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Using the American College of Rheumatology and Systemic Lupus International Collaborating Clinics Criteria to Determine the Diagnosis of Systemic Lupus Erythematosus in Patients with Subacute Cutaneous Lupus Erythematosus

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Abstract

Background—Approximately 50% of patients with subacute cutaneous lupus erythematosus (SCLE) meet criteria for systemic lupus erythematosus (SLE). The Systemic Lupus International Collaborating Clinics (SLICC) developed new SLE criteria to improve the American College of Rheumatology (ACR) criteria but the SLICC criteria has not been evaluated in SCLE patients.

Objective—We sought to determine how SCLE/SLE patients meet the ACR and SLICC criteria to compare the two sets of criteria.

Methods—This was a retrospective analysis of 107 SCLE patients enrolled in a database at the University of Pennsylvania.

Results—Patients with SCLE/SLE were more likely than SCLE-only patients to have oral ulcers, positive anti-dsDNA antibodies, and positive ANA tests using both sets of criteria. Patients with SCLE/SLE were also more likely to have low complement using the SLICC criteria. There was a statistically insignificant increase in individuals meeting the SLICC criteria.

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This study was approved by the institutional review board at the University of Pennsylvania

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Limitations—Not all patients received comprehensive laboratory testing.

Conclusions—Most SCLE patients who formally meet criteria for SLE do so based on the laboratory and mucocutaneous criteria. Neither the ACR nor SLICC criteria distinguish SCLE patients with major internal disease from SCLE patients without major internal disease.

BACKGROUND

Subacute cutaneous lupus erythematosus (SCLE) is a subtype of cutaneous lupus erythematosus (CLE) characterized by scaly erythematous papules arranged in a psoriasiform (papulosquamous) or annular morphology^{1,2}. Approximately 50% of patients with SCLE meet criteria for systemic lupus erythematosus (SLE)^{1,2}. Despite this SLE categorization, it is believed that these SCLE/SLE patients have a lower incidence of severe central nervous system disease, renal disease, and severe systemic vasculitis than SLE patients without SCLE¹⁻³. Although one study has suggested that SCLE patients may have as much or even greater renal and neurologic disease as SLE patients without SCLE⁴, several other studies have demonstrated that patients with SCLE are less likely than those with SLE to have hematologic abnormalities, arthritis, nephritis, central nervous system disease, and certain auto-antibodies⁵⁻⁷. Furthermore, past studies suggest that SCLE patients most commonly fulfill the American College of Rheumatology (ACR) criteria by the malar rash, discoid rash, photosensitivity, hematologic disorder, and positive anti-nuclear antibody (ANA) criteria – or in other words, by fulfilling criteria that are considered primarily mucocutaneous or laboratory rather than manifestations of systemic internal disorders⁸⁻⁹.

The criteria for SLE itself have undergone changes in recent years. The generally accepted 1997 ACR classification criteria for SLE, which was an unvalidated update of the 1982 ACR criteria, have been scrutinized for redundancy in certain cutaneous criteria and exclusion of newer immunological markers for SLE. Several systems of classification, such as the Boston Weighted Criteria, were proposed in the wake of these concerns to refine the criteria using new statistical models. Ultimately, the Systemic Lupus International Collaborating Clinics (SLICC) group convened to produce a more definitive revision of the SLE criteria. The SLICC criteria, published in 2012, expands the total number of criteria from 11 to 17; requires the fulfillment of four criteria, at least one of which must be clinical and one of which must be immunologic; permits those with biopsy-proven lupus nephritis in the presence of ANA or anti-dsDNA antibodies to meet criteria for SLE on this basis alone; redefines the cutaneous criteria to incorporate SCLE and less common forms of chronic cutaneous lupus erythematosus (CCLE) such as lupus tumidus and lupus panniculitis; includes non-scarring alopecia as a criterion; relies on a clinical rather than radiographic definition of synovitis; clarifies the methods by which proteinuria may be detected; enlarges the neurologic manifestations of SLE; alters the hematological criteria; and lists several more immunological markers such as low complement levels¹⁰. Studies comparing the SLICC to the ACR classification systems have shown that the SLICC is more sensitive than the ACR when classifying SLE patients and may identify SLE patients earlier in their disease course¹⁰⁻¹⁵. A direct comparison of the two classification systems applied to CLE has never been published.

