and affecting several domains.**
- **The use of therapeutic options that prevent the organ damage are needed to reduce the progression of the disease.**

N.º 116

Presented at the 51st SER Congress, Madrid, Spain, May 2025

Funding by AstraZeneca