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Original Article

Sociodemographic Profile, Disease Severity, and Treatment Patterns in Patients with Cutaneous Lupus Erythematosus Attending a Tertiary Care Hospital

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ABSTRACT

Background: Cutaneous lupus erythematosus (CLE) is a chronic autoimmune skin disease that occurs alone or with systemic lupus erythematosus (SLE). Data on its sociodemographic profile, disease severity and treatment patterns are limited in Bangladesh. **Objective:** To describe the sociodemographic profile of patients with CLE attending a tertiary hospital, assess disease severity using the Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI) and describe their treatment patterns. **Methods & Materials:** This descriptive cross-sectional hospital-based study was conducted at Chittagong Medical College Hospital, Chattogram from January to December 2023. Consecutive adults with CLE, with or without SLE, were enrolled after informed consent. Sociodemographic and clinical data were collected by interview and record review and disease activity was measured with the CLASI activity score. Current and previous drug treatment was recorded. Data were summarized descriptively; no comparative hypothesis testing was performed. **Results:** Of 100 patients assessed, 96 were analysed (mean age 32.5 ± 11.6 years; 91.7% female; female to male ratio 11:1). Most patients were from rural areas (69.8%), married (82.3%) and housewives (68.8%); 43.8% belonged to the upper lower socioeconomic class. Generalized cutaneous disease was present in 80.2% and systemic manifestations in 86.5%. The mean CLASI activity score was 13.8 ± 10.3; disease activity was mild in 44.8%, moderate in 33.3% and severe in 21.9%. Mean body mass index was 22.7 kg/m², with 17.7% obese and 25.0% underweight. Before enrolment, 76.0% had received combined systemic and topical treatment. At assessment, hydroxychloroquine was used by 78.1% and prednisolone by 44.8%, usually in combination, while 8.3% were on no systemic immunosuppressant. **Conclusion:** Patients with CLE at this tertiary centre were predominantly young women of rural, lower socioeconomic background with generalized skin disease and frequent systemic involvement. Disease activity was mild to moderate in most patients and hydroxychloroquine with or without corticosteroids was the dominant treatment approach. These descriptive data can guide service planning and patient counselling in similar settings.

Keywords: *cutaneous lupus erythematosus; sociodemographic factors; CLASI; disease severity; hydroxychloroquine; treatment pattern; Bangladesh*

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INTRODUCTION

Cutaneous lupus erythematosus (CLE) is a chronic, relapsing autoimmune skin disease, classified into acute, subacute and chronic subtypes on the basis of morphology, histology and serology [1]. It may occur as skin-limited disease or alongside systemic lupus erythematosus (SLE), and progression from CLE to SLE has been reported in 0% to 42% of adult patients, with wide variation explained by population, diagnostic criteria and follow-up time [2]. CLE affects women far more often than men; reported female to male ratios across clinical series range as high as 9:1 and genetic and hormonal factors have both been proposed as explanations [3].

Disease severity in CLE is commonly measured with the Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI), an instrument developed to quantify activity and damage and to track response to treatment [4]. Activity scores can be organized into mild, moderate and severe categories and this can facilitate communication of disease burden and comparison of populations by the clinician [5]. CLE is treated with topical therapies, mainly corticosteroids and calcineurin inhibitors and systemic therapy with antimalarials, hydroxychloroquine being the recommended first-line systemic therapy, and immunomodulators/ immunosuppressive for resistant disease [6]. Corticosteroids remain widely used, but their cumulative dose and duration are linked to complications such as osteoporosis, diabetes, avascular necrosis and hypertension, as well as an increased risk of infection [7].

Sociodemographic profile, disease severity and treatment choice vary across populations and health systems. Comparative data from India and Bangladesh suggest broadly similar age of onset and female predominance in CLE [8-10] but direct description of the sociodemographic and treatment landscape of CLE from a Bangladeshi tertiary hospital is limited. Characterizing these features is useful for anticipating the resource needs of CLE services, including dermatology, rheumatology and mental health support, and for setting expectations with patients at diagnosis.

