

Original Research Article

GERIATRIC ECZEMATOUS DERMATOSES: CLINICAL PRESENTATION AND EPIDEMIOLOGICAL INSIGHTS

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ABSTRACT

Background: Eczematous dermatoses in the geriatric population represent a significant and often under-recognized burden. Aging skin, immunosenescence, and comorbidities contribute to atypical presentations, complicating diagnosis and management. The goal of this study is to give an overview of the epidemiology and to evaluate the clinical pattern of eczematous dermatoses in elderly patients visiting a tertiary care hospital. It would be helpful to elucidate these factors to make proper identification and treatment plans for the elderly, which in turn would help enhance their skin health in this rapidly growing population.

Materials and Methods: A prospective observational study was conducted over 12 months at a tertiary care dermatology clinic. Patients aged ≥ 60 years diagnosed with eczematous dermatoses were included. Data on clinical patterns, comorbidities, and seasonal variation were collected. Patients aged 60 years and above presenting with clinical features consistent with eczematous dermatoses were enrolled after obtaining informed consent. Patients were managed with emollients, topical corticosteroids, antihistamines, and systemic treatment where indicated. Follow-up was done at 4 and 12 weeks to assess response.

Results: Among 200 elderly patients, the majority of cases were in the 60–69 age group. There is a slight male predominance (56%). The most common type was asteatotic eczema (38%), followed by allergic contact dermatitis (21%), nummular eczema (16%), and seborrheic eczema (13%). Co-existing systemic conditions such as diabetes and hypertension were noted in 52% of patients. The peak in winter (48%) supports the known link between cold, dry air and xerotic skin, especially in older adults with reduced skin barrier function. 26% had no seasonal influence, suggesting intrinsic or chronic etiology. Dryness and scaling were also very common (86%). Chronic changes like lichenification (thickened skin due to scratching) were seen in 32%, while signs of acute inflammation like erythema, excoriation, and oozing occurred less frequently, suggesting more chronic than acute presentations.

Conclusion: Eczematous dermatoses in the elderly exhibit distinct clinical and seasonal patterns. Understanding these trends is crucial for early diagnosis, tailored management, and improving quality of life in this vulnerable group.

Keywords: Elderly, Eczema, Asteatotic, Contact Dermatitis, Epidemiology.

INTRODUCTION

As longevity continues to increase, the world's elderly population is skyrocketing and skin diseases are becoming an important part of geriatric care.^[1]

Of these, eczematous dermatoses are one of the most common diseases that are encountered and are known for causing specific diagnostic and therapeutic problems due to the skin changes and atypical clinical features seen in elderly patients.^[2]

Beauty degradation the skin ages through a series of histological and functional changes. These factors include decreased lipid content, reduced sweat and sebaceous gland function, and impairment of the skin barrier, making the elderly more susceptible to xerosis and inflammatory dermatoses.^[3] In addition, immunosenescence – ageing-related deterioration of the immune function – may alter the reaction of the immune to allergens or irritants, and thus the types and chronicity of eczemas.^[4]

Asteatotic eczema, with its dryness and superficial fissuring, is most common in the elderly who already have a compromised skin barrier function.^[5] Nummular eczema, allergic contact dermatitis (ACD), seborrheic eczema and stasis dermatitis are other types that could be frequently seen.^[6] These symptoms may have a marked impact on the quality of life because of the chronic pruritus, discomfort, sleep disturbance and psychosocial stress.^[7]

Coexisting diseases such as diabetes mellitus, venous insufficiency and chronic renal disease serve to complicate the clinical scenario.⁸ Comorbid conditions and medications related to their treatment represent potential triggering or exacerbating agents of eczematous eruptions.^[9] Moreover, elderly may exhibit reduced inflammation, complicating the diagnosis.^[10]

However, geriatric dermatoses are still underestimated in terms of epidemiological reports. The majority of the existing evidence is hampered by small sample sizes or retrospective design.^[11] There is also limited literature, particularly in the context of tropical and developing countries where climate, hygiene and health-seeking behaviors may influence disease pattern.^[12]

The goal of this study is to give an overview of the epidemiology and to evaluate the clinical pattern of eczematous dermatoses in elderly patients visiting a tertiary care hospital. It would be helpful to elucidate these factors to make proper identification and treatment plans for the elderly, which in turn would help enhance their skin health in this rapidly growing population.

