

Conclusion: This is the largest single center series of SS- associated lymphoma patients, providing a detailed description of SS and lymphoma related features, combined with a 10-year survival and event free curves for the first time in the literature.

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OP0295

GR2 MULTICENTRIC PROSPECTIVE FRENCH STUDY'S RESULTS: DAMAGE BUT NOT REMISSION AT FIRST TRIMESTER PREDICTS ADVERSE PREGNANCY OUTCOME IN LUPUS PREGNANCIES

M. Larosa^{1,2}, V. Le Guern¹, G. Guettrot Imbert¹, E. Lazaro³, N. Morel¹, N. Abisror Jeannin⁴, C. Morati-Hafsaoui⁵, P. Orquevaux⁶, E. Diot⁷, F. Sarrot-Reynaud⁸, A. Doria², A. Moltó⁹, C. Deneux-Tharaux¹⁰, N. Costedoat-Chalumeau¹ on behalf of GR2 Group. ¹AP-HP, Hôpital Cochin; Centre Référence Maladies Rares, Service de Médecine interne, Paris, France; ²University of Padova, Rheumatology Unit, Department of Medicine-DIMED, Padova, Italy; ³Centre Hospitalier Universitaire de Bordeaux, Service De Médecine Interne et Maladies Infectieuses, Bordeaux, France; ⁴AP-HP, Hôpital Saint-Antoine, Service de Médecine interne, Paris, France; ⁵CH Annecy Genevois, Service Infectiologie et médecine interne, Annecy, France; ⁶CHU de Reims-Robert Debré, Service de Médecine interne, Reims, France; ⁷CHRU de Tours - Hôpital Bretonneau, Service de Médecine interne, Tours, France; ⁸CHU Grenoble, Service de Médecine interne, Grenoble, France; ⁹AP-HP, Hôpital Cochin, Service de Rhumatologie B, Paris, France; ¹⁰Epidemiology and Statistics Research Center/CRESS, INSERM, INRA F-75004, Equipe Épopée, Paris, France

Background: Active Systemic Lupus Erythematosus (SLE) during pregnancy is associated with poor obstetrical outcome but it is still not clear if remission, lupus low disease activity state (LLDAS) is the best target to achieve at conception. Besides, the effect of damage on pregnancy outcome has not been studied.

Objectives: Our aim was to determine the 1st trimester risk factors for adverse pregnancy outcome (APO).

Methods: Inclusion criteria were: 1) women ≥18 years enrolled in the prospective GR2 study; 2) with SLE (SLICC criteria); 3) and an ongoing singleton pregnancy at 12 weeks (only 1 pregnancy per patient). We used the following definitions: DORIS¹, DORIA², clinical SLEDAI-2K=0, LLDAS³ (for SLE activity), SFI⁴ (for flares), and SLICC-damage index⁵ (for damage). APO included: foetal death, neonatal death, placental insufficiency with premature delivery <37 weeks, and small for gestational age (SGA: ≤3rd percentile).

Results: 238 patients were included. 234 (98.3%) women were on hydroxychloroquine (HCQ) and 206 (86.5%) had a clinical SLEDAI-2K=0. Regarding pregnancy outcome, 230 (96.6%) patients had a live birth (mean term 37.7 weeks). Thirty-four (14.3%) patients developed at least 1 APO: placental insufficiency

Table 1.