A tertiary government hospital such as CMCH receives patients referred from a wide catchment area including rural districts and therefore offers a useful window on the kind of patient who ultimately reaches specialist dermatological and rheumatological care in this setting, even though it cannot represent the full community burden of CLE. It is important for the clinician to document who these patients are, how severe their skin disease is at presentation and what treatments they are already receiving so that they can anticipate case mix, plan follow up services and counsel patients realistically about the chronic and sometimes systemic course of the disease. This study aimed to describe the sociodemographic profile of patients with CLE attending a tertiary care hospital in Chattogram, Bangladesh to assess their disease severity using the CLASI and to

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describe the treatment patterns used in their management.

METHODS & MATERIALS

Design, setting and participants

This descriptive cross-sectional, hospital-based study was conducted at Chittagong Medical College Hospital (CMCH), Chattogram from January to December 2023. Patients were recruited consecutively from the dermatology, medicine, nephrology and rheumatology services. Eligible patients were aged 18 years or older with a diagnosis of CLE, either primary or with SLE (or four or more American College of Rheumatology criteria for SLE), validated by record review, physician assessment and skin photographs, with biopsy where clinically indicated. Patients who did not consent or had difficulty communicating were excluded. Of 100 patients assessed, 4 declined and 96 were analysed; 11 had primary CLE and the remainder had systemic manifestations.

Sample size

The sample size was calculated for a single proportion ($n = Z^2pq/d^2$), using a prior estimate of 80% for the primary outcome of interest in the parent study, 95% confidence and 10% relative precision, giving a minimum of 96 patients. This calculation targeted prevalence estimation and was not designed to power group comparisons; accordingly, this manuscript presents descriptive results only.

Data collection and variables

Data were recorded on a pretested structured case record form through face-to-face interview and medical record review, together with clinical and dermatological examination. Sociodemographic variables were age, sex, education, place of residence, marital status, occupation and socioeconomic class, classified with the modified Kuppuswamy scale [11]. Disease variables were age at onset, disease duration, CLE subtype (localized, confined above the neck or generalized, extending below the neck), presence of systemic manifestations, family history of CLE or SLE and presenting clinical features. Height, weight and waist circumference were measured and body mass index (BMI) was categorized as underweight, normal, overweight or obese using standard cut-offs.

Disease activity was measured with the CLASI activity score [4], categorized as mild (0 to 9), moderate (10 to 20) or severe (21 to 70) [5]. Treatment history was recorded in two parts: previous treatment before the current assessment, categorized as topical only, systemic only, or combined systemic and topical; and current systemic immunosuppressant use, recorded as hydroxychloroquine, prednisolone, methotrexate, azathioprine, mycophenolate mofetil, intravenous cyclophosphamide, or none, with patients able to be recorded on more than one drug.

Statistical analysis

Data were entered and analysed in SPSS. Continuous variables were summarized as mean ± standard deviation (SD) or range, and categorical variables as frequencies and percentages. This manuscript reports descriptive statistics only; no between-group hypothesis testing, regression or adjusted modelling was performed.

Ethics

The Ethical Review Committee of Chittagong Medical College approved the study and CMCH administration granted permission. Participants were provided with an information letter and provided written informed consent, and they were identified by a code only. Interviews and exam were held in private. No new drugs were tested in the study and there was no control arm for a placebo.

RESULTS

Sociodemographic profile

The mean age was 32.5 ± 11.6 years (range 17.0 to 76.0), with the largest group aged 20 to 29 years (40 patients, 41.7%) (Figure 1A). Women accounted for 88 patients (91.7%), a female to male ratio of about 11:1 (Figure 1B). Most participants lived in rural areas (67, 69.8%), were married (79, 82.3%) and worked as housewives (66, 68.8%). About half (49, 51.0%) had education above primary up to secondary level and 10.4% had no formal education. By socioeconomic class, 43.8% were upper lower, 27.1% lower, and the remaining 29.2% upper or lower middle (**Table I**).