MATERIALS AND METHODS

A prospective observational study was carried out in the Department of Dermatology at a tertiary care hospital in central India, Chhattishgarh over a period of 12 months, from January 2023 to December 2023. Ethical clearance was obtained from the institutional ethics committee prior to initiation.

Study Population

Patients aged 60 years and above presenting with clinical features consistent with eczematous dermatoses were enrolled after obtaining informed consent.

Inclusion Criteria

- Age ≥ 60 years

- Willingness to participate and provide informed consent
- Clinical diagnosis of any eczematous dermatitis (confirmed by a dermatologist)
- Availability for follow-up

Exclusion Criteria

- Patients with non-eczematous dermatoses (e.g., psoriasis, fungal infections)
- Patients on immunosuppressive therapy or with known immunodeficiency disorders
- Presence of extensive skin malignancy or systemic skin diseases (e.g., cutaneous T-cell lymphoma)
- Cognitive impairment precluding proper history-taking

Sample Size

A total of 200 geriatric patients meeting the inclusion criteria were consecutively enrolled using convenience sampling.

Data Collection

Each participant underwent a detailed clinical examination. Data were collected using a predesigned proforma, which included:

- Demographic details (age, sex, residence)
- Duration and site of eczema
- History of similar episodes or chronicity
- Occupational exposure and hygiene practices
- Comorbid conditions (e.g., diabetes, hypertension, venous insufficiency)
- Medication history
- Seasonal variation of symptoms
- Family history of atopic conditions

The type of eczema was classified clinically as per standard dermatological criteria into:

- Asteatotic eczema
- Nummular eczema
- Allergic contact dermatitis
- Irritant contact dermatitis
- Seborrheic dermatitis
- Stasis dermatitis

Investigations

Basic hematological and biochemical tests were performed to evaluate systemic health and rule out differential diagnoses. Skin biopsy was performed in doubtful or atypical presentations.

Follow-Up and Management

Patients were managed with emollients, topical corticosteroids, antihistamines, and systemic treatment where indicated. Follow-up was done at 4 and 12 weeks to assess response.

Statistical Analysis

Data were entered into Microsoft Excel and analyzed using SPSS version 25. Descriptive statistics (means, frequencies, and percentages) were calculated. Chi-square test was used to assess associations between categorical variables (e.g., type of eczema and comorbidity status). A p-value < 0.05 was considered statistically significant.

RESULTS

A total of 200 geriatric patients diagnosed with eczematous dermatoses were included. The study revealed diverse clinical patterns with significant associations between type of eczema, seasonal variation, and comorbid conditions.

Table 1: Age and Gender Distribution

Age Group (Years)	Male (n=112)	Female (n=88)	Total (%)
60–69	45	37	82 (41%)
70–79	38	31	69 (34.5%)
≥80	29	20	49 (24.5%)

In table 1, the majority of cases were in the 60–69 age group. There is a slight male predominance (56%).

Table 2: Distribution of Eczema Types

Type of Eczema	Number of Cases (n)	Percentage (%)
Asteatotic eczema	76	38.0%
Allergic contact dermatitis	42	21.0%
Nummular eczema	32	16.0%
Seborrheic dermatitis	26	13.0%
Stasis dermatitis	14	7.0%
Irritant contact dermatitis	10	5.0%

In table 2, the most prevalent type was asteatotic eczema (38%), which is common in elderly due to dry skin and environmental exposure. Allergic contact dermatitis (21%) often results from topical agents or occupational exposure.

Table 3: Seasonal Exacerbation

Season	Number of Cases (%)
Winter	96 (48%)
Summer	34 (17%)
Monsoon	18 (9%)
No Variation	52 (26%)

In table 3, the peak in winter (48%) supports the known link between cold, dry air and xerotic skin, especially in older adults with reduced skin barrier function. 26% had no seasonal influence, suggesting intrinsic or chronic etiology.