METHODS

Patients with CLE presenting to the outpatient Autoimmune Skin Diseases clinic at the University of Pennsylvania were invited to enroll in a database of CLE patients. All patients were at least 18 years of age with a diagnosis of CLE or SLE as supported by clinical, histologic, or serologic evidence. The study was approved by the institutional review board at the University of Pennsylvania.

Database

The database was analyzed for all patients with a clinical diagnosis of SCLE enrolled between January 5, 2007 and October 31, 2014. From an overall total of 370 subjects enrolled in the database during this time span, 107 had diagnoses of SCLE. Of these, 19 patients were excluded from the study because they had one or more concurrent diagnoses of another CLE subtype, and an additional 3 were excluded because they did not have an existing electronic medical record with which to verify data. This left 85 patients with SCLE whose data could be verified using the electronic medical record. These 85 SCLE patients fell into the following clinical subtypes: papulosquamous (n=60), annular (n=15), mixed papulosquamous and annular (n=9), and unspecified (n=1).

Criteria

Patients were then assessed to see which of the 1997 ACR and the 2012 SLICC criteria they met. Assessments were performed by obtaining information from database entries and subsequently verifying the information through electronic medical record review.

Patients who met four or more of the ACR criteria were classified as SCLE/SLE, and those not meeting four criteria were classified as SCLE-only. Patients were separately classified as SCLE/SLE and SCLE-only using the SLICC criteria, for which at least four criteria with at least one clinical criterion and one immunologic criterion was required to be considered SCLE/SLE. For each criterion, the Fisher's exact test was used to assess the statistical difference between the SCLE/SLE patients and SCLE-only patients to meet the given criteria. A significance level of 0.003 was used for each test to account for multiple comparisons by the conservative Bonferroni method. The counts and frequencies of patients in each category are reported (Tables II and III).

Although not part of either set of criteria for SLE, SSA/Ro data from the patients was gathered, as SCLE is strongly associated with anti-SSA/Ro antibody production¹⁶. A two-by-two table showing the counts and frequencies of patients with and without ANA and anti-SSA/Ro antibodies is given (Table V). Additionally, the counts and frequencies of patients with and without photosensitivity and anti-SSA/Ro antibodies are presented (Table VI). Patients with missing data values were excluded and the n-values adjusted accordingly.

RESULTS

Sample description

We included 85 patients with a diagnosis of SCLE. Patients presented to the Autoimmune Skin Disease clinic at the University of Pennsylvania, in Philadelphia, PA. Characteristics of the study population are presented in Table I.

1997 ACR Criteria

Using the ACR criteria, 30 patients (35%) with SCLE also met criteria for SLE, and 55 patients with SCLE did not meet criteria for SLE. Patients with SCLE/SLE were more likely than those with SCLE-only to have oral ulcers (60% vs. 9%, $p<0.0001$), a positive anti-dsDNA antibody test (50% vs. 6%, $p=0.0003$), and a positive ANA test (97% vs. 35%, $p<0.0001$). Criteria showing a trend toward significance include hematological disorder (50% vs. 18%, $p=0.0049$) and photosensitivity (97% vs. 71%, $p=0.0041$).

2012 SLICC Criteria

Using the SLICC criteria, 34 patients (40%) with SCLE also met criteria for SLE, and 51 patients with SCLE did not meet criteria for SLE. Similar to results from using the ACR criteria, patients with SCLE/SLE were more likely than those with SCLE-only to have oral/nasal ulcers (53% vs. 10%, $p<0.0001$), a positive anti-dsDNA antibody test (46% vs. 3%, $p=0.0002$), and a positive ANA test (91% vs. 34%, $p<0.0001$). In addition, patients with SCLE/SLE were found to be more likely than those with SCLE-only to have low complement (56% vs. 9%, $p=0.0008$) using the SLICC criteria. Criteria showing a trend toward significance include synovitis (59% vs. 28%, $p=0.0063$) and leukopenia (61% vs. 28%, $p=0.0053$).