Univariate analysis for APO				
Maternal features	Total (N=238)	APO (N=34)	Non-APO (N=204)	P value
Age, mean (SD)	31.6(4.5)	30.7(4.8)	31.7(4.4)	0.22
Secondary APS	34(14.3)	10(29.4)	24(11.8)	0.01
Previous renal phenotype	67(28.2)	13(38.2)	54(26.5)	0.16
At least 1 flare during pregnancy	37(15.5)	6(17.4)	31(15.2)	0.80
Positive anti-DNA (N=222)	104(46.8)	21(67.7)	83(43.4)	0.01
Hypocomplementemia (N=216)	57(26.4)	13(40.6)	44(23.9)	0.05
LAC (N=232)	41(17.7)	15(44.1)	26(13.1)	<0.001
Triple aPL (N=232)	17(7.3)	5(14.7)	12(6.1)	0.08
24h-proteinuria>0.5g/day	9(3.8)	3(8.8)	6(2.9)	0.12
Activity/Damage				
SLEDAI-2K, median (IQR) (N=212)	2(0-3)	2(2-4)	2(0-2)	0.01
SLICC-DI, median (IQR) (N=236)	0(0-0)	0(0-0)	0(0-0)	0.007
PGA, median (IQR) (N=235)	0.1(0-0.2)	0.1(0-0.41)	0.1(0-0.2)	0.06
DORIA remission*	154(64.7)	17(50.0)	137(67.2)	0.05
DORIS remission**	147(61.8)	17(50.0)	130(63.4)	0.13
LLDAS (N=219)	157(71.7)	19(57.6)	138(74.2)	0.05
Clinical SLEDAI-2K=0	206(86.5)	28(82.4)	178(87.3)	0.44
Treatment				
Prednisone (PDN)	119(50.0)	23(67.7)	96(47.1)	0.03
PDN (mg/day) median (IQR)	7(5-10)	0(0-6)	5(0-10)	0.007
Immunosuppressants	57(24.0)	13(38.2)	44(21.6)	0.04
Hydroxychloroquine	234(98.3)	34(100.0)	200(98.0)	1.00
Low dose aspirin	165(69.3)	29(85.3)	136(66.7)	0.03
Low molecular weight heparin	61(25.6)	15(44.1)	46(22.6)	0.01

Legend: APS: antiphospholipid syndrome; aPL: antiphospholipid; PGA: Physician global assessment. *: DORIA definition of remission = clinical SLEDAI=0 and prednisone ≤5 mg/day; **: DORIS definition of remission = clinical SLEDAI=0, prednisone ≤5 mg/day, and PGA<0.5.

(n=22), foetal death (n=7), neonatal death (n=1), and SGA (n=5). Two different regression logistic models were assessed, one for DORIA and one for LLDAS. We found that only SLICC-Damage index and lupus anticoagulant (LAC) were associated with APO (p=0.02, OR 1.8, 95% CI: 1.1-2.9; p=0.001, OR 4.2, 95% CI: 1.8-9.7 respectively for DORIA model; p=0.03, OR 1.7, 95% CI: 1.1-2.8; p=0.002, OR 3.7, 95% CI: 1.6-8.7 respectively for LLDAS model).

Conclusion: We confirmed that LAC predicts APO. We found for the first time that chronic damage at 1st trimester also predicted APO. No effect of remission/LLDAS was observed in this cohort of patients on HCQ with a stable and well-controlled SLE.

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OP0296

THE 2021 DORIS DEFINITION OF REMISSION IN SLE – FINAL RECOMMENDATIONS FROM AN INTERNATIONAL TASK FORCE

R. van Vollenhoven^{1,2}, G. Bertsias³, A. Doria⁴, D. Isenberg⁵, E. F. Morand⁶, M. A. Petri⁷, B. Pons-Estel⁸, A. Rahman⁹, M. Ugarte-Gil⁹, A. Voskuyl^{10,11}, L. Arnaud¹², I. N. Bruce¹³, R. Cervera¹⁴, N. Costedoat-Chalumeau¹⁵, C. Gordon¹⁶, F. Houssiau¹⁷, M. Mosca¹⁸, M. Schneider¹⁹, M. Ward²⁰, C. Aranow²¹ on behalf of The DORIS Task Force. ¹Amsterdam UMC, Rheumatology and Clinical Immunology, Amsterdam, Netherlands; ²Amsterdam Rheumatology Center, Rheumatology, Amsterdam, Netherlands; ³University of Crete, Rheumatology, Heraklion, Greece; ⁴University of Padova, Medicine, Padova, Italy; ⁵University College London, Rheumatology, London, United Kingdom; ⁶Monash University, School of Clinical Sciences, Melbourne, Australia; ⁷Johns Hopkins University, Rheumatology, Baltimore, United States of America; ⁸Grupo Oroño - Centro Regional de Enfermedades Autoinmunes y Reumáticas (GO-CREAR), n/a, Rosario, Argentina; ⁹Universidad Científica del Sur, Medicine, Lima, Peru; ¹⁰Amsterdam UMC, Rheumatology and Clinical Immunology, Amsterdam, Netherlands; ¹¹Amsterdam Rheumatology Center, Rheumatology, Amsterdam, Netherlands; ¹²University Hospitals of Strasbourg, Rheumatology, Strasbourg, France; ¹³University of Manchester, Division of Musculoskeletal & Dermatological Sciences, Manchester, United Kingdom; ¹⁴Hospital Clinic, Autoimmune Diseases, Barcelona, Spain; ¹⁵AP-HP, Cochin Hospital, Internal Medicine, Paris, France; ¹⁶University of Birmingham, Rheumatology, Birmingham, United Kingdom; ¹⁷Cliniques universitaires Saint-Luc, Rheumatology, Brussels, Belgium; ¹⁸University of Pisa, Rheumatology, Pisa, Italy; ¹⁹Heinrich-Heine University, Rheumatology, Düsseldorf, Germany; ²⁰NIAMS/NIH, Intramural Research Program, Bethesda, United States of America; ²¹Feinstein Institute for Medical Research, n/a, Manhasset, United States of America

