Classification

Classification criteria for SLE were established for conducting more uniform SLE research. The commonly used American College of Rheumatology classification criteria for SLE (Table 79-2) was updated in 1997. Using this system, meeting 4 of 11 criteria classifies a patient as having definite SLE.

In 2012, the Systemic Lupus International Collaborating Clinics (SLICC) further revised the classification criteria (Table 79-3) to improve clinical relevance and incorporate new knowledge into the definition of SLE immunopathogenesis. Based on the SLICC system, a patient is classified as having SLE if she has at least four of the criteria (including at least one clinical criterion and one immunologic criterion) listed in Table 79-3 or has biopsy-proven lupus nephritis (i.e., stand-alone criterion) in the setting of antinuclear antibodies (ANAs) or anti–double-stranded DNA (anti-dsDNA) antibodies. Although these classification criteria are not used for diagnostic purposes, practicing clinicians can use them along with a comprehensive examination to support the diagnosis.

Various autoantibodies are found in patients with SLE, and the prevalence of autoantibodies varies across different SLE patient cohorts and ethnic groups (Table 79-4). These autoantibodies often can be detected before the onset of SLE clinical manifestations. More than 95% of patients with SLE test positive for ANAs with titers of 1 : 160 or higher.

ANAs are evaluated by the indirect immunofluorescence antibody test, and results are reported in titers and patterns. The most common pattern in SLE is homogenous (i.e., diffuse). Antibodies to dsDNA and Smith antigen are highly specific for SLE, whereas antibodies to SSA/Ro and SSB/La antigens are also commonly found in patients with Sjögren's syndrome and rheumatoid arthritis. Certain antibodies are associated with specific clinical manifestations, particularly anti-dsDNA antibodies with lupus nephritis and anti–U1-RNP antibodies with overlapping features of systemic sclerosis or myositis. Autoantibodies alone are not diagnostic for any autoimmune disease and must be interpreted in the context of the patient's clinical presentation.

Overlap Syndrome

Some patients with clinical and laboratory features of two or more autoimmune diseases have an overlap syndrome. Mixed connective tissue disease is characterized by overlaps among SLE, scleroderma, and myositis with a high titer of anti–U1-RNP antibody levels. For patients who have multiple autoimmune manifestations but do not meet the criteria of a specific autoimmune disease, the term *undifferentiated connective tissue disease* is

TABLE 79-2 1997 AMERICAN COLLEGE OF RHEUMATOLOGY CRITERIA FOR CLASSIFICATION OF SYSTEMIC LUPUS ERYTHEMATOSUS*

CRITERIA	DEFINITIONS
1. Malar rash	Fixed, flat or raised erythema is observed over the malar eminences, tending to spare the nasolabial folds.
2. Discoid rash	Erythematous, raised patches develop with adherent keratotic scaling and follicular plugging; atrophic scarring may occur in older lesions.
3. Photosensitivity	Rash occurs as a result of unusual reaction to sunlight, determined by patient history or physician observation.
4. Oral ulcers	Oral or nasopharyngeal ulceration, usually painless, is observed by the physician.
5. Arthritis	Nonerosive arthritis involves two or more peripheral joints, characterized by tenderness, swelling, or effusion.
6. Serositis	a. Pleuritis: convincing history of pleuritic pain exists or rub is heard by a physician or pleural effusion is in evidence. *or* b. Pericarditis: documented by electrocardiogram or rub or evidence of pericardial effusion.
7. Renal disorder	a. Persistent proteinuria is >0.5 g/day or scored >3+ if quantitation is not performed. *or* b. Cellular casts: may be red cell, hemoglobin, granular, tubular, or mixed.
8. Neurologic disorder	a. Seizures: occurs in the absence of offending drugs or known metabolic derangements (e.g., uremia, ketoacidosis, or electrolyte imbalance). *or* b. Psychosis: occurs in the absence of offending drugs or known metabolic derangements (e.g., uremia, ketoacidosis, electrolyte imbalance)
9. Hematologic disorder	a. Hemolytic anemia: develops with reticulocytosis. *or* b. Leukopenia: <4000/mm^3 is documented on two or more occasions. *or* c. Lymphopenia: <1500/mm^3 is documented on two or more occasions. *or* d. Thrombocytopenia: <100,000/mm^3 develops in the absence of offending drugs.
10. Immunologic disorder	a. Anti–double-stranded DNA: antibody to native DNA in abnormal titer. *or* b. Anti-Smith: presence of antibody to Smith nuclear antigen. *or* c. Positive finding of antiphospholipid antibodies is based on (1) an abnormal serum level of IgG or IgM anticardiolipin antibodies, (2) a positive test result for lupus anticoagulant using a standard method, or (3) a false-positive serologic test for syphilis known to be positive for at least 6 months and confirmed by *Treponema pallidum* immobilization or fluorescent treponemal antibody absorption test.
11. ANA	An abnormal titer of antinuclear antibody is documented by immunofluorescence or an equivalent assay at any point in time and in the absence of drugs known to be associated with drug-induced lupus syndrome.

Data from Tan EM, Cohen AS, Fries, et al: The 1982 revised criteria of the classification of systemic lupus erythematosus, Arthritis Rheum 25:1271, 1982; Hochberg MC: Updating the American College of Rheumatology revised criteria for the classification of systemic lupus erythematosus, Arthritis Rheum 40:1725, 1997.

*This classification is based on 11 criteria. For the purpose of identifying patients in clinical studies, a patient is classified as having definite SLE if any 4 or more of the 11 criteria are present (cumulative) during any interval of observation.