Comparison of 1997 ACR and 2012 SLICC Criteria

Applying the ACR criteria resulted in the categorization of four patients as SCLE/SLE who did not otherwise meet criteria for SLE under the SLICC classification system. Applying the SLICC criteria resulted in the re-categorization of eight patients as SCLE/SLE, for a net total of four more patients who met criteria for SLE under the SLICC criteria (Table IV). The increase in patients who were categorized as SCLE/SLE under the SLICC criteria was not significant ($p=0.6350$).

ANA and anti-SSA/Ro antibody

Of the 69 patients with available data, 41 (59.4%) tested positive for the anti-SSA/Ro antibody. Thirty-two (78.0%) of these 41 were also ANA-positive and nine (22.0%) were ANA-negative. Of the 28 (40.6%) patients who were negative for anti-SSA/Ro antibody, 10 (35.7%) were ANA-positive and 18 (64.3%) were ANA-negative.

Photosensitivity and anti-SSA/Ro antibody

Of the 73 patients with available data, 44 (60.2%) tested positive for anti-SSA/Ro antibody. Thirty-eight (81.8%) of these 44 indicated that they were photosensitive and eight (18.2%)

not photosensitive. Of the 29 (39.7%) patients who were negative for anti-SSA/Ro antibody, 22 (75.9%) endorsed photosensitivity and seven (24.1%) denied photosensitivity.

DISCUSSION

Most previous studies comparing SCLE patients to SLE patients without SCLE have demonstrated that SCLE patients are less likely to have severe renal and central nervous system disease, suggesting that SCLE differs from SLE by involving less internal organ disease^{1,5-9}. Our study found that SCLE patients who formally met criteria for SLE were no more likely than their SCLE-only counterparts to have significant systemic disease. Renal disease and central nervous system disease were no more frequent in SCLE patients who met SLE criteria than in SCLE patients who did not. Those criteria found to be more frequent in SCLE/SLE patients than in SCLE-only patients include oral ulcers, a positive ANA test, and a positive anti-dsDNA test. Using the SLICC criteria, we found that low complements were also increased in SCLE/SLE patients compared to SCLE-only patients. These findings are consistent with the existing literature that associates SCLE with less severe internal disease^{1,5-9}.

However, certain limitations in the methodology of this study must be noted. Incomplete data is an issue in this study because patients did not uniformly receive every laboratory test included in the classification criteria. Institution-specific testing practices at the University of Pennsylvania discourage physicians from ordering anti-dsDNA tests for patients who do not have already have a positive ANA test. Similarly, more specific but less sensitive immunological tests such as anti-Smith and antiphospholipid antibodies are not typically ordered in the absence of positive ANA and anti-dsDNA tests. This practice is most obvious with the direct Coombs' test, which appears in both the ACR and SLICC criteria; none of our 85 SCLE patients received this test. Specifically for the SLICC criteria in which hemolytic anemia constitutes a criterion in itself, very few patients received a complete workup for hemolytic anemia following a complete blood count in which hematocrit or red blood cell count was low. In theory, this incomplete laboratory testing may underestimate the number of patients who meet SLE criteria and therefore misassign patients as SCLE-only when they may be considered SCLE/SLE. As a result, more dramatic differences between the two sets of criteria may not have been observed. However, in practice, patients who are more symptomatic receive more complete laboratory testing, and this bias may counter the incomplete laboratory data limitation by selecting patients who realistically could be categorized as SCLE/SLE.

The comparison between the ACR and SLICC classification criteria in our SCLE population yielded largely similar findings between the two. The net increase of four patients who met criteria for SLE under the SLICC criteria was not statistically significant. For the four patients who met the ACR criteria for SLE but did not meet the SLICC criteria for SLE, all four failed to meet the SLICC criteria because photosensitivity no longer constituted a separate criterion. This suggests that the SLICC criteria benefits from the exclusion of photosensitivity, as the four SCLE/SLE patients who met criteria under the ACR do not have systemic disease and are appropriately classified as SCLE-only using the SLICC criteria.

