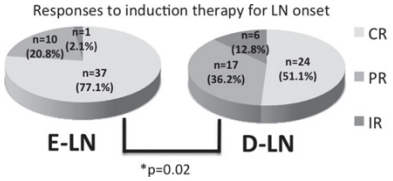
developed as a flare of systemic lupus erythematosus (SLE) after treating the prior non-renal SLE conditions successfully (delayed, D-LN) and LN manifesting at the time of SLE onset (early, E-LN).[1)] More frequent flares and higher serum titers of anti-dsDNA antibody during the LN flares were observed in D-LN than E-LN groups, suggesting that D-LN may reflect intractable SLE conditions. However, we had not analyzed whether there is a difference in the response to treatment between the two groups.

Objectives: This study investigated possible differences in the response to induction therapy between E-LN and D-LN.

Methods: We retrospectively examined 95 LN (48 E-LN, 47 D-LN) patients who attended our hospital between January 1991 and May 2016. All of them were diagnosed with SLE according to the American College of Rheumatology criteria and were shown to have LN on renal biopsy. First, we compared the clinical features of E-LN and D-LN, such as sex, age at SLE and LN onset, urinary protein, serum creatinine, serum anti-dsDNA titer, serum C3, prevalence of serum anti-Sm, renal biopsy histological types and induction therapy options at LN onset. Then we compared the response to therapy at 24 weeks for LN onset and flares between the two groups. The response to treatment was classified into complete response [CR; urine protein to creatinine ratio $<$50 mg/mmol and normal or near-normal (within 10%)GFR], partial response [PR; $\geq$50% reduction in proteinuria to sub-nephrotic levels and (near-) normal GFR], and insufficient response [IR; anything else]. We analyzed the data using chi-square test, Fisher's exact test and the Mann–Whitney *U*-test. We further evaluated predictors of treatment response at LN onset using univariate and forward stepwise multivariate Cox regression analysis.

Results: Higher serum C3 (56.4±22.4 *vs.* 46.3±22.7 mg/dl, p=0.03) were observed in D-LN groups. The proportion of histological types (I or II/III or III+V/IV or IV+V/V: 6/7/26/9 *vs.* 4/5/26/12, p=0.77) and induction therapy options at LN onset were similar between the two groups. However, the response to the therapy for LN onset was better in E-LN than D-LN (CR/PR/IR: 37/10/1 *vs.* 24/17/6, p=0.02) (Fig). Univariate Cox regression analysis indicated that severe proteinuria, elevated serum creatinine, class IV or IV+V on renal biopsy and D-LN were associated with non-CR (PR+IR) to induction therapy for LN onset ($p<0.05$). Multivariate Cox regression analysis including variables identified as significant in univariate analyses showed that severe proteinuria [hazard ratio (HR) 1.35, p=0.007] and D-LN [HR 4.96, p=0.003] were independent predictors of non-CR to the induction therapy. LN flares were observed in 13/48 E-LN and 20/47 D-LN patients, and IR was observed in 15.4% (2/13) of E-LN and 40.0% (8/20) of D-LN patients.



Conclusions: In this study, the relatively poorer treatment response was observed in D-LN compared with E-LN patients and D-LN was a predictor of poorer treatment response independent of renal histology and the severity of nephritis at LN onset.

References:

[1] Nakano M, et al. Different clinical features, serological profiles and activities in two onset categories of lupus nephritis. EULAR 2016 congress London, SAT 0313.

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THU0252 NAILFOLD CAPILLAROSCOPY IN SYSTEMIC LUPUS ERYTHEMATOSUS: A SYSTEMATIC REVIEW AND CRITICAL APPRAISAL

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Background: Systemic lupus erythematosus (SLE) is a rheumatic disease with common vascular involvement. Nailfold capillaroscopic changes have been described in SLE. Although, until today there is no clear role yet for capillaroscopy in classifying or staging the disease.

Objectives: To systematically review and critically appraise the literature on capillaroscopic changes described in SLE.

Methods: A sensitive search, on behalf of the EULAR study group on microcirculation in Rheumatic Diseases, was developed in Web Of Science, PubMed and Embase to identify all original research studies in which SLE patients had capillaroscopy. Two reviewers identified titles, abstracts and full texts. Exclusion criteria were: ACR criteria for SLE were not met, less than 5 patients were included in the study, there was no information on capillaroscopy in SLE, no original research or non-English language. All included articles underwent quality appraisal. Results were summarised according to density, dimensions, morphology, haemorrhages, semi quantitative assessment, qualitative assessment (see table) and correlation of capillaroscopic changes with clinical and laboratory parameters.