Background: Remission is the stated goal for both patient and care-giver (1), but consensus on a definition of remission has been lacking. Previously, an international task force consisting of patient representatives and medical specialists published a frame-work for such a definition (2), but without making a final recommendation.

Objectives: To achieve consensus around a definition of remission in SLE (DORIS).

Methods: The DORIS task force met annually from 2015 to 2020 and consisted of patient representatives and specialists in rheumatology, nephrology, dermatology, and clinical immunology. Systemic literature reviews of several key topics were done and specific research questions were examined in suitably chosen datasets. The findings were discussed, reformulated as recommendations, and voted upon. Level of evidence (LoE), strength of recommendation (SoR), and agreement were determined in standard fashion. The final recommendation for the DORIS definition of remission was established by electronic vote after finalization of the minutes of the most recent task force meeting.

Results: Based on data from the literature and from several SLE-specific data sets, five key recommendations were endorsed (Table 1) that should be seen as additions to those published previously (2). Literature reviews identified strong support for the face-, content-, construct- and criterion validity of the definition based on the clinical SLEDAI (not including anti-DNA and complement) equal to zero plus low physician global assessment and allowing stable medical treatment. Thus, the DORIS Task Force recommended a single definition of remission in SLE, based on clinical SLEDAI = 0, evaluator's global assessment <0.5 (0-3),

prednisone 5 mg/day or less, and stable antimalarials, immunosuppressives and biologics.

Table 1.

	Vote in favor	LoE	SoR	Agreement
1. Inclusion of serology [anti-DNA, complement] in the DORIS definition of remission-on-treatment does not meaningfully alter the construct validity and therefore it is not recommended to include it	90%	2a	B	8.38
2. While the goal of treatment is sustained remission, a definition of remission should be able to be met at any point in time; therefore, duration should not be included in the definition	100%	5	C	9.02
3. To date, the SLEDAI-based definitions of remission have formally been investigated more extensively than BILAG- or ECLAM-based definitions. The SLEDAI-based definitions can therefore more confidently be recommended	91%	2a	B	9.25
4. Remission off treatment, while the ultimate goal for many patients and providers, is achieved very rarely. In clinical research and as an outcome in clinical trials, the definition for remission-on-treatment is recommended	92%	2a	B	9.52
5. In clinical trials, the LLDAS definition for low disease activity and the DORIS definition of remission are both recommended as outcomes	100%	5	C	9.25

The 2021 DORIS definition of remission in SLE:

The 2021 DORIS definition of remission in SLE:

- cSLEDAI=0 and
- PhGA <0.5 (0-3)
 - irrespective of serology
 - the patient may be on antimalarials, low-dose glucocorticoids (prednisolone ≤5 mg/day), and/or stable immunosuppressives including biologics

Conclusion: The 2021 DORIS definition of remission in SLE was established. It is recommended for use as an aspirational treatment target in clinical care, a clear concept in education, and a key outcome in research including clinical trials and observational studies.

