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Pattern of Eczematous and Psychodermatological Disorders in the Geriatric Population: Clinical Insights from a Tertiary Care Hospital

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ABSTRACT

Background: Eczematous and psychodermatological conditions are frequent yet under-recognized amongst the elderly. With advancing age, structural and functional changes in the skin, compounded by psychological comorbidities, contribute significantly to disease burden and impaired quality of life. However, targeted data on these subsets among the Indian geriatric population remains limited. Hence this study has been conducted to assess the clinical pattern and frequency of eczematous and psychodermatological disorders in geriatric patients and to evaluate their impact on quality of life using the Dermatology Life Quality Index (DLQI).

Methods: This was a cross-sectional observational study conducted in the Department of Dermatology, Venereology and Leprosy at a tertiary care hospital in Eastern India. A total of 600 geriatric patients (aged ≥60 years) were evaluated over 12 months. The diagnosis was clinical, supported by history and relevant investigations. Quality of life was assessed using the DLQI questionnaire. Statistical analysis was done using the Chi-square test and descriptive methods.

Results: Out of 600 elderly patients, eczematous disorders were noted in 128 (21.33%) and psychodermatological disorders in 49 (8.16%). Contact dermatitis was the most common eczema subtype (52.34%), followed by seborrheic dermatitis, pompholyx, drug-induced eruptions and atopic dermatitis. Lichen simplex chronicus was the most common psychodermatological condition (61.22%) followed by prurigo nodularis, neurotic excoriations and delusion of parasitosis. DLQI scores were significantly impaired in patients with eczema (p=0.02) and pruritus-related psychodermatoses (p=0.02).

Conclusion: Eczematous and psychodermatological conditions constitute a significant portion of geriatric dermatoses, often impacting psychosocial well-being. Early recognition and integrated management can enhance the quality of life in this vulnerable population.

Key-words: Aging skin, Contact dermatitis, DLQI, Lichen simplex chronicus, Psychodermatoses, Seborrheic dermatitis, Xerosis

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INTRODUCTION

The global population is undergoing a demographic shift with a steady rise in the proportion of elderly individuals. In India, the elderly (aged ≥60 years) constitute over 10% of the total population, and this is expected to rise to 179 million by 2031 [1]. With aging, the skin undergoes physiological, immunological, and structural changes that increase its vulnerability to a range of dermatoses [2]. Among the numerous skin conditions affecting this age group, eczematous dermatoses such as contact

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dermatitis, seborrheic dermatitis, and atopic dermatitis are particularly common. These disorders may present with chronic itching, dryness, scaling, or inflammation, often leading to secondary infections and poor quality of life. Globally, dermatological conditions constitute a major component of non-fatal disease burden, particularly in the elderly age group [3]. Age-related thinning of the skin, reduced sebaceous and sweat gland activity, and impaired barrier function all contribute to the pathogenesis and chronicity of these dermatoses [4].

Additionally, psychodermatological conditions form a unique subset of the elderly, characterized by a complex interaction between psychological factors and dermatological symptoms. Disorders like lichen simplex chronicus, delusional parasitosis, neurotic excoriations, and prurigo nodularis may stem from or result in psychiatric distress [5,6]. These conditions are frequently under-recognized and often misdiagnosed, especially when patients present primarily with dermatological symptoms rather than psychological complaints.

In this context, the assessment of the DLQI becomes particularly relevant. The DLQI provides a validated measure of the psychosocial burden imposed by dermatological conditions. Studies show that even non-life-threatening dermatoses may lead to significant emotional, social, and functional impairments, especially in older adults who may already face isolation, limited mobility, and comorbidities [7].

Despite the high frequency and impact of these conditions, there remains a scarcity of focused Indian studies on eczematous and psychodermatological disorders in the geriatric population. Comprehensive data on prevalence, clinical patterns, and quality-of-life implications are essential to inform patient-centered care.

