

**Abstract 464 Table 1** Demographics and prevalence of LLDAS and damage in the study cohort.

	Total study cohort 293	Never in LLDAS 39 (13.3)	1-year LLDAS 35 (11.9)	2-year LLDAS 51 (17.4)	3-year LLDAS 50 (17.0)	4-year LLDAS 29 (9.9)	≥5-year LLDAS 89 (30.5)	p
Age in 2009, years, mean ± SD	39.1 ± 12.5	39.9 ± 13	36.6 ± 16.4	40.0 ± 13.0	42.4 ± 11.7	41.9 ± 11.2	39.8 ± 12.5	n.s.
Female, No. (%)	253 (86.3)	32 (82.1%)	29 (82.9)	47 (92.2)	41 (82)	23 (79.3)	81 (91.0)	n.s.
SLE duration at 2015, years, mean ± SD	17.2 ± 7.8	17.2 ± 7.9	16.6 ± 7.0	19.1 ± 8.3	18.6 ± 8.0	17.0 ± 7.9	18.1 ± 7.2	n.s.
SDI at baseline, mean ± SD	0.64 ± 1.04	0.87 ± 1.17	0.94 ± 1.53	0.90 ± 1.08	0.62 ± 0.91	0.48 ± 0.78	0.34 ± 0.74	<0.05*
Mean ± SD SDI increase	0.77 ± 0.95	1.57 ± 1.35	1.20 ± 0.90	0.88 ± 0.89	0.85 ± 0.87	0.45 ± 0.69	0.27 ± 0.49	<0.001
Increase in SDI, No. patients (%)	151 (51.5)	31 (79.5)	28 (80)	31 (60.8)	28 (56)	11 (37.9)	22 (24.7)	<0.001

SD, standard deviation; SDI, SLICC/ACR damage index.

P values refer to ANOVA test with 5 degrees of freedom.

\* 1-year LLDAS vs ≥5-year LLDAS,  $p=0.004$ ; 2-year LLDAS vs ≥5-year LLDAS,  $p=0.018$ ; for other comparison,  $p=n.s.$ 

definition of LLDAS was applied: (1) SLEDAI-2K ≤ 4, with no activity in major organ systems (renal, central nervous system, cardiopulmonary, vasculitis, fever) and no haemolytic anaemia or gastrointestinal activity; (2) no new lupus activity compared with the previous assessment; (3) a PGA (scale 0–3) ≤ 1; (4) current prednisolone-equivalent dose ≤ 7.5 mg/day; (5) stable maintenance dose of immunosuppressants.

The effect of different durations of LLDAS (1, 2, 3, 4, ≥ 5 consecutive years) on SDI was evaluated by multivariate logistic regression analysis.

**Results** The prevalence of LLDAS and damage in the cohort are reported in Table 1.

Patients who spent at least 2 consecutive years in LLDAS had significantly reduced damage accrual compared with patients never in LLDAS ( $p=0.001$ ). Interestingly, among the 254 patients achieving LLDAS for at least 1 year, 231 (90.9%) had clinical-SLEDAI-2K = 0. At multivariate analysis, a LLDAS lasting at least two years was protective against damage (Table 2). Conversely, major independent predictors of damage were cumulative prednisone dose ≥ 180 mg/month and antiphospholipid antibody syndrome (Table 2).

**Conclusions** Two consecutive years was the shortest LLDAS duration associated with a decrease in damage progression in Caucasian SLE patients.

## REFERENCE

- Franklyn K, et al. *Ann Rheum Dis* 2016;**75**:1615–1621.

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### SULFASALAZINE-RELATED HYPERSENSITIVITY REACTIONS IN PATIENTS WITH RHEUMATIC DISEASES

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**Background and aims** Sulfonamide related allergic drug reactions are common, and their rate is reported to be 3.0% for the general population. Sulfasalazine (SSZ), which is an inflammatory drug in the arylamine sulfonamide structure, is being used for the treatment of many rheumatic diseases. In this study, we aimed to determine the frequency of sulfasalazine-related hypersensitivity reactions in patients with rheumatic disease.

**Methods** A total of 136 patients (84 RA and 52 AS) were included in this study. Patients were screened for those who recently started using sulfasalazine treatment. The type of the reaction, duration of the reaction, administered medicines, and their doses were recorded in patients with detected hypersensitivity during the follow-up. The drug was stopped and antihistaminic and/or corticosteroid treatment was administered as needed. In patients with a negative prick test, a drug provocation test (DPT) was performed after drugs were stopped and amino salicylic acid.

**Results** A total of 136 patients, with ages ranging from 19 to 71 (mean  $41.97 \pm 12.04$ ), were included in the study.

**Abstract 464 Table 2** Multivariate analysis: independent risk factors and protective factors for damage accrual over the follow-up.

	p values	OR	95% CI	
<b>≥ 5 consecutive year LLDAS</b>	<0.001	0.080	0.028	0.228
<b>4 consecutive year LLDAS</b>	0.001	0.143	0.043	0.474
<b>3 consecutive year LLDAS</b>	0.025	0.292	0.100	0.855
<b>2 consecutive year LLDAS</b>	0.036	0.320	0.110	0.926
1 year LLDAS	0.921	1.064	0.313	3.614
<b>Disease duration</b>	0.003	1.063	1.021	1.106
<b>Antiphospholipid antibody syndrome</b>	<0.001	5.110	2.068	12.629
<b>Cumulative average PDN dose ≥180 mg/month</b>	0.048	2.059	1.007	4.211
<b>Age</b>	0.008	1.035	1.009	1.062

Significant variables are given in bold; 95% CI, 95% confidence interval; LLDAS, lupus low disease activity state; PDN, prednisone.

Variables included in the analysis but not significant in the final model: SDI at baseline, type of disease manifestation over the disease course (including skin rashes, arthritis, serositis, vasculitis, glomerulonephritis, central nervous system and haematological involvements), serology (including positive anti-dsDNA, anti-U1RNP, and reduction in complement serum levels), immunosuppressive therapies.

Hypersensitivity reaction was observed in 12/136 (8.8%) of the patients. The SSZ related hypersensitivity reaction types were: urticaria in 7 patients, urticaria and angioedema in 4 patients, and pruritus in 1 patient.

**Conclusions** Sulfasalazine is widely used by rheumatologists in treatment of rheumatic diseases. These reactions might be

ignored because, when type 1 reaction occurs, the patient has the possibility of changing to alternative treatments. Patients who have SSZ-related allergic reactions should be advised to avoid sulfanilamide antibiotics such as sulfamethoxazole.