The eight patients who met criteria for SLE under the SLICC criteria but not under the ACR criteria did not meet the required number of ACR criteria for a variety of reasons. Most common was the absence of SCLE as a criterion under the ACR scheme. The SLICC criterion of acute cutaneous lupus was expanded from the ACR's analogous malar rash criterion to include a variety of forms of CLE including SCLE. Since all patients included in this study had a diagnosis of SCLE, all patients automatically fulfilled this criterion under the SLICC criteria but did not necessarily meet the malar rash criterion under the ACR. The leukopenia criterion as defined in the SLICC criteria also accounted for a number of new patients who met criteria for SLE. In the ACR criteria, a white blood cell (WBC) count of less than $4000/\text{mm}^3$ on at least two occasions, an absolute neutrophil cell (ANC) count of less than $1500/\text{mm}^3$ on at least two occasions, or a platelet count of less than $100,000/\text{mm}^3$ at any time was required to meet the hematologic disorder criterion. Under the SLICC, the hematologic disorder criterion was expanded into three separate criteria: one instance of leukopenia or lymphopenia in which WBC is less than $4000/\text{mm}^3$ or ANC is less than $1000/\text{mm}^3$ respectively, thrombocytopenia in which platelets are less than $100,000/\text{mm}^3$, and hemolytic anemia. The original study publishing the SLICC criteria reported that statistical modeling did not show a difference between one or at least two instances of leukopenia or lymphopenia¹⁰, but our results suggest that for at least some patients, the difference between the two definitions of leukopenia contributed to their meeting the SLICC criteria for SLE. Finally, the inclusion of low complement and alopecia criteria under the SLICC accounted for a small number of patients who met criteria for SLE using the SLICC but not the ACR criteria. These differences suggest that laboratory values play a bigger role in classifying individuals as SLE under the SLICC criteria; 56% of our SCLE/SLE patients had low complements, and 61% qualified for the leukopenia or lymphopenia criterion as defined by the SLICC criteria. As one of the goals of developing the SLICC criteria was to increase the inclusiveness of the criteria for SLE clinical trials¹⁰, the stronger representation of laboratory values in the SLICC criteria may contribute to this effort. However, as our findings demonstrate that many of these SCLE/SLE patients meet criteria for SLE largely based on laboratory values and mucocutaneous criteria, the clinical relevance of classifying these patients as SLE is diminished. It is outside the scope of this study to propose a new set of SLE criteria, but we hope the results of this study prompt further discussion of the criteria.

Finally, the results of this study affirm the association between SCLE and anti-SSA/Ro antibodies. Sontheimer *et al.* reported in 1982 that 15 of 24 SCLE patients (62.5%) tested positive for anti-SSA/Ro antibody¹⁷; we found that 44 of 80 SCLE patients (55.0%) tested positive for anti-SSA/Ro antibody. Of Sontheimer's cohort, seven were positive for both ANA and anti-SSA/Ro antibodies, 10 were positive for ANA but negative for anti-SSA/Ro antibodies, and two were negative for both ANA and anti-SSA/Ro antibodies. His results suggest that ANA-positive patients may test either positive or negative for anti-SSA/Ro antibody, which our results confirm. Our findings furthermore suggest that ANA-negative patients may similarly test either positive or negative for anti-SSA/Ro antibody, with nine of 27 (33.3%) ANA-negative SCLE patients also testing positive for anti-SSA/Ro antibody. Photosensitivity, long known to be a trigger of SCLE¹⁶, does not appear to have a clear

relationship with anti-SSA/Ro antibody; of 58 photosensitive SCLE individuals, 36 (62.1%) tested positive for anti-SSA/Ro antibody and 22 (37.9%) negative.

In conclusion, this study serves as an important comparison of the ACR and SLICC criteria in the CLE population. As expected, SCLE patients, even those who formally meet criteria for SLE, are largely free of severe systemic disease. The diagnosis of SLE in these patients does not imply serious systemic disease, since SCLE patients commonly meet criteria for SLE based on mucocutaneous findings, immunological markers, and serological abnormalities. Both the ACR and SLICC criteria for SLE identify SCLE patients with often relatively minimal systemic disease.

