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FRI0225 THE EULAR/ACR 2018 AND SLICC 2012 HAVE INCREASED SENSITIVITY AGAINST THE ACR 1997 CLASSIFICATION CRITERIA AND CLASSIFY NON-OVERLAPPING GROUPS OF SLE PATIENTS: SIMULTANEOUS APPLICATION ASSURES THE GREATEST CAPTURE OF PATIENTS IN CLINICAL PRACTICE

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Background: A joined EULAR/ACR initiative has proposed a new set of classification criteria for SLE based on weighted items and the use of ANA as an entry criterion.

Objectives: To compare the diagnostic performance of the old and new classification criteria against physician diagnosis in an early SLE cohort and examine phenotypic and prognostic differences among patients who are classified with the criteria.

Methods: Adult patients diagnosed by experienced physicians with SLE (n=690) or control diseases (n=301) during 2005-2016 and followed-up at least 6 months. All sets of criteria (ACR 1997, SLICC 2012, EULAR/ACR 2018) were applied. Hazard models were used to calculate elapsed time between the earliest item (of any criterion) and classification. Severity of SLE (BILAG-2004 glossary) and the SLICC/ACR organ damage index were determined.

Results: The SLICC and EULAR/ACR had increased overall sensitivity as compared to the ACR criteria (91.3%, 88.6%, 85.7%, respectively; p<0.01), especially in early-onset (<3 years) disease (91.4%, 87.3%, 79.9%, respectively; p<0.001), with comparable specificity rates (ranging 91.0–92.7%). By combining the three criteria sets, 97.1% of patients were classified. Both the EULAR/ACR and the SLICC enabled earlier SLE classification (median time-to-classification: 7.1 and 7.6 months, respectively) than the ACR criteria (median 9.1 months). Nevertheless, disease classification was delayed by >3 months in 17.3–19.9% of cases, particularly in neurological SLE (20.0–26.8%). Comparative analysis of patients who were missed by the criteria revealed significant differences in rates of individual clinical and serological features (Table 1) suggesting that existing criteria may classify non-overlapping groups of patients. Importantly, unclassified patients presented with a high prevalence of moderate/severe disease (43.3–60%) and organ damage (30–50%).

Conclusion: Despite improved sensitivity and earlier classification with the EULAR/ACR and the SLICC criteria, still SLE diagnosis may be missed or delayed even in patients with moderate to severe disease, especially neurological-dominant disease. Simultaneous application in clinical practice assures the greatest capture of patients.

Table 1. Prevalence of clinical and immunological features across groups of SLE patients who were not classified by the criteria

	Missed by the				P value
	ACR 1997	SLICC 2012	EULAR/ACR 2018	All three criteria	
	n=99	n=60	n=79	n=20	
SLICC 2012 items					
ACLE	49.5%	80.0%	72.2%	60.0%	<0.001
CCLE	10.1%	8.3%	17.7%	5.0%	0.206
Alopecia	42.4%	36.7%	63.3%	45.0%	0.008
Ulcers	12.1%	23.3%	51.9%	15.0%	<0.001
Synovitis	69.7%	86.7%	74.7%	65.0%	0.076
Serositis	6.1%	10.0%	12.7%	10.0%	0.506
Renal disorder	3.0%	3.3%	6.3%	10.0%	0.455
Neurologic disorder	8.1%	6.7%	6.3%	20.0%	0.232
Hemolytic anemia	3.0%	0.0%	2.5%	0.0%	0.503
Leukopenia	20.2%	15.0%	27.8%	10.0%	0.166
Thrombocytopenia	18.2%	6.7%	12.7%	10.0%	0.205
Anti-DNA	18.2%	3.3%	0.0%	0.0%	<0.001
Anti-Sm	2.0%	0.0%	1.3%	0.0%	0.664
Anti-phospholipid Ab	18.2%	1.7%	11.4%	5.0%	0.011
Low complement	43.4%	3.3%	21.5%	5.0%	<0.001
Coombs test	5.1%	0.0%	2.5%	0.0%	0.232
ANA	84.8%	56.7%	44.3%	50.0%	<0.001

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FRI0226 LOW EXPRESSION OF ESTROGEN RECEPTOR BETA IN RENAL TUBULAR EPITHELIAL CELL MAY CONTRIBUTE TO HYPERURICEMIA IN PREMENOPAUNTED STATES OF AMERICAL FEMALE SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: We have reported that the incidence of hyperuricemia of young female systemic lupus erythematosus (SLE) patients was higher than that of healthy young women^[1]. Whether the estrogen receptor (ER) expressed in renal tubular tissue contributes to it? There are few reports yet.

Objectives: To investigate the expression of ERs in the renal tubular cells and their relationship with serum uric acid (UA) levels in premenopausal female SLE patients.

Methods: Eighteen kidney biopsy specimens of premenopausal female SLE patients served as the lupus nephritis group (LN group), and 12 specimens of premenopausal female IgA nephropathy patients served as the IgA group. Serum UA levels and kidney index were collected, and the expression of ERs in the renal tubular epithelial cell of the two groups were determined by immunohistochemistry. According to the