Clinical characteristics and disease severity

Mean age at disease onset was 28.7 ± 11.1 years (range 14.0 to 65.0) and disease duration ranged from 20 days to 30 years, with 68.8% under 5 years. Generalized cutaneous disease was present in 77 patients (80.2%) and systemic manifestations in 83 (86.5%); a family history of CLE or SLE was reported by 4.2% (**Table II**). The most frequent presenting features were photosensitivity (81.3%), joint pain (79.2%), pruritus (79.2%), oral ulcer (74.0%), fever (72.9%) and malar rash (72.9%), followed by scaling (61.5%), erythema (60.4%), discoid rash (34.4%), oedema (34.4%), telangiectasia (25.0%) and bulla formation (16.7%) (**Table III**). Scalp involvement was recorded in 76.0%, mucous membrane involvement in 74.0%, and hair involvement in 69.8%. These three features, together with the high rates of photosensitivity and oral ulceration, indicate that disease in this cohort commonly extended beyond isolated facial or trunk lesions to sites with particular significance for cosmesis and quality of life, such as the scalp and hair.

Mean BMI was 22.7 kg/m² (range 12.0 to 35.4); 33.3% had a normal BMI, 25.0% were underweight, 24.0% overweight and 17.7% obese (Figure 2A). The mean CLASI activity score was 13.8 ± 10.3 (range 0 to 42) out of a maximum possible score of 70. Disease activity was mild in 43 patients (44.8%), moderate in 32 (33.3%) and severe in 21 (21.9%) (Figure 2B, **Table IV**).

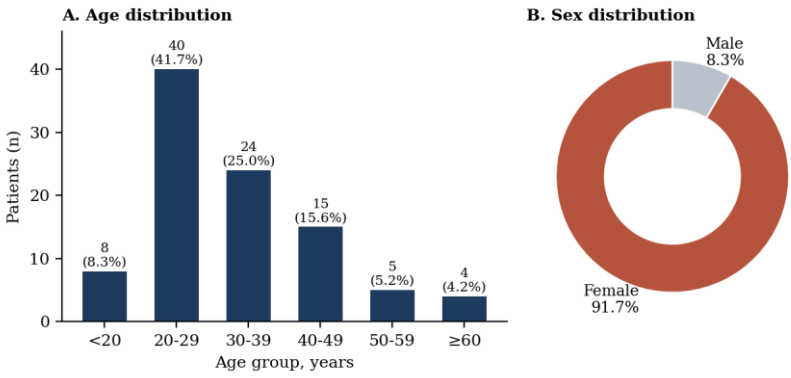


Figure 1 (A) Age distribution and (B) sex distribution of patients with cutaneous lupus erythematosus attending a tertiary care hospital (*n*=96).

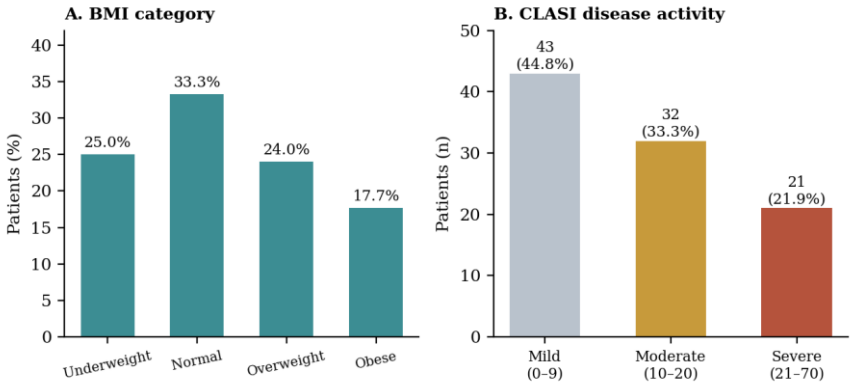


Figure 2 (A) Body mass index (BMI) category and (B) CLASI disease activity category among patients with cutaneous lupus erythematosus (*n*=96).

Laboratory and systemic assessment relevant to treatment choice

Because treatment selection in CLE is informed by the presence of systemic disease, it is relevant that 86.5% of patients in this cohort had systemic manifestations and that antinuclear antibodies were positive in 75.0% and anti-double-stranded DNA antibodies in 46.9% of the same study population, as reported in detail in the companion manuscript on comorbidity in this cohort. These clinical and laboratory findings form part of the picture that guided the systemic treatment choices described below, alongside skin disease severity itself.

