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Dr. Grigori Furlong

Department of Dermatology,
Elizaveta Buydenok, MD
Cosmetic Dermatology, Russia

Assessment of cases of systemic Lupus erythematosus- A clinical study

Dr. Grigori Furlong

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Abstract

Background: Systemic Lupus erythematosus (SLE) is seen worldwide. The present study was conducted to determine cases of systemic Lupus erythematosus.

Materials & Methods: The present study was conducted on 64 cases of systemic Lupus erythematosus reported to the department. Patients were classified depending on the presence or absence of ARA criteria of SLE. Skin lesions in different age groups were recorded.

Results: Out of 64 patients, males were 30 and females were 34. Age group 21-30 had 5 patients, 31-40 had 12, 41-50 had 24, 51-60 had 20 and >60 years had 4 patients. The difference was significant ($P < 0.05$). Photosensitivity was seen in 28, non scarring alopecia in 14, scarring alopecia in 23, oral ulcers in 17, urticaria in 12, malar rash in 52, Raynaud's phenomenon in 34, vasculitis in 22 and discoid lesions in 16.

Conclusion: Maximum cases were seen in age group 41-50 years and malar rashes were commonly seen among patients.

Keywords: Malar rashes, Raynaud's phenomenon, Systemic Lupus erythematosus

Introduction

Systemic Lupus erythematosus (SLE) is seen worldwide, with incidence and prevalence rates differing geographically^[1]. Studies have shown that the incidence rate of SLE around the world is about 1 to 10 per 100,000 person-years, while the prevalence rates range from 20–70 per 100,000 person-years^[2]. In the United States (US), the all race incidence was found to be 5.1 per 100,000 person-years and the prevalence was estimated to be over 300,000 persons. SLE predominantly affects women, with a reported peak female-to-male ratio of 12:1 during the childbearing years^[3]. The disease can also be seen in children and the elderly with a narrower gender distribution. Studies have shown racial/ethnic variations, with SLE being more common in non-Caucasian persons, occurring three to four times more often in African-Americans^[4].

The etiology of SLE is unknown. Certain risk factors have been identified and shown to contribute to disease susceptibility or activate the immune system causing an inflammatory response, ultimately leading to the development of the disease. Predisposition to SLE is influenced by genetic factors. The female predominance in SLE, may be explained, in part, by the contribution of certain hormones^[5].

It is the dermatologists who primarily manage the cutaneous LE (CLE); on the other hand systemic LE (SLE) remains the domain of rheumatologists or internists. It is important to realize that a person with CLE will die not of the cutaneous lesion but of the systemic involvement. There comes the importance of bridging the gap between dermatologists and internists, which the present study will try to achieve^[6]. The present study was conducted to determine cases of systemic Lupus erythematosus.

Materials & Methods

The present study was conducted in the department of Dermatology. It comprised of 64 cases of systemic Lupus erythematosus reported to the department. The study was approved from the institutional ethical committee. All were informed regarding the study and written consent was obtained.

Data such as name, age, gender etc. was record. Patients were classified depending on the

Correspondence

Dr. Grigori Furlong

Department of Dermatology,
Elizaveta Buydenok, MD
Cosmetic Dermatology, Russia

presence or absence of ARA criteria of SLE. Skin lesions in different age groups were recorded. Results were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table I: Distribution of patients

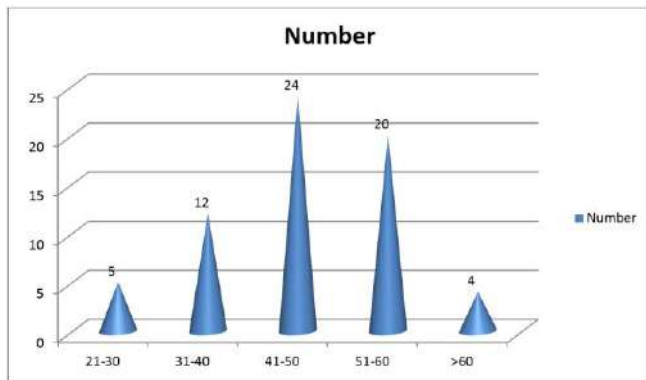
Gender	Males	Females
Number	30	34

Table I shows that out of 64 patients, males were 30 and females were 34.

