Cutaneous Manifestations in Patients with Systemic Lupus Erythematosus: forms at the beginning of the disease and during follow-up

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Introduction:

Within the initial and evolutionary manifestations of Systemic Lupus Erythematosus (SLE), skin involvement (SI) is highly frequent (60-85%). It has been classified by J.N. Gilliam, according to the histological pattern, in non-specific and LE-specific skin lesions. This last group is subdivided into acute cutaneous LE (LECA), subacute (LECSA) and chronic (LECC). Various types of skin disease have in turn been associated with different degrees of systemic disease activity, clinical and serological variables.

Objectives

- Describe the SI in patients with SLE at onset and during follow-up.
- Determine factors associated with the presence of SI at diagnosis.

Materials and methods:

Retrospective, analytical, single-center study in patients diagnosed with SLE (ACR 1982-1997 or SLICC 2012 criteria) in the service during the years 2000-2020, older than 18 years. The modified Gilliam classification was used to describe skin involvement. Descriptive statistics and bivariate and multivariate analysis were performed to evaluate the factors associated with skin involvement at diagnosis.

Results

- 149 patients were included (table 1).
- Cutaneous involvement at the onset of the disease was observed in 125 patients (83.9%) (table 2), followed by arthralgias (69.1%), arthritis (52.3%) and constitutional dominance (45.6%)
- In the bivariate analysis, the longer delay to diagnosis, the presence of joint involvement, thrombocytopenia, and a higher SLEDAI score were associated with the presence of SI at debut.
- In the multivariate analysis, the variable that remained independently associated was joint involvement (OR 2.8-IC 95% 1.1-7.5, p: 0.04).
- No significant differences were found in the use of systemic treatments between patients with and without skin involvement (p> 0.05), the most commonly used being hydroxychloroquine (HCQ) (89.7%) and oral corticosteroids (83.4%).

Table 1: general characteristics

SLE patients n=149	
Women	91,3%
Median age at diagnosis	33 (C 25-75: 22-45,5) años
Median follow-up	45 (14-72) meses
Hypothyroidism	17,4%
Smoking	9,4%
Midsize SLEDAI at debut	9 (6-14)
ANA positive	100%
Anti-Ro	37,3%
Anti-Sm	41,5%
Anti-RNP	36,2%

Table 2

Types of skin compromise at debut (n: 125)	
LE specific skin lesions	83 (66.4%)
- LECA	79 (63.2%)
○Malar rash	73 (58.4%)
○Generalized erythema	13 (10.4%)
- LECSA	2 (1.6%)
- LECC	6 (4.8%)
LE non-specific skin lesions	113 (90.4%)
- V. leukocytoclastic	5 (4%)
- Vasculopathy	7 (5.6%)
- Livedo reticularis	18 (14.4%)
- Raynaud's phenomenon	47 (37.6%)
- Mucous ulcers	46 (36.8%)
- Alopecia	76 (60.8%)

- During follow-up, 4/24 patients who had not presented SI at diagnosis and 51/125 patients who did present, had at least one new skin episode (range: 1-5 outbreaks).
- First outbreak: the median time since diagnosis was 22 months (12-44). The types of skin manifestations were: 54.5% LECA (malar rash 28/55 and generalized erythema 3/55) and 74.5% non-specific lesions (alopecia (38.2%), oral ulcers (30.9%) and Raynaud's (20%)).
- Second outbreak: observed in 17 patients; being the most found manifestations: malar rash (11), Raynaud (7), alopecia (4) and livedo reticularis (3).
- The presence of a third, fourth, and fifth skin flare was observed in 7, 4, and 2 patients, respectively.

Conclusion

The skin domain was the most commonly affected at the onset of the disease in our population, above joint involvement. The only variable associated with SI at debut was joint involvement. Despite the fact that most of the patients were under treatment with HCQ and generally another associated drug, about a third presented new skin episodes, which highlights the need to analyze new treatments for this manifestation.