

# Clinical Study on the Spectrum of Geriatric Dermatoses in Eastern India

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**Abstract:** Introduction: Skin diseases are a major health problem in the geriatric age group. With an aging population worldwide, understanding the unique dermatological challenges faced by elderly individuals is essential for providing effective healthcare tailored to their specific needs. Aim: To analyze the clinical patterns of skin disorders in elderly individuals. Materials and methods: 664 geriatric patients aged 60 and above, with clinical evidence of cutaneous disorders were studied. Results: The most prevalent conditions were xerosis (40%), senile pruritus (24%), fungal infections (15%), and senile purpura (12%). Senile pruritus was seen in around 24% of the patient population. Eczema (6%) and psoriasis (4%) were inflammatory conditions commonly seen, Seborrheic dermatitis (2%) also presented. Drug-induced dermatological conditions were noted in 3% of patients. Conclusion: This study underscores the prevalence of dermatological disorders in the elderly, with xerosis, fungal infections, and senile pruritus being the most common. The findings emphasize the importance of early diagnosis and management of geriatric dermatoses to improve the quality of life of elderly individuals.

**Keywords:** geriatric dermatoses, xerosis, pruritus

## 1. Introduction

The study of geriatric dermatoses is of paramount importance due to the profound impact of skin conditions on the health and well-being of older adults. With an aging population worldwide, understanding the unique dermatological challenges faced by elderly individuals is essential for providing effective healthcare tailored to their specific needs. Geriatric dermatoses encompass a wide spectrum of skin disorders that manifest differently in older adults compared to younger individuals. The elderly population is highly susceptible to a wide range of dermatological conditions due to natural aging processes, such as reduced skin elasticity, slower healing, and changes in immune function. Furthermore, the elderly often have comorbid conditions like diabetes and hypertension, which can exacerbate dermatological problems.

In India, where there is a growing elderly population, it is essential to understand the spectrum of dermatoses in this age group to provide better healthcare services. Although several studies have focused on geriatric skin conditions, there is a paucity of data from this region.

## 2. Materials and Methods

This was a cross-sectional, observational study conducted at the Dermatology OPD of Rajendra Institute of Medical Sciences, Ranchi, from November 2023 to October 2024. The study included both male and female patients aged 60 years and above presenting to the Dermatology OPD with any dermatological complaint. Patients with incomplete data, unwilling to participate in the study and those with cognitive impairments were excluded. A total of 664 elderly patients were included based on convenience sampling during the

study period. Data were collected through detailed history-taking, dermatological examinations, and relevant laboratory investigations wherever required, after obtaining informed consent. Ethical clearance was obtained.

## 3. Results

Among the 664 patients studied, 58% were males and 42% were females, with a male to female ratio of 1.3:1. Most of the patients (60%) belonged to the 60-69 years age group (Figure 1).

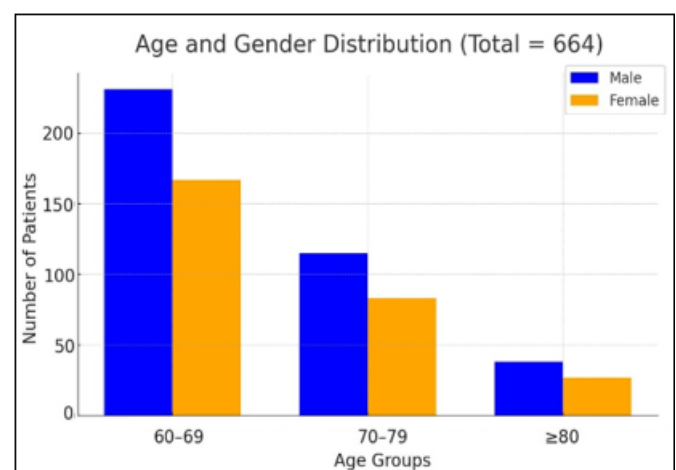


Figure 1

A total of 73% patients presented with some form of comorbidity out of which 35% had diabetes, 30% had hypertension and 8% had chronic kidney disease. (Figure 2)

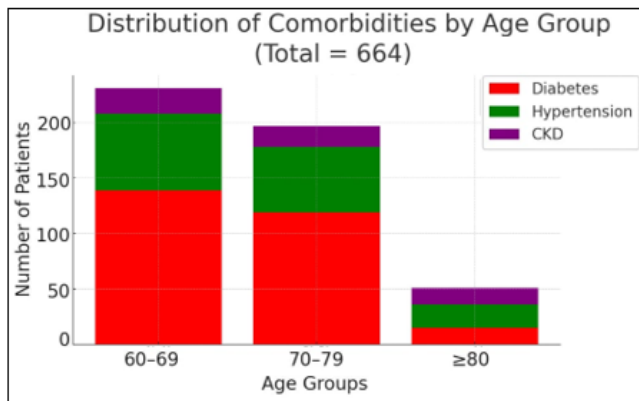


Figure 2

The most prevalent conditions were xerosis (40%), senile pruritus (24%), fungal infections (15%) and senile purpura (12%) [Figure 3]. The findings suggest that aging-related physiological changes such as xerosis and senile purpura are highly common in the elderly, with xerosis being the most

frequent. Another common dermatoses studied were infections and infestations followed by eczemas. The most common infective dermatosis being fungal infection in 99 cases with dermatophytosis being the most prevalent (15%), other less common were scabies, herpes zoster, bacterial infections and warts [Figure 4]. Eczema (6%) and psoriasis (4%) were inflammatory conditions commonly seen, which are frequently exacerbated by environmental factors or comorbidities in older individuals. The prevalence in eczemas was highest seen with allergic contact dermatitis followed by atopic, stasis and irritant. Seborrheic dermatitis (2%) also presented but at a relatively lower frequency. Drug-induced dermatological conditions were noted in 3% of patients, a known occurrence in the elderly due to polypharmacy. A total of 36 cases (5%) were found to have immunobullous disorders in this study. A total of 10 patients were found to have malignant disorders in this study, 7 of which had basal cell carcinoma and 1 had squamous cell carcinoma. 2.2% patients had vitiligo and 3% had seborrheic keratoses. [Table 1]