Results: From 172 articles captured, 36 articles were included in this review. The following capillaroscopic parameters were significantly more prevalent in SLE patients compared to healthy controls (see table): tortuous capillaries, abnormal morphology, haemorrhages, nailfold capillaroscopic score, "non-specific patterns" and "scleroderma like pattern". Hairpin shaped capillaries were significantly more prevalent in healthy controls compared to SLE patients. For clinical and laboratory parameters, Raynaud's phenomenon (RP), gangrene and 24 hours proteinuria were significantly correlated with capillaroscopic changes.

				Significant	Non-significant	Conclusion
Quantitative evaluation	Density	Mean density		4 studies	4 studies	Non-conclusive
		Avascularity		2 studies	0 studies	
	Dimensions	Diameter	Mean limb diameter	4 studies	2 studies	Non-conclusive
			Mean width	2 studies	2 studies	
			Enlarged width	4 studies	0 studies	
			Giant	1 study	0 studies	
		Length		3 studies	2 studies	Non-conclusive
	Morphology	Normal morphology		3 studies	0 studies	Significant more hairpin morphology in healthy controls compared to SLE patients and more tortuous capillaries in SLE patients compared to healthy controls
		Abnormal morphology		5 studies	0 studies	Significant more abnormal morphology in SLE patients compared to controls
	Haemorrhages			2 studies	0 studies	Significant more haemorrhages in SLE patients compared to controls
	NFC score			2 studies	0 studies	Significant higher NFC score in SLE patients compared to controls
Qualitative evaluation	Other patterns			1 study	0 studies	Significant more nonspecific and scleroderma-like pattern in SLE patients compared to controls

Conclusions: This first systematic review on capillaroscopy in SLE attests conclusive significant differences in morphology, haemorrhages, semi quantitative assessment, qualitative assessment and some clinical and laboratory parameters. Further large scale research is ongoing through the EULAR study group on microcirculation in Rheumatic Diseases to further define its role.

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THU0253 TRIPLE POSITIVITY TO ANTIPHOSPHOLIPID ANTIBODIES IN PRIMARY ANTIPHOSPHOLIPID SYNDROME: INCREASED RISK OF ARTERIAL THROMBOSES AND ABORTIONS

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Background: Triple positivity (TP) to antiphospholipid antibodies (aPL) has been associated with increased risk of thrombotic and gestational events in different populations of antiphospholipid syndrome (APS) patients. Nonetheless, the majority of the studies evolved APS secondary to systemic lupus erythematosus (SLE).

Objectives: To investigate whether TP increases the risk of criteria and non-criteria manifestations in primary APS (pAPS) patients.

Methods: A cross-sectional study was performed in a group of 74 outpatients who fulfilled APS classification criteria (Sydney; N=67) or with thrombocytopenia and persistent circulating aPL, but no criteria manifestations of APS (N=7), seen in our department. Clinical and serological features collected during medical

Table 1. Demographic and clinical characteristics

Variable	Triple positivity (N=19)	No triple positivity (N=55)	P value
Age	41.7±10.3	44±13.5	NS
Female gender	17 (89.5)	44 (80.0)	NS
Caucasian	14 (73.7)	37 (67.3)	NS
Time first manifestation (mo)	143 (97–240)	124.7 (67–176)	NS
Time diagnosis (mo)	55 (26–134)	64 (43–103)	NS
Criteria manifestations*			
Thrombotic	17 (89.5)	45 (81.8)	NS
Arterial	10 (52.6)	17 (30.3)	NS
Venous	10 (52.6)	35 (63.6)	NS
Abortion 3+	3 (20.0)†	1 (2.8)††	p=0.043
Thrombotic + obstetric	10 (58.8)‡	10 (23.8)‡‡	p=0.008
Non criteria			
Livedo	9 (47.4)	11 (20.0)	p=0.023
Thrombocytopenia	7 (36.8)	10 (18.2)	NS
Valvulopathy**	2 (10.5)	6 (10.9)	NS
Raynaud phenomenon	7 (36.8)	12 (21.8)	NS
Leg ulcers	1 (5.3)	4 (7.3)	NS
Nephropathy	0	1 (1.8)	NS
Migraine	8 (42.1)	25 (45.5)	NS

*N=67; **N=49; †N=15; ††N=36; ‡N=17; ‡‡N=42. Mo = months. NS = not significant, NA = not applicable. Values showed as N (%) for categorical variables, Mean ± SD for normal distribution and Median (interquartil range) for asymmetrical distribution.