The present study was undertaken to examine the pattern and burden of eczematous and psychodermatological disorders in elderly patients attending a dermatology outpatient department in Eastern India. It also aims to evaluate the associated quality-of-life impairment using DLQI, thereby providing clinical insight into an underexplored but impactful area of geriatric dermatology [8].

MATERIALS AND METHODS

Place and Design of the Study- This hospital-based, cross-sectional observational study was conducted over 12 months in the Department of Dermatology, Venereology and Leprosy at a tertiary care hospital in Eastern India. The study population comprised geriatric patients aged 60 years and above presenting to the dermatology outpatient department with various skin complaints.

Inclusion Criteria

- Patients aged 60 years or above.
- Patients willing to provide informed consent.
- Patients diagnosed clinically with eczematous or psychodermatological disorders.

Exclusion Criteria

- Patients with bullous disorders, connective tissue diseases, or malignancies.
- Patients unwilling to participate.
- Patients with severe cognitive impairment preventing questionnaire participation.

Clinical Evaluation- Detailed history and examination findings were recorded for each patient. Diagnosis was clinical and supported by relevant investigations such as KOH mount, biopsy, and patch testing, wherever needed.

Assessment Tool- The Dermatology Life Quality Index (DLQI) questionnaire was used to assess the psychosocial impact of skin disease. The tool was administered in the patient's local language.

Statistical Analysis- All data were compiled using Microsoft Excel and analyzed using SPSS version 25.0. Descriptive statistics (mean, percentage) were used to analyze disease patterns. Associations were assessed using the Chi-square test. A $p<0.05$ was considered statistically significant.

Ethical Approval- Ethical approval was obtained from the Institutional Ethics Committee. Written informed consent was taken from all participants before enrollment.

RESULTS

Out of the 600 geriatric patients enrolled in the study, 347 (57.83%) were males and 253 (42.17%) were females. 260 (43.33%) belonged to the age group 60-69 years, 235 (39.17%) were in the age group 70-79 years and 105 (17.5%) were above 80 years. A total of 128

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patients (21.33%) were diagnosed with eczematous dermatoses and 49 patients (8.16%) with psychodermatological disorders. The remaining patients had a wide variety of other cutaneous conditions. The most common form of eczema observed was contact dermatitis**,** accounting for more than half of the eczematous cases (52.34%), followed by seborrheic dermatitis (13.28%), pompholyx (11.72%), drug-induced eruptions (10.94%) and atopic dermatitis (9.38%). Photodermatitis was less frequent (2.34%). Among the psychodermatological group, lichen simplex chronicus was the most common diagnosis **(**61.22% of cases). Prurigo nodularis was found in 24.49% while neurotic excoriations and delusion of parasitosis were uncommon and found in 8.16% and 6.12% of the cases respectively.

Table 1 shows the association between DLQI scores and clinical diagnoses. Conditions like eczema, pruritus, and xerosis showed a statistically significant association with higher DLQI scores, suggesting a profound impact on the patient's quality of life.

Table 1: Association of DLQI Score with Clinical Diagnosis

Diagnosis	n (%)	DLQI Range (n)	p-value
Eczema	128 (21.33)	6–10 (61), 11–20 (44)	0.027
Pruritus	115 (19.17)	11–20 (55), 21–30 (23)	0.029
Xerosis	98 (16.33)	6–10 (40), 11–20 (29)	0.045
Others	259 (43.17)	<5 (majority)	—

Table 2 displays the combined DLQI distribution by both age and gender. Patients in the 70–79 years age group (47.24%) and female patients (56.92%) had a greater proportion of high DLQI scores (11–30), indicating more significant psychosocial impact from skin conditions. This highlights the importance of psychological and social support in the elderly population, particularly among older females.

Table 2: DLQI Score Distribution by Age and Gender (n=600).