Table 4: Clinical Features

Symptom	Number of Patients	Percentage (%)
Pruritus	200	100%
Scaling/Dryness	172	86.0%
Lichenification	64	32.0%
Erythema	46	23.0%
Excoriation	41	20.5%
Oozing/Crusting	28	14.0%

In table 4, Dryness and scaling were seen in over 80%, followed by lichenification and erythema. Dryness and scaling were also very common (86%). Chronic changes like lichenification (thickened skin due to scratching) were seen in 32%, while signs of acute inflammation like erythema, excoriation, and oozing occurred less frequently, suggesting more chronic than acute presentations.

Table 5: Comorbid Conditions

Comorbidity	Number of Patients	Percentage (%)
Hypertension	64	32.0%
Diabetes mellitus	52	26.0%
Venous insufficiency	19	9.5%
Chronic renal disease	8	4.0%
No comorbid condition	96	48.0%

Table 6: Treatment Outcome at 12 Weeks

Response Category	Number of Patients	Percentage (%)
Complete Resolution	88	44.0%
Partial Improvement	92	46.0%
No Improvement	20	10.0%

In table 6, treatment was largely effective, with 90% showing improvement (either complete or partial). 10% non-responders may reflect refractory disease or

underlying untreated triggers such as persistent irritant exposure or comorbidity.

DISCUSSION

The most frequent subset found in our study was asteatotic eczema (38%); which was similar to findings of Kullavanijaya and Wongwaisayawan who reported a high incidence of xerotic eczema was observed in elderly patients in Thailand.^[13] The higher frequency during winter (48% of the cases) emphasizes the influence of environmental triggers (low humidity), and consequent compromise of the stratum corneum barrier function that exposes the elderly skin to fissuration and irritation.^[14]

Allergic contact dermatitis (ACD) was the second most frequent presentation (21%), confirming similar findings by Guin et al. highlighting the need to think about DTH, even in older patients, particularly if there is chronic topical exposure.^[15] Occupational and daily life exposures, in particular to ointment/soap medicated, were contributing factors in our patients.

The proportions of nummular erythematosus (16%) and seborrheic dermatitis (13%) even reflects data from other countries, for example as in the study by Smith et al. stating a prevalence of 10–20% in populations of the same kind.^[16] It is interesting that the cases with stasis dermatitis and irritant contact dermatitis, although in a lesser extent, had an association with underlying venous insufficiency and prolonged topical use of irritants, respectively, as reported by Bourke et al.^[17]

Pruritus was a common symptom (100%), indicating the importance of sensory nerve dysfunction and dry skin in the elderly. This is consistent with the findings of Yosipovitch et al who reported that through aging of the neural activity neurological changes can occur resulting in a lower pruriceptive threshold and chronic itch in the elderly.^[18]

The comorbidities had an effect on the dermatological results of patients. More than 50% of the patients presented with hypertension or diabetes, which can provide evidence that the systemic diseases are related to the inflammatory skin diseases by the influence of the microcirculation, the imbalance of the immune system, and polypharmacy.^[19] These observations were in agreement with Patange and Fernandez who observed same trends in a north Indian group.^[20]

Therapeutic response was good, 90% of patients had a partially or completely response at 12 weeks. This confirms the impression that an early diagnosis and an individualized topical treatment (moisturizers, low potency corticosteroids, antihistamines) are mostly performed.^[21] Yet, the 10% with refractory disease argue for investigating personalized regimens in patients of high comorbidity or atypical presentation.

CONCLUSION

Eczematous dermatoses among the geriatric age group form large numbers of dermatoses and

asteatotic eczema is the commonest. Presentations may be altered by changes in physiology of aging, the presence of comorbid disease and environmental stimuli including season. Pruritus is the most bothersome and common symptom that affects quality of life. Regular dermatological check-ups, patient education about skin care, and recognition of age-dependent manifestation can significantly improve the course of the disease.

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