Section: Psychiatry

Original Research Article

A CASE-CONTROL STUDY ON THE IMPACT OF STRESSFUL LIFE EVENTS AND QUALITY OF LIFE IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS WITH PSYCHIATRIC DISORDERS

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ABSTRACT

Background: Systemic Lupus Erythematosus (SLE) is a chronic autoimmune condition that affects multiple organ systems and presents with a broad spectrum of clinical manifestations, ranging from mild dermatological symptoms to severe organ involvement. Due to its relapsing-remitting course and unpredictable flares, SLE imposes a considerable physical and emotional burden on affected individuals. This study aimed to compare psychiatric morbidity, the impact of stressful life events, and quality of life between individuals diagnosed with SLE (cases) and healthy controls. **Materials and Methods:** A case-control study was conducted over a six-month period following ethical committee approval and informed written consent. A total of 60 participants were enrolled, comprising 30 consecutive SLE patients attending the Rheumatology Outpatient Department of a Tertiary Care Hospital and 30 matched controls. Inclusion criteria were applied to select eligible cases. The **Presumptive Stressful Life Events Scale (PSLES)** and the **World Health Organization Quality of Life – BREF (WHOQOL-BREF)** were utilized to assess stress and quality of life, respectively. Appropriate statistical methods were used for data analysis. **Result:** Both the case and control groups consisted of 24 females and 6 males, with the majority being married, from upper socioeconomic backgrounds, and residing in rural areas. The PSLES results revealed statistically significant differences between cases and controls, both in terms of the number and severity of stressful life events. When comparing quality of life, controls consistently demonstrated higher mean scores across all WHOQOL-BREF domains, indicating a significantly better quality of life than the SLE group. **Conclusion:** The findings of this study indicate that patients with Systemic Lupus Erythematosus are at a higher risk of developing psychiatric comorbidities. When emotional and psychological factors are not adequately addressed, disease burden and morbidity may be exacerbated. Integrating psychiatric assessment and management into routine rheumatology care may improve overall outcomes for SLE patients.

INTRODUCTION

Systemic Lupus Erythematosus (SLE) is a chronic autoimmune disorder affecting multiple organ systems, with symptoms that can range from mild dermatological manifestations to severe organ involvement. Its relapsing-remitting course and unpredictable flares place a significant physical and emotional burden on patients.[1] Variations in population demographics, environmental exposures, and socioeconomic conditions contribute to substantial global differences in the reported incidence and prevalence of SLE.[2]

Patients with Systemic Lupus Erythematosus (SLE) often experience psychiatric complications, particularly when the central nervous system (CNS) is involved. Common manifestations include anxiety disorders—such as panic attacks and generalized anxiety—as well as mood disorders like depression, and less commonly, bipolar disorder. A small number of patients may develop psychosis, characterized by hallucinations, delusions, and paranoia, often

associated with CNS involvement or corticosteroid therapy. Neuropsychiatric symptoms in SLE are influenced by factors such as disease activity, inflammation, and the presence of autoantibodies targeting brain tissue.[3]

Quality of life (QoL) in patients with Systemic Lupus Erythematosus (SLE) is significantly impaired. Contributing factors include persistent fatigue, chronic pain, physical limitations, and the unpredictable nature of disease flares, all of which disrupt daily activities and social engagement.[4] Additionally, neuropsychiatric manifestations of SLE and the side effects of long-term treatments—such as corticosteroids and immunosuppressants—further diminish well-being. Other challenges, including financial burdens and social isolation, also play a role in lowering QoL for these patients.[4,5]

The aim of this study was to compare psychiatric morbidity, stressful life events, and quality of life between individuals with Systemic Lupus Erythematosus (cases) and healthy controls. The specific objectives were:

- To examine the association between psychiatric disorders and quality of life in patients with SLE.
- To explore the relationship between psychiatric disorders and psychosocial stressors in individuals diagnosed with SLE.

Clinical study in this crucial field is necessary because the interaction between these stressors and psychiatric symptoms can seriously lower overall quality of life among SLE patients. With this background our study intends to investigate the connection between stressful life events and quality of life in patients with SLE who have manifestations, emphasising the value of a multifaceted approach to their care.