RESEARCH PROTOCOL

As a retrospective study using data from an ongoing database, this study followed the database protocol in gathering initial data.

Database Protocol

Patients with cutaneous lupus erythematosus (CLE) presenting to the outpatient Autoimmune Skin Diseases clinic at the University of Pennsylvania were invited to enroll in a database of CLE patients. All patients were at least 18 years of age with a diagnosis of CLE or SLE as supported by clinical, histologic, or serologic evidence. Enrollees provided information regarding their disease diagnosis, medications, current and former symptoms, and laboratory results. Subjects' skin disease was assessed using the Cutaneous Lupus Erythematosus Disease Area and Severity Index v.2. Subjects also filled out quality of life surveys.

Retrospective Data Review

The database was analyzed for all patients with a clinical diagnosis of SCLE enrolled between January 5, 2007 and October 31, 2014. Patients were excluded from the study if they had one or more concurrent diagnoses of another CLE subtype or if they did not have an existing electronic medical record with which to verify data.

ACR Criteria

Patients were then assessed to see which of the 1997 ACR criteria they met. Assessments were performed by obtaining information from database entries and subsequently verifying the information through electronic medical record review.

Patient records were required to confirm each ACR criteria in specific ways. In order for a patient to meet criteria for malar rash, discoid rash, photosensitivity, oral ulcers, arthritis, and pleuritis/pericarditis, either database entry indicating the presence of the criteria or physician documentation of the criteria in the patient chart was necessary. Patients meeting criteria for renal disorder had either indicative laboratory reports (proteinuria >0.5 g/day; or at least 3+ proteinuria; or red blood cell, hemoglobin, granular, tubular, or mixed cellular casts) or documentation in physician notes of persistent proteinuria secondary to lupus. For the neurologic disorder criterion, physician documentation of a primary seizure disorder in

the absence of another known cause was required. For the hematologic disorder criterion, acceptable laboratory report results were as follows: a white blood cell count of less than 4000/mm³ on at least two occasions, an absolute lymphocyte cell count of less than 1500/mm³ on at least two occasions, or a platelet count of less than 100,000/mm³ at any time. Physician documentation of white cell and platelet counts within a patient note was an acceptable alternative to meet the hematologic disorder criterion. For the immunologic disorder criterion, patients were evaluated for each constituent laboratory test separately. Positive anti-dsDNA, anti-Smith, anticardiolipin, lupus anticoagulant, and rapid plasma reagin tests, as well as prolonged dilute Russell viper venom time (dRVVT), by laboratory report or physician documentation were noted if performed. A positive ANA titer equal to or greater than 1:160 by laboratory report or physician documentation of positive ANA was necessary to meet criteria for positive ANA.

SLICC Criteria

Patients were also assessed to see which of the 2012 SLICC criteria they met. As with the ACR criteria, assessments were performed by obtaining information from database entries and subsequently verifying the information through electronic medical record review. All patients met the acute cutaneous lupus criterion, since a diagnosis of SCLE is one way to meet this criterion. Study design excluded those who had a diagnosis of chronic cutaneous lupus erythematosus (CCLE). In order for a patient to meet criteria for oral or nasal ulcers, arthritis, and serositis, either database entry indicating the presence of the criteria or physician documentation of the criteria in the patient chart was necessary. Patients met criteria for alopecia by physician diagnosis of non-scarring alopecia felt to be secondary to lupus. To meet criteria for leukopenia or lymphopenia, laboratory report or physician documentation of white cell count less than 4000/mm³ or absolute lymphocyte count less than 1000/mm³ was necessary. To meet criteria for thrombocytopenia, laboratory report or physician documentation of platelet count less than 100,000/mm³ was necessary. All red blood cell counts or hemoglobin levels lower than normal laboratory values were noted.

For the immunologic criteria, laboratory report or physician documentation for the following was necessary: ANA titer equal to or greater than 1:160, positive anti-dsDNA, positive anti-Smith, positive lupus anticoagulant, positive anticardiolipin antibodies, positive beta-2-glycoprotein, and levels of C3, C4, or CH50 below the normal laboratory level.