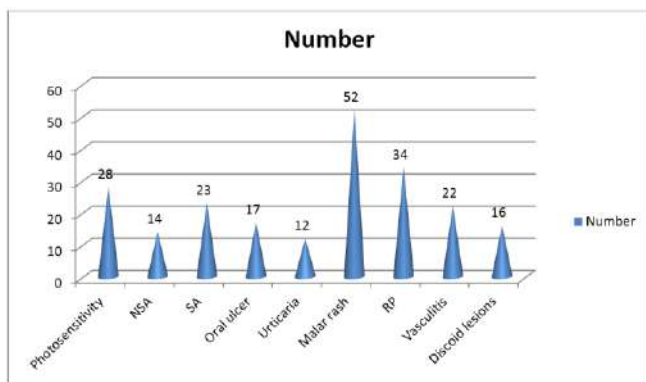
Table II: Age wise distribution of cases

Age group (Years)	Number	P value
21-30	5	
31-40	12	
41-50	24	
51-60	20	
>60	4	

Table II, graph I shows that age group 21-30 had 5 patients, 31-40 had 12, 41-50 had 24, 51-60 had 20 and >60 years had 4 patients. The difference was significant ($P < 0.05$).



Graph I: Age wise distribution of cases



Graph II: Skin lesions

Graph II shows that photosensitivity was seen in 28, non scarring alopecia in 14, scarring alopecia in 23, oral ulcers in 17, urticaria in 12, malar rash in 52, Raynaud’s phenomenon in 34, vasculitis in 22 and discoid lesions in 16.

Discussion

Lupus erythematosus (LE) is not just a cosmetic deformity;

causing psychological upset due to the disfigurement arising thereof, but at times can be catastrophic and can damage various vital organ systems leading to perpetuating organ dysfunction and/or failure and subsequent death. SLE tends to be more active and severe, with a higher risk of relapses and organ system involvement or damage [7]. Even with advances in diagnosis and treatment of the disease, the mortality risk in patients with SLE is higher than that of the general population. For newly diagnosed patients, the 5-year survival rate is over 90% and the 15 to 20 year survival rate is about 80%. Worse outcomes and higher mortality risk correlated with this ethnic disparity, which may be influenced by a lower socioeconomic status as well [8].

Environmental factors, such as smoking, exposure to ultraviolet light, viral infections, and specific medications (e.g. sulfonamide antibiotics) are known to trigger SLE. The pathogenesis of SLE is complex with contribution from many components of the immune system. With the underlying genetic predisposition and in response to various triggers, the balance of the immune system shifts towards reacting against itself, rather than self-tolerance. T and B cells become activated, leading to antibody production and eventual immune complex formation. These complexes circulate and deposit in critical tissues causing organ injury [9]. The present study was conducted to determine cases of systemic Lupus erythematosus.

In this study, out of 64 patients, males were 30 and females were 34. Age group 21-30 had 5 patients, 31-40 had 12, 41-50 had 24, 51-60 had 20 and >60 years had 4 patients.

Das *et al.* [10] found that among the different cutaneous manifestations, highly significant was found between SLE and non-scarring alopecia, photosensitivity, oral ulcer, malar rash (in decreasing order of odds favoring the association with SLE). Dimorphic skin lesions also showed significant association where as discoid lesion (especially localized variant) predicted toward a skin limited form of the disease with high probability of not developing SLE. No significant association was found between SLE and papulosquamous lesions, Raynaud’s phenomenon or scarring alopecia.

We found that photosensitivity was seen in 28, non scarring alopecia in 14, scarring alopecia in 23, oral ulcers in 17, urticaria in 12, malar rash in 52, Raynaud’s phenomenon in 34, vasculitis in 22 and discoid lesions in 16. According to Parodi *et al.* [11], a disease may be measured through its activity or its severity. Severity denotes the gravity of manifestation whereas the activity implies a continuous phenomenon. A manifestation may therefore be used to measure activity even though it is not severe, while severe lesions and their extent may represent permanent damage and may not be used to decide the prognosis.

SLE has a variable, relapsing-remitting course and clinical symptoms vary between patients, depending on which organ systems are affected. The above criteria incorporate the major and common organ systems that can be affected in SLE including skin, mucus membranes, joints, kidneys, brain, lungs, heart and hematologic system. Clinical and laboratory surveillance is also important to assess and monitor for the development of any new symptoms or findings. A serious manifestation of SLE, with resultant increased morbidity and mortality, is lupus nephritis (LN). Treatment is based on the findings on a kidney biopsy. Neuropsychiatric involvement is rare but difficult to diagnose. It may not correspond to overall SLE activity [12]. SLE patients may also have comorbidities, further complicating their

disease.

Conclusion

Authors found that maximum cases were seen in age group 41-50 years and malar rashes were commonly seen among patients.

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