MATERIALS AND METHODS

A case-control study was conducted among 60 patients with 30 cases and 30 controls with a duration of six months. This study was conducted in the Rheumatology OPD at Tertiary Care Hospital. A sample of 30 consecutive patients with an established diagnosis of systemic lupus according to American College of Rheumatology (ACR) criteria, Age between 18-65 years of both males and females, having established disease for 6 months and ability to give informed consent for the study were included in the study [6]. Healthy individuals of the same age and sex who were matched with cases were included as controls in the study. Patients with known Psychiatric illness or chronic illness were excluded from our study. Subsequently, Cases who were diagnosed with SLE were assessed for Psychiatric disorders by Psychiatrists from the same hospital. Presumptive Stressful Life Events and The World Health Organization Quality of Life (WHOQOL- BR) scales are used as study tools to assess stressful life events and the quality of life of the patients [7,8]. Data were collected and analysed using IBM SPSS. Unpaired t-test were used as a statistical test to compare cases and controls.

RESULTS

Table 1: Sociodemographic profile of the patients

Variable		Cases n = 30 (%)	Controls n = 30 (%)
Age (in years)		38.5 ± 12.7	37.7 ± 13.2
Gender	Male	6 (20)	6 (20)
	Female	24 (80)	24 (80)
Marital status	Married	22 (73.3)	22 (73.3)
	Unmarried	8 (26.7)	8 (26.7)
Socioeconomic status	Lower Middle class	3 (10)	3(10)
	Upper Lower class	27 (90)	27 (90)
Place of living	Rural	17 (56.7)	17 (56.7)
	Urban	13 (43.3)	13 (43.3)

Table .1 shows the sociodemographic profile of the patients. The mean & SD of age among Cases & Controls are 38.5 ± 12.7 & 37.7 ± 13.2 years. There were 24 females and 6 males in both the Cases & Controls. The majority of them were married and belonged to the Lower class. Majority of the participants were from rural areas.

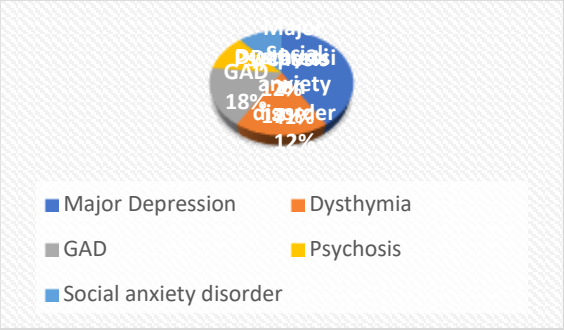

Figure 1: Type of Psychiatric disorder among SLE patients

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Table 2: Comparing PSLES among cases and controls

Variable	Cases	Controls	p-value
PSLE Events	3.37 ± 1.09	1.57 ± 0.72	0.0001*
PSLE Scores	184.70 ± 69.30	81.20 ± 37.60	0.0001*

p = <0.05 considered as significant

The Presumptive Stressful Life Events Scale was assessed among cases & controls. The mean & SD of PSLE Events among Cases & Controls are 3.37 ± 1.09 & 1.57 ± 0.72. The mean & SD of PSLE Scores among Cases & Controls are 184.70 ± 69.30 & 81.20 ± 37.60. we found statistically significant for both PSLE events & PSLE Scores.

Table 3: Comparing quality of life among cases and controls

Variable	Cases	Controls	p-value
Physical domain	46.90 ± 10.92	64.40 ± 6.64	**0.0001***
Psychological domain	45.53 ± 9.93	72.20 ± 10.78	**0.0001***
Social Relationship domain	38.40 ± 17.35	82.10 ± 15.65	**0.0001***
Environmental domain	41.40 ± 14.40	82.53 ± 13.62	**0.0001***
Total QOL	43.06 ± 11.96	75.31 ± 10.60	**0.0001***

p = <0.05 considered as significant

On comparing quality of life with Cases & Controls the mean & SD scores were better among controls than cases in all the domains. The total QOL among cases is 43.06 ± 11.96 & controls 75.31 ± 10.60. We found statistical significance for all the domains (0.0001).