Treatment patterns

Before the current assessment, 73 patients (76.0%) had received combined systemic and topical treatment, 9 (9.4%) systemic treatment alone and 7 (7.3%) topical treatment alone (**Table II**). At the time of assessment, hydroxychloroquine was the most frequently used systemic drug (75 patients, 78.1%) followed by prednisolone (43, 44.8%); these two drugs were commonly used together. Less frequently used drugs were methotrexate (6, 6.3%), azathioprine (6, 6.3%), mycophenolate mofetil (5, 5.2%) and intravenous cyclophosphamide (3, 3.1%). Eight patients (8.3%) were not taking any systemic immunosuppressant at assessment (**Table V**, **Figure 3**).

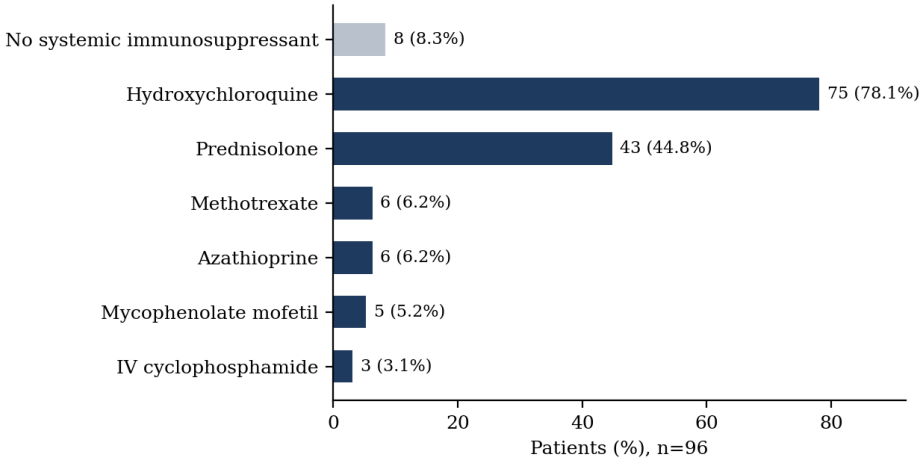


Figure 3 Current systemic treatment pattern among patients with cutaneous lupus erythematosus at assessment (*n*=96); patients could be recorded on more than one drug.

Table I
Sociodemographic characteristics of patients with cutaneous lupus erythematosus attending a tertiary care hospital (*n*=96).

Characteristic	n (%) or mean ± SD
Age, years, mean ± SD (range)	32.5 ± 11.6 (17.0 to 76.0)
Age <20 years	8 (8.3)
Age 20 to 29 years	40 (41.7)
Age 30 to 39 years	24 (25.0)
Age 40 to 49 years	15 (15.6)
Age 50 to 59 years	5 (5.2)
Age 60 years or more	4 (4.2)
Sex: female / male	88 (91.7) / 8 (8.3)
Education	
No formal education	10 (10.4)
Primary or below	26 (27.1)
Above primary to secondary	49 (51.0)
Higher secondary or above	11 (11.5)
Place of residence: rural / urban	67 (69.8) / 29 (30.2)
Marital status: married / unmarried	79 (82.3) / 17 (17.7)
Occupation	
Housewife	66 (68.8)
Service	14 (14.6)
Others	16 (16.7)
Socioeconomic class (modified Kuppuswamy scale)	
Upper middle and lower middle	28 (29.2)
Upper lower	42 (43.8)
Lower	26 (27.1)

SD, standard deviation. Percentages were calculated from the reported counts with a denominator of 96.

Table II
Clinical and treatment-history characteristics of patients with cutaneous lupus erythematosus (*n*=96).