DLQI Score Range	60–69 yrs (total=260) n(%)	70–79 yrs (total=235) n(%)	80+ yrs (total=105) n(%)	Male (total=347) n(%)	Female (total=253) n(%)	Total n(%)
0–5	117(45)	65(27.66)	39(37.15)	164(47.26)	57(22.53)	221(36.83)
6–10	78(30)	59(25.10)	26(24.76)	111(31.89)	52(20.55)	163(27.17)
11–20	52(20)	78(33.19)	27(25.71)	59(17)	98(38.74)	157(26.17)
21–30	13(5)	33(14.05)	13(12.38)	13(3.75)	46(18.18)	59(9.83)

Patients aged 70–79 and female patients showed higher DLQI scores, indicating greater life quality impairment.

In Table 3**,** out of 128 cases of eczematous dermatoses, contact dermatitis (Fig. 1) was most common (52.34%), followed by seborrheic dermatitis (Fig. 2) in 13.28%, pompholyx (Fig. 3) in 11.72% and drug-induced eruptions (Fig. 4) in 10.94%. Atopic dermatitis (Fig. 5) accounted for 9.38% and photodermatitis (Fig. 6) was least common (2.34%).

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Table 3: Distribution of Eczematous Dermatoses (n = 128)

Type of Dermatosis	No. of Cases	Percentage (%)
Contact dermatitis	67	52.34
Seborrheic dermatitis	17	13.28
Pompholyx	15	11.72
Drug-induced eruptions	14	10.94
Atopic dermatitis	12	9.38
Photodermatitis	3	2.34

Fig. 1: Contact dermatitis

Fig. 2: Seborrheic dermatitis

Fig. 3: Pompholyx

Fig. 4: Drug-induced eruption

Fig. 5: Atopic dermatitis

Fig. 6: Photodermatitis

Table 4 presents the distribution of psychodermatoses among elderly patients (n = 49). The most common subtype was lichen simplex chronicus (Fig. 7), observed in 61.22% of the cases, followed by prurigo nodularis (Fig. 8) in 24.49%. Less frequently reported conditions included neurotic excoriations and delusion of parasitosis, accounting for 8.16% and 6.13% of the cases respectively. These findings highlight the predominance of chronic pruritic conditions among psychodermatological disorders in the geriatric population

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Table 4: Distribution of Psychodermatoses in the Elderly (n = 49)

Psychodermatological Disorder	Number of Patients (n)	Percentage (%)
Lichen simplex chronicus	30	61.22
Prurigo nodularis	12	24.49
Neurotic excoriations	4	8.16
Delusion of parasitosis	3	6.13

Fig. 7: Lichen simplex chronicus

Fig. 8: Prurigo nodularis

The DLQI scores among elderly patients showed that the majority (36.83%) experienced a mild impact (score 0-5) on quality of life, followed by those with moderate (27.17%) impact (score 6-10) and large (26.17%) impact (score 11–20). Very large impact (score 21-30) was seen in only 9.83%. Only a few patients fell into the extremes (0–1 and >20), indicating that most geriatric dermatoses have a tangible effect on daily functioning (Fig. 9).