DISCUSSION

Our study examined the relationship between psychiatric disorders, stressful life events, and quality of life in individuals with Systemic Lupus Erythematosus (SLE). The findings revealed that patients with SLE experienced a higher incidence of stressful life events and significantly poorer quality of life compared to healthy controls. This is consistent with the well-documented challenges faced by SLE patients, including unpredictable disease flare-ups, physical disabilities, and adverse reactions to medications, all of which contribute to psychological distress. In particular, domains such as emotional well-being, social functioning, and physical health were markedly affected in SLE patients.

Mishra P et al conducted a similar study and found the psychiatric disorders among SLE patients were psychosis, depression, social and anxiety disorders, dysthymia, and generalized anxiety disorder, which was seen in 5%, 30%, 5%, 10% and 10% subjects. In our study our study participants had Major Depression 41%, Generalised Anxiety disorder 18%, Dysthymia 17% and each 12% of the patients developed Social anxiety disorder & psychosis which proved psychiatric disorders are very common among SLE patients. In the same previous study, Presumptive Stressful Life Events among cases and controls are 3.35 ± 1.09 and 1.55 ± 0.73. In our study Presumptive Stressful Life Events among cases and controls are 3.37 ± 1.09 and 1.57 ± 0.72 which is the same as the previous study. The PSLE Score among Cases & Controls are 184.68±69.30 and 81.18 ± 37.61 respectively. Our study revealed PSLE Score among Cases & Controls is 184.70 ± 69.30 and 81.20 ± 37.60. In both the studies the PSLE events and PSLE scores were found to be significant among cases & controls (0.0001). The total QOL among the patients with disease activity showed 34.87 ± 6.37 and in our study we found 43.06 ± 11.96. In both the studies quality of life among the cases were poor than the controls and found significant (0.0001) with all the domains.[9] Another similar study by Rodrigues L et al which was done among pregnant females who were diagnosed with SLE found the mean & SD of the scores of the participants on each domain were physical, psychological and Social Relationship domain and environmental domain are 52.21 ± 18.44, 64.17 ± 18.56, 66.33 ± 27.09 and 64.56 ± 18.53 respectively whereas in our study in physical, Psychological and Social Relationship domain and environmental domain were 46.90 ± 10.92, 45.53 ± 9.93 and 38.40 ± 17.35, 41.40 ± 14.40 which is close to their previous study results.[10]

Another contrary study by Khanna S et al found Mean Mex-SLEDAI score was 3.31 ± 3.19 which indicates decrease in quality of life among patients with Systemic Lupus erythematous and in both the studies higher disease activity scores were associated with lower scores in the physical, psychological, social & environment domains.[11] A Systemic review and meta-analysis by Asano NM et al showed a significant prevalence of mental health conditions, including anxiety and mood disorders. Compared to individuals with inactive SLE, those with active SLE had a greater chance of acquiring mood disorders. In our study we found increased prevalence of psychiatric disorders among cases which is consistent with the previous study results.[12] Other studies by Abu-Shakra M et al, Olesińska M et al and Kuriya B et al evaluated the quality of life among patients with different scales and found patients with SLE had poor quality of life than the controls.[13,14,15]

CONCLUSION

Based on the findings in present study, it is shown that Systemic Lupus Erythematosus patients have a high risk of Psychiatric illness and when emotional factors are not addressed adequately, the morbidity of

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these patients may increase. Early recognition and treatment of Psychiatric illness by involving a Psychiatrist as a team member in the Rheumatology clinic may lead to a better outcome

Limitations

1. As this is a case-control study conducted over a limited timeframe, it was not possible to evaluate the long-term progression and outcomes of the patients.
2. The study involved a relatively small sample size, highlighting the need for further research with a larger and more diverse population.

Future Directions

There is a need for further research to better understand the patterns of psychiatric morbidity in SLE patients and how these issues affect their daily functioning. Additionally, longitudinal studies are essential to evaluate the effectiveness of pharmacological and psychotherapeutic interventions over time.

Conflict of interest: No conflict of interest

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