Characteristic	n (%) or mean ± SD
Age at onset, years, mean ± SD (range)	28.7 ± 11.1 (14.0 to 65.0)
Duration of disease	
<5 years	66 (68.8)
5 to 9 years	17 (17.7)
10 years or more	13 (13.5)
Type of CLE	
Localized	19 (19.8)
Generalized	77 (80.2)
Systemic manifestation	
Present	83 (86.5)
Absent	13 (13.5)
Family history of CLE or SLE	4 (4.2)
Previous treatment history	
Systemic only	9 (9.4)
Topical only	7 (7.3)
Combined systemic and topical	73 (76.0)
Scalp involvement	73 (76.0)
Mucous membrane involvement	71 (74.0)
Hair involvement	67 (69.8)

CLE, cutaneous lupus erythematosus; SD, standard deviation; SLE, systemic lupus erythematosus. Percentages use a denominator of 96.

Table III
Presenting clinical features of patients with cutaneous lupus erythematosus (*n*=96).

Feature	n	%
Photosensitivity	78	81.3
Joint pain	76	79.2
Pruritus	76	79.2
Oral ulcer	71	74.0
Fever	70	72.9
Malar rash	70	72.9
Scaling	59	61.5
Erythema	58	60.4
Discoid rash	33	34.4
Oedema	33	34.4
Telangiectasia	24	25.0
Bulla formation	16	16.7

A patient could present with more than one feature; percentages use a denominator of 96.

Table IV
Body mass index and CLASI disease activity among patients with cutaneous lupus erythematosus (*n*=96).

Measure	n (%) or mean ± SD
Body mass index, kg/m²	
Mean ± SD and range	22.7 (12.0 to 35.4)
Underweight	24 (25.0)
Normal weight	32 (33.3)
Overweight	23 (24.0)
Obese	17 (17.7)
CLASI activity score	
Mean ± SD and range	13.8 ± 10.3 (0 to 42)
Mild (0 to 9)	43 (44.8)
Moderate (10 to 20)	32 (33.3)
Severe (21 to 70)	21 (21.9)

CLASI, Cutaneous Lupus Erythematosus Disease Area and Severity Index; SD, standard deviation. BMI category counts were derived from the reported percentages and a denominator of 96 and may be subject to rounding.

Table V
Current systemic treatment of patients with cutaneous lupus erythematosus at assessment (*n*=96).

Drug	n	%
Hydroxychloroquine	75	78.1
Prednisolone	43	44.8
Methotrexate	6	6.3
Azathioprine	6	6.3
Mycophenolate mofetil	5	5.2
Intravenous cyclophosphamide	3	3.1
No systemic immunosuppressant	8	8.3

Patients could be recorded on more than one drug (hydroxychloroquine and prednisolone were commonly used together), so percentages do not sum to 100.

DISCUSSION

In this hospital-based cohort of 96 patients with CLE, the sociodemographic profile was dominated by young women from rural, lower socioeconomic backgrounds. Disease was generalized in most patients and accompanied by systemic manifestations in the great majority. Disease activity, as assessed by CLASI, was mild to moderate in most patients and was treated mostly with hydroxychloroquine, sometimes in combination with prednisolone. Patients were recruited from one tertiary government hospital making the results from this hospital representative of the case mix observed at this centre and not the general community population of patients with CLE.

Sociodemographic profile

The mean age (32.5 years) was similar to a previous Bangladeshi series from the same hospital where the mean age was 30.0 years with onset ranging from 11 to 65 years [8]. CLE may happen at any age but is most frequently diagnosed from 20 to 40 years of age [12]. This high ratio for females (91.7%, near 11:1) is similar to the ratio reported in Bangladeshi and Indian reports which ranged from 82.5% to 93.1% female [8-10,13] and as high as 9:1 in the broader literature [3]. Theories proposed are that there is a genetic predisposition for X-linked susceptibility and that sex hormones play a role in this process, but neither of these were studied in this research.

The majority of patients were from rural areas, married and their socioeconomic class was low, with over 25% of patients having no higher than primary education. These characteristics are specific to those who seek and reach specialist care and do not apply to the overall burden of CLE in the community and cannot be extrapolated to those who are managed outside the specialist setting. Overall, the profile was similar to previous studies of the same hospital [8,13] indicating a consistent overall referral population over time.