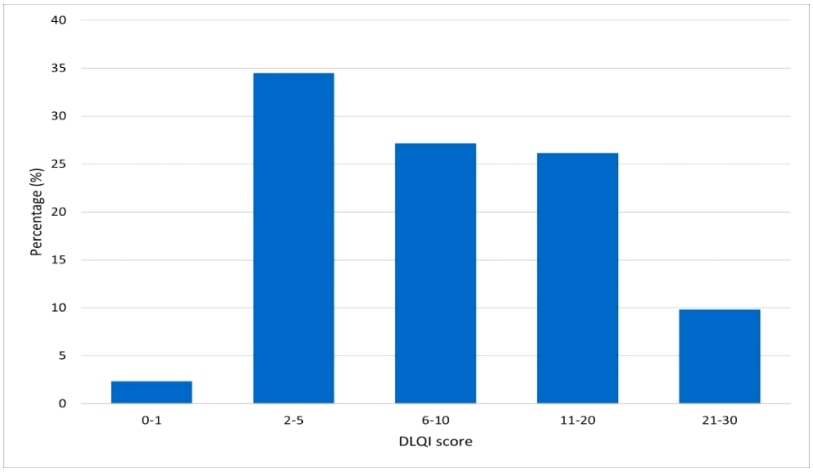

Fig. 9: Distribution of DLQI score distribution

Interestingly patients living alone or are depressed and/or known diabetics were seen to suffer from xerotic dermatitis and eczema more often in our study. Hence it should be kept in mind that self-neglect, lack of proper care and depression in persons living alone might play a role in exacerbation of diabetic dermatoses and other eczematous conditions. Also smoking, alcohol use and sedentary lifestyle were seen to affect the elderly negatively and lead to depression and other psychological conditions.

DISCUSSION

The present study provides important clinical insights into eczematous and psychodermatological conditions in the elderly. Among 600 geriatric patients, eczematous disorders were found in 21.33%, with contact dermatitis being the most frequent subtype. This is comparable to findings by Patange and Fernandez, who reported contact dermatitis in 7.5% of elderly cases [9], and Priya and Thappa, who found 24.2% incidence of eczema in their series [10]. This shades light over a greater burden of

irritant and allergic contact triggers in our regional population.

Psychodermatological disorders were seen in 8.16% of patients, dominated by lichen simplex chronicus. These results align with Chandrashekar *et al*., who observed 13.5% LSC and 8% delusional parasitosis [11]. This reinforces the need for psychiatric assessment in dermatologic practice among the elderly, where psychosocial stress and loneliness are prevalent [12].

There is increasing evidence of a bidirectional relationship between diabetes and depression, as reported by Sridhar [13]. This association might partially explain the higher prevalence of xerotic and eczematous conditions observed in diabetic elderly patients living alone.

The DLQI findings revealed that the majority (53.34%) experienced moderate to large impact and 36.83% mild impact. A similar burden was highlighted by Kandwal *et al*., who showed high DLQI scores in patients with visible or pruritic dermatoses [14]. We also found that living alone, sedentary lifestyle, smoking, and alcohol use were significantly associated with higher DLQI scores—likely reflecting psychosocial and behavioral overlaps [15].

Conditions like eczema, pruritus, and xerosis had statistically significant associations with DLQI ($p<0.05$), confirming Dalgard *et al.*'s findings, where xerosis and pruritus caused major distress in 85% of elderly patients [16]. Likewise, Hahnel *et al.* found xerosis and fungal infections to have profound DLQI impact in elderly German patients [17].

Interestingly, no significant difference in DLQI scores was observed by education, or income, echoing previous studies where psychosocial burden was influenced more by symptom visibility than socio-demographics [18]. However, absolute DLQI scores were slightly higher among females and those aged over 70 years.

Our study strengthens the call for dedicated geriatric dermatology services that incorporate both medical and psychological support. DLQI continues to be a valuable tool for quick yet meaningful psychosocial assessment in elderly dermatologic care [19,20].

CONCLUSIONS

Eczematous and psychodermatological disorders represent a significant subset of geriatric dermatoses. These conditions were found to have a meaningful impact on quality of life, especially when associated with pruritus or visible disfigurement. Psychological and social factors such as isolation, addiction, and underlying psychiatric conditions further worsened outcomes. Our findings emphasize the need for integrative dermatologic care with routine psychosocial assessment using tools like DLQI.

LIMITATIONS

This study was limited by its single-centre design and relatively small sample size, which may affect the generalizability of the findings. As data was collected only from the dermatology outpatient department, individuals with similar conditions in general medicine or psychiatry departments may have been missed. The use of the Dermatology Life Quality Index (DLQI), while validated, may not fully reflect the psychosocial dimensions specific to the elderly. Additionally, the cross-sectional nature of the study precluded follow-up assessment of disease progression or quality-of-life changes over time.

CONTRIBUTION OF AUTHORS

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