STATISTICAL ANALYSIS PLAN

Patients who met four or more of the ACR criteria were classified as SCLE/SLE and those not meeting four criteria were classified as SCLE-only. For each of the criteria, the Fisher's exact test was used to assess the statistical difference between the SCLE/SLE patients and SCLE-only patients to meet the given criteria. A significance level of 0.003 was used for each test to account for multiple comparisons by the conservative Bonferroni method. For the SLICC criteria analysis, patients were reclassified as SCLE/SLE and SCLE-only based on whether they met at least four of the SLICC criteria, with at least one clinical criterion and one immunologic criterion. The same methods and test-wise significance level were used as for the ACR criteria.

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ABBREVIATIONS

ACLE	acute cutaneous lupus erythematosus
ACR	American College of Rheumatology
ANA	anti-nuclear antibody
ANC	absolute neutrophil count
CCLE	chronic cutaneous lupus erythematosus
CLE	cutaneous lupus erythematosus
dRVVT	dilute Russell viper venom time
SCLE	subacute cutaneous lupus erythematosus
SLE	systemic lupus erythematosus
SLICC	Systemic Lupus International Collaborating Clinics
WBC	white blood cell

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Capsule summary

- The SLICC criteria for SLE is thought to be more sensitive than the ACR criteria
- For SCLE patients, neither the ACR nor the SLICC criteria distinguishes patients with major internal disease from those without
- Clinicians should not rely on these criteria to identify SCLE patients with significant systemic disease

Table I

Characteristics of the SCLE study population

Number of SCLE patients	85
Ethnicity	
White/Caucasian	97.6%
Female gender (%)	77.6%
Age at study entry (mean $\pm$ SD, years)	56.0 $\pm$ 15.0
Age at SCLE onset (mean $\pm$ SD, years)	48.6 $\pm$ 17.6
SCLE duration since diagnosis (median, IQR, years)	3.7, 8.8

Table II

ACR Criteria

	SCLE w/ SLE (N=30)			SCLE w/o SLE (N=55)			P-value
	Positive	No. Tested	Percentage (%)	Positive	No. Tested	Percentage (%)	
Malar rash	13	30	43.3	13	55	23.6	0.0845
Photosensitivity	29	30	96.7	39	55	70.9	0.0041
Oral ulcers	18	30	60.0	5	55	9.1	0.0001 *
Arthritis	18	30	60.0	16	55	29.1	0.0102
Serositis	1	30	3.3	0	55	0.0	0.3529
Renal disorder	5	26	19.2	1	38	2.6	0.0364
Neurologic disorder	2	30	6.7	1	55	1.8	0.2833
Hematologic disorder	15	30	50.0	9	50	18.0	0.0049
<i>Leukopenia</i>	13	30	43.3	9	50	18.0	0.0200
<i>Thrombocytopenia</i>	5	30	16.7	1	50	2.0	0.0257
Immunologic disorders							
<i>Anti-dsDNA</i>	11	22	50.0	2	33	6.1	0.0003 *
<i>Anti-Smith</i>	5	14	35.7	1	20	5.0	0.0608
<i>Anticardiolipin</i>	6	16	37.5	1	11	9.1	0.1832
<i>Lupus anticoagulant</i>	1	3	33.3	1	5	20.0	1.0000
ANA	28	29	96.6	17	48	35.4	0.0001 *

* Significant values using significance level of $p < 0.003$

Table III

SLICC Criteria

	SCLE w/ SLE (N=34)			SCLE w/o SLE (N=51)			P-value
	Positive	No. Tested	Percentage (%)	Positive	No. Tested	Percentage (%)	
Acute/Subacute							
Cutaneous Lupus	34	34	100.0	51	51	100.0	
Oral/nasal ulcers	18	34	52.9	5	51	9.8	0.0001 *
Alopecia	4	34	11.8	2	51	3.9	0.2119
Synovitis	20	34	58.8	14	51	27.5	0.0063
Serositis	1	34	2.9	0	51	0.0	0.4000
Renal	4	29	13.8	0	36	0.0	0.0351
Neurologic	3	34	8.8	0	51	0.0	0.0606
Anemia	16	33	48.5	12	47	25.5	0.0559
Leuko-/lymphopenia	20	33	60.6	13	47	27.7	0.0053
Thrombocytopenia	5	33	15.2	1	47	2.1	0.0765
ANA	30	33	90.9	15	44	34.1	0.0001 *
Anti-dsDNA Ab	12	26	46.2	1	29	3.4	0.0002 *
Anti-Smith Ab	5	15	33.3	1	19	5.3	0.0663
Antiphospholipid Ab	8	19	42.1	1	11	9.1	0.1000
<i>Lupus Anticoagulant</i>	2	5	40.0	0	3	0.0	0.4643
<i>Anticardiolipin</i>	7	17	41.2	0	10	0.0	0.0261
<i>Beta-2-glycoprotein</i>	4	10	40.0	0	3	0.0	0.4965
Low complement	15	27	55.6	2	22	9.1	0.0008 *