Disease severity

Generalized disease (80.2%) and systemic manifestations (86.5%) were common, and the risk of progression from CLE to SLE, reported at up to 42% in adult cohorts, underlines the importance of monitoring patients with CLE for systemic disease at routine intervals [2]. Using the CLASI activity categories, 44.8% of our patients had mild disease, 33.3% moderate and 21.9% severe, a distribution close to that reported by Mowla et al., who found 42%, 39% and 19% in the same three categories [8]. The mean CLASI activity score (13.8) also fell within the range reported in other published series, from 3.4 to 49 [9,10,13], though direct comparison is limited by differences in disease mix, scoring observers and the proportion of patients with systemic disease. Nearly one in five patients was obese and one in four underweight, a bimodal pattern that may reflect both corticosteroid-related weight gain and disease-related weight loss, though this study could not distinguish between these explanations.

Treatment patterns

Treatment patterns in this cohort reflect both the predominance of generalized, systemic-associated disease and the resource constraints of a government tertiary hospital, where access to newer steroid-sparing or biologic agents is limited. Most patients (78.1%) used Hydroxychloroquine the standard first line systemic therapy for CLE [6] and 44.8% used prednisolone, typically together. This is a similar pattern to what is seen in an Indian series, where 42.6% of patients were on hydroxychloroquine, and 54.6% had received previous corticosteroid therapy, but previous drug therapy including methotrexate, azathioprine and mycophenolate mofetil was similarly low in both settings [9]. Corticosteroids are a mainstay of treatment for cutaneous and systemic lupus, but long-term use and high doses of these medications can lead to osteoporosis, diabetes, avascular necrosis, infection, and hypertension [7]. Bone densitometry was performed on few patients in our cohort despite prolonged corticosteroid use, and this may be underdiagnosed, as has been seen in other cohorts of patients with lupus, including the South African cohort, where infection and corticosteroid-related complications can be important causes of morbidity [14]. International guidelines at the moment suggest minimising the use of GCs when disease control is achieved, and continuing hydroxychloroquine as background treatment [15]. The small number of patients not receiving systemic immunosuppressants (8.3%) may be due to the fact that they have well-controlled or newly diagnosed disease, but were not analysed here for treatment indications.

Interpreting the CLASI findings

The mild-to-moderate pattern seen here reflects erythema, scale and hypertrophy at the time of assessment and are subject to the influence of recent flares, as well as current treatment and should therefore not be interpreted as a stable description of lifetime disease course. Patients with severe activity (21.9%) are a clinically significant minority and may benefit from more intense monitoring, dose escalation or the use of a steroid-sparing agent. The duration of the disease experience was less than five years for the majority of patients, so some may not have reached a treatment plateau and repeated CLASI assessment over time would be required in order to characterize treatment trajectories of improvement or deterioration.

Clinical implications

The results of the present study corroborate the need to counsel patients with CLE especially young rural women of a lower socio-economic status, at the point of diagnosis regarding the chronic and potentially systemic nature of the disease. Considering the majority of generalized disease and systemic manifestations, structured follow-up to help screen for systemic involvement as well as skin disease activity seems appropriate. The use of hydroxychloroquine and prednisolone, and low use of steroid sparing agents, implies that access to or knowledge of second-line systemic treatments may be a fruitful quality-improvement intervention. At this centre, routine monitoring of bone health in patients taking long-term steroids, as recommended elsewhere [7] is likely to be beneficial.

Strengths and Limitations

Strengths of this study include consecutive recruitment with a low refusal rate (4 of 100), structured clinical and dermatological assessment, and use of a validated severity instrument (CLASI). It adds sociodemographic, severity and treatment data on CLE from a setting where such information has been scarce.

Limitations should be considered. Recruitment was hospital-based at a single tertiary government centre, which limits generalizability to community-based or privately managed patients with CLE. The design was cross-sectional and descriptive, so no causal or temporal statements can be made about disease severity or the reasons for particular treatment choices, and no comparison group without CLE was available. Previous treatment history and current treatment were based on patient report and medical records, which may be incomplete, and cumulative corticosteroid dose, an important determinant of treatment-related complications, was not quantified. The sample mixed patients with primary CLE and those with systemic lupus or systemic manifestations, which should be considered when applying these findings to skin-limited disease specifically. Finally, the study was conducted at one centre, and multicentre data would better represent the national picture.