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OP0297

THE SLE-DAS ENABLES ACCURATE AND USER-FRIENDLY DEFINITIONS OF REMISSION AND CATEGORIES OF LUPUS DISEASE ACTIVITY: DERIVATION AND VALIDATION STUDY IN 1190 SLE PATIENTS

D. Jesus^{1,2}, M. Larosa³, C. Henriques^{4,5}, A. Matos^{4,6}, M. Zen³, P. Tomé^{4,6}, V. Alves^{4,6}, N. Costa⁴, V. Le Guern⁷, L. Iaccarino³, N. Costedoat-Chalumeau⁷, A. Doria³, L. Inês^{2,8}. ¹Centro Hospitalar de Leiria, Rheumatology Department, Leiria, Portugal; ²University of Beira Interior, Faculty of Health Sciences, Covilhã, Portugal; ³University of Padova, Division of Rheumatology, Padova, Italy; ⁴Institute of Viseu, Technology and Management, Viseu, Portugal; ⁵University of Coimbra, Centre for Mathematics, Coimbra, Portugal; ⁶Research Centre in Digital Services, CISEd, Viseu, Portugal; ⁷Cochin Hospital, Internal Medicine Department, Paris, France; ⁸Centro Hospitalar e Universitário de Coimbra, CHUC Lupus Clinic, Rheumatology Department, Coimbra, Portugal

Background: Treatment of systemic lupus erythematosus (SLE) is tailored according to the intensity of SLE disease activity and aims to achieve remission. Current definitions of remission and disease activity categories are mostly based on the SLE Disease Activity Index (SLEDAI), which has important limitations. The SLE Disease Activity Score (SLE-DAS) is a validated continuous disease activity score with higher accuracy in measuring SLE activity and higher sensitivity-to-change as compared to SLEDAI¹. SLE-DAS is user-friendly with its online calculator.

Objectives: To derive and validate the SLE-DAS cut-off values for defining SLE disease activity categories and SLE clinical remission state.

Methods: Derivation study was conducted at the Padova Lupus Clinic. Validation was performed prospectively in patients from the Cochin Lupus Clinic and by post-hoc analysis of BLISS-76 (NCT00410384) trial. Gold-standard for clinical remission state was fulfillment of Definition Of Remission In SLE (DORIS). In Padova and Cochin Clinics, at time of inclusion, a senior clinician classified each patient as presenting: (i) remission, (ii) mild, or (iii) moderate/severe disease activity. Derivation of the SLE-DAS cut-offs for disease activity categories was performed using ROC curve analysis against this expert clinical classification. Performance of these SLE-DAS categories of disease activity was assessed as compared with: (i) expert classification (in Cochin cohort); (ii) British Isles Lupus Assessment Group (BILAG) index (in BLISS-76). An index-based and a Boolean definition of remission were tested applying decision trees, using CHAID (chi-square automatic interaction detection) algorithm and their performance estimated.

Results: We included 1190 SLE patients (221 in Padova, 150 in Cochin and 819 from BLISS-76 cohorts). In the derivation cohort, best SLE-DAS cut-off values for disease activity categories were: (i) remission, SLE-DAS≤2.08; (ii) mild activity, 2.08<SLE-DAS≤7.10; (iii) moderate/severe activity, SLE-DAS>7.10. Table 1 shows the performance of these SLE-DAS cut-offs. The SLE-DAS Boolean-based definition of remission (all SLE-DAS clinical items scores = 0 and prednisone ≤5mg/day) showed sensitivity and specificity of 100% in the derivation (Padova) and validation (Cochin) clinical cohorts. The SLE-DAS index-based definition of remission (SLE-DAS ≤2.08 and prednisone ≤5mg/day) presented sensitivity =100% and specificity =97.4% in the derivation and validation clinical cohorts. The SLE-DAS definitions of remission were fully substantiated by CHAID.

Table 1. Performance of SLE-DAS cut-offs for remission and disease activity categories compared to physician's classification and BILAG (n =1190).

	Disease activity category	Sensitivity (%)	Specificity (%)	Accuracy (%)
Derivation Padova Cohort	Remission (SLE-DAS≤2.08)	99.3	97.1	98.6
	Mild Disease Activity (2.08<SLE-DAS≤7.10)	74.2	98.9	95.5
	Moderate and Severe Disease Activity (SLE-DAS>7.10)	97.4	96.7	96.8
Validation	Remission (SLE-DAS≤2.08)	99.1	93.9	98.0
Cochin Cohort	Mild Disease Activity (2.08<SLE-DAS≤7.10)	82.6	99.2	96.7
	Moderate and Severe Disease Activity (SLE-DAS>7.10)	100.0	98.6	98.7
Validation	Remission and Mild Disease Activity [§] vs. Moderate and Severe Disease Activity ^{§§} (SLE-DAS≤7.10 vs. >7.10)	91.4	84.1	90.8

§ Remission/Mild: No BILAG B or A scores §§ Moderate/severe: ≥1 BILAG B or A scores