* Significant values using significance level of $p < 0.003$

Table IV

Patients who met only one set of criteria for SLE

Patient	ACR Criteria	SLICC Criteria	Limiting Factor
140	Malar rash	ACLE	Absence of photosensitivity as criterion under SLICC
	Oral ulcers	Oral/nasal ulcers	
	Photosensitivity	---	
	Positive ANA	Positive ANA	
278	Malar rash	ACLE	Absence of photosensitivity as criterion under SLICC
	Photosensitivity	---	
	Arthritis	Synovitis	
	Positive ANA	Positive ANA	
304	Malar rash	ACLE	Absence of photosensitivity as criterion under SLICC
	Photosensitivity	---	
	Arthritis	Synovitis	
	Positive ANA	Positive ANA	
365	Malar rash	ACLE	Absence of photosensitivity as criterion under SLICC
	Photosensitivity	---	
	Hematologic disorder	Leukopenia	
	Positive ANA	Positive ANA	
38	---	ACLE	Absence of SCLE and low complement as criteria under ACR
	Photosensitivity	---	
	Arthritis	Synovitis	
	Positive ANA	Positive ANA	
	---	Low complement	
112	---	ACLE	Absence of SCLE and stricter hematologic criteria under ACR
	Photosensitivity	---	
	Neurologic disorder	Neurologic	
	---	Leukopenia	
	Positive ANA	Positive ANA	
175	---	ACLE	Absence of SCLE and low complement as criteria under ACR
	Photosensitivity	---	
	Arthritis	Synovitis	
	Hematologic disorder	Leukopenia	
	---	Low complement	
248	---	ACLE	Absence of SCLE and alopecia as criteria under ACR
	---	Alopecia	
	Hematologic disorder	Leukopenia	
	Positive ANA	Positive ANA	

Patient	ACR Criteria	SLICC Criteria	Limiting Factor
303	---	ACLE	Absence of SCLE and stricter hematologic criteria under ACR
	---	Leukopenia	
	Positive ANA	Positive ANA	
	Positive anti-dsDNA	Positive anti-dsDNA	
314	---	ACLE	Absence of SCLE and stricter hematologic criteria under ACR
	Photosensitivity	---	
	Oral ulcers	Oral/nasal ulcers	
	---	Leukopenia	
	Positive ANA	Positive ANA	
318	---	ACLE	Absence of SCLE and low complement and stricter hematologic criteria under ACR
	Arthritis	Synovitis	
	---	Leukopenia	
	Anticardiolipin	Anticardiolipin	
	---	Low Complement	
335	---	ACLE	Absence of SCLE and alopecia and stricter hematologic criteria under ACR
	---	Alopecia	
	Photosensitivity	---	
	Arthritis	Synovitis	
	---	Leukopenia	

Table V

Anti-SSA/Ro and ANA antibodies (n=69)

	Anti-SSA/Ro+	Anti-SSA/Ro-
ANA+	32 (78.0%)	10 (35.7%)
ANA-	9 (22.0%)	18 (64.3%)
Total	41	28

Table VI

Photosensitivity and anti-SSA/Ro antibodies (n=73)

	Anti-SSA/Ro+	Anti-SSA/Ro–
Photosensitive	36 (81.8%)	22 (75.9%)
Not photosensitive	8 (18.2%)	7 (24.1%)
Total	44	29