CONCLUSION

Most patients with CLE seen at this tertiary care hospital in Bangladesh were young women from lower socio-economic status and predominantly had generalized skin disease and systemic involvement. The majority of patients had mild to moderate disease activity as measured by CLASI, and hydroxychloroquine (sometimes in combination with prednisolone) was the most common treatment strategy, while steroid-sparing agents were not widely used. The findings of these descriptions are based on one hospital and can be used in the planning of services, counselling of patients, and comparative studies on CLE in Bangladesh and elsewhere.

REFERENCES

1. Hejazi EZ, Werth VP. Cutaneous lupus erythematosus: an update on pathogenesis, diagnosis and treatment. Am J Clin Dermatol. 2016;17:135-46.
2. Curtiss P, Walker AM, Chong BF. A systematic review of the progression of cutaneous lupus to systemic lupus erythematosus. Front Immunol. 2022;13:866319.
3. Boodhoo KD, Liu S, Zuo X. Impact of sex disparities on the clinical manifestations in patients with systemic lupus erythematosus: a systematic review and meta-analysis. Medicine (Baltimore). 2016;95(29):e4272.
4. Albrecht J, Taylor L, Berlin JA, Dulay S, Ang G, Fakharzadeh S, et al. The CLASI (Cutaneous Lupus Erythematosus Disease Area and Severity Index): an outcome instrument for cutaneous lupus erythematosus. J Invest Dermatol. 2005;125(5):889-94.
5. Klein R, Moghadam-Kia S, LoMonico J, Okawa J, Coley C, Taylor L, et al. Development of the CLASI as a tool to measure disease severity and responsiveness to therapy in cutaneous lupus erythematosus. Arch Dermatol. 2011;147(2):203-8.
6. Chang AY, Werth VP. Treatment of cutaneous lupus. Curr Rheumatol Rep. 2011;13(4):300-7.
7. Ruiz-Irastorza G, Danza A, Khamashta M. Glucocorticoid use and abuse in SLE. Rheumatology (Oxford). 2012;51(7):1145-53.
8. Mowla MR, Barua DP, Zaman S, Chowdhury MIH, Ara S, Reich A. Clinicopathological characteristics of cutaneous lupus erythematosus patients in Bangladesh. Postepy Dermatol Alergol. 2022;39(4):782-7.
9. Salphale P, Danda D, Chandrashekar L, Peter D, Jayaseeli N, George R. The study of Cutaneous Lupus Erythematosus Disease Area and Severity Index in Indian patients with systemic lupus erythematosus. Lupus. 2011;20(14):1510-7.
10. Mohanan S, Bapu NG. Dermatoscopic patterns in Indian patients with discoid lupus erythematosus and correlation to the duration of disease and Cutaneous Lupus Erythematosus Disease Area and Severity Index. Clin Dermatol Rev. 2024;8(1):54-7.
11. Saleem SM, Jan SS. Modified Kuppuswamy socioeconomic scale updated for the year 2021. Indian J Forensic Community Med. 2021;8(1):1-3.
12. Tebbe B, Orfanos CE. Epidemiology and socioeconomic impact of skin disease in lupus erythematosus. Lupus. 1997;6(2):96-104.
13. Barua DP, Chowdhury MIH, Mowla MR, Reich A, Murrell D, Ruzicka T. Comparison of effectiveness of topical tacrolimus 0.1% vs topical halobetasol propionate 0.05% as an add-on to oral hydroxychloroquine in discoid lupus erythematosus. Dermatol Ther. 2021;34(1):e14675.
14. Dubula T, Mody GM. Spectrum of infections and outcome among hospitalized South Africans with systemic lupus erythematosus. Clin Rheumatol. 2015;34:479-88.
15. Fanouriakis A, Kostopoulou M, Andersen J, Aringer M, Arnaud L, Bae SC, et al. EULAR recommendations for the management of systemic lupus erythematosus: 2023 update. Ann Rheum Dis. 2024;83(1):15-29.