SLE is an autoimmune connective tissue disease affecting multiple organs, influenced by genetic and environmental factors. SLE is a spectrum of disorder that ranges from mild localized skin disease to a life-threatening disease. Cutaneous manifestations are usually common among SLE patients. Cutaneous manifestations are divided into specific and non-specific.

Specific cutaneous manifestations are subdivided into acute, subacute, and chronic. Acute cutaneous lupus is a photosensitive rash that presents on the malar area and described as the butterfly rash. The photosensitivity can be mild in the skin of colored patients. The butterfly rash usually spare the nasolabial folds and ranges from mild erythema and itching to severe facial edema. Sometimes it can be difficult to differentiate between a butterfly rash, a heliotrope rash of dermatomyositis, and seborrheic dermatitis. However, sparing of the nasolabial folds and the presence of other cutaneous lupus signs could lead to the diagnosis1-4.

Subacute cutaneous lupus is another specific subtype of cutaneous lupus characterized by photosensitivity and the presence of anti-Ro autoantibodies. It usually presents with scaly erythematous annular plaques on the trunk and face. Ten to 15% of patients with subacute cutaneous lupus will develop systemic disease1,2.

Chronic cutaneous lupus is a specific subtype of cutaneous lupus that is further subdivided into discoid, panniculitis, perniosis and tumidus lupus. Discoid lupus is the most common...
type of chronic lupus, presents with disc-like erythematous scaly plaques, and follicular plugging. It usually occurs on the scalp and face, and it is associated with central scarring and peripheral hyperpigmentation.

Other non-specific cutaneous manifestations of SLE include aphthous ulcers, a diffuse non-scarring alopecia, urticaria, vasculitis, thrombophlebitis, livedo reticularis, purpura, interphalangeal erythema and Raynaud’s.

The aim of this study is to evaluate the cutaneous manifestations of hospitalized patients with SLE.

**METHOD**

Patients with SLE admitted to the hospital from January 2012 to May 2017 were reviewed. Patients aged ≥12 years who fulfilled the 1997 SLE diagnostic criteria were included in the study. Two hundred seven SLE patients were admitted; 31 patients had concomitant cutaneous manifestations. The following data were documented: personal characteristics, diagnosis, and duration, comorbidities, cutaneous features, hospitalizations including indication, length and outcome of each admission.

SPSS version 21 software was used to analyze the data. We performed the two-tailed test for all our statistical analyses where we considered an alpha error of ≤0.05 value statistically significant. For descriptive measures, we used a simple frequency and percentage. We used the mean with standard deviation to describe scale data.

**RESULT**

Thirty-one SLE patients were hospitalized with different cutaneous manifestations; age ranged from 14 to 70 years with a mean age of 29.6 ± 9.8 years. Thirty (96.8%) patients were females and 17 (54.8%) patients were married. The duration of SLE disease ranged from one year to 12 years with a mean duration of 4.5 ± 3.6, see table 1.

Eleven (35.5%) patients had RA, 8 (25.8%) had a renal disorder, 6 (19.4%) had anemia, 5 (16.1%) had a thyroid disorder, and one (3.2%) was diabetic, see figure 1.

Twelve (38.7%) patients stayed in the hospital for less than 7 days while 7 (22.6%) stayed for more than two weeks. Fifteen (48%) had musculoskeletal disorders, 13 (42%) had hematological disorders, 11 (35%) had lupus nephritis, and one (3%) had infections, see figure 2.

Twenty-one (68%) patients had mouth ulcers, 10 (32%) had alopecia, 10 (32%) had malar rashes, 8 (26%) had cutaneous ulcerations, and 7 (23%) had photosensitivity. One (3%) patient had purpura, one patient (3%) had livedo reticularis, and one (3%) patient had inter-phalangeal erythema, see figure 3. Fourteen (45.2%) patients had acute cutaneous manifestations. Seventeen (54.9%) patients had three or more cutaneous manifestations while 6 (19.4%) had only one cutaneous manifestation. Cutaneous manifestations were the primary cause of admission among four (12.9%) cases, while 27 (87.1%) cases presented with cutaneous features associated with another primary cause of admission, see figure 4.
Fourteen (45.2%) patients had acute manifestations. Six (19.4%) patients aged 30 years or more had 4 to 6 cutaneous manifestations compared to only one (3.2%) patient below the age of 30 years. Two (6.5%) patients had the disease for more than five years and had 4 to 6 different cutaneous presentations compared to 4 (23.5%) of those who had SLE for less than 5 years, see table 2.

DISCUSSION

SLE patients have specific and non-specific cutaneous features. Although musculoskeletal flare was the most common cause of admission of our SLE patients, mucocutaneous flare was another common cause of admission in 15% of patients. In our study, out of the 207 hospitalized-SLE patients, only 31 patients had concomitant cutaneous manifestations, which is slightly lower than previously reported by another study. Jallouli et al found that the most common reason for hospitalization was active SLE; mucocutaneous flare was the second most common reason for active disease that led to admission.

Another study found the most common reason for hospitalization was disease flare (17.5%), mucocutaneous flare was seen in only in 8%. In our study, we found that cutaneous manifestations were the primary cause of admission among 12.9% of cases, while 77.4% of cases presented with cutaneous features with another primary cause of hospitalization. If musculoskeletal or hematological flares were the primary reason for admission, concomitant mucocutaneous flare was an important reason to warrant admission.

Zečević et al found that the type of cutaneous lesions in SLE together with the number of their different types is a useful and reliable predictor of disease activity and prognosis. We found that 54.9% of our patients had three or more cutaneous manifestations while 19.4% had only one cutaneous manifestation. Most of our patients had non-specific cutaneous presentations, where 45.2% were reported as acute cutaneous features and the remaining as chronic.

Specific and non-specific cutaneous manifestations of SLE were well documented. The previous studies did not identify the types of skin lesions and how common each is in their hospitalized patients. Of our admitted SLE patients with cutaneous flare, 68% presented with mouth ulcers, 32% with alopecia, and 32% with butterfly rash, and 23% with photosensitivity. Longitudinal multicentric study is needed to classify skin manifestations and mucocutaneous flare among hospitalized SLE patients.

Limiting factors for our study included retrospective chart review and lack of documentation of cutaneous manifestations and failure to consult dermatologist.

CONCLUSION

The skin is commonly involved in SLE and should be always evaluated and controlled to minimize hospitalizations and improve the prognosis. Dermatologists and rheumatologists should be aware of the frequency of cutaneous manifestations as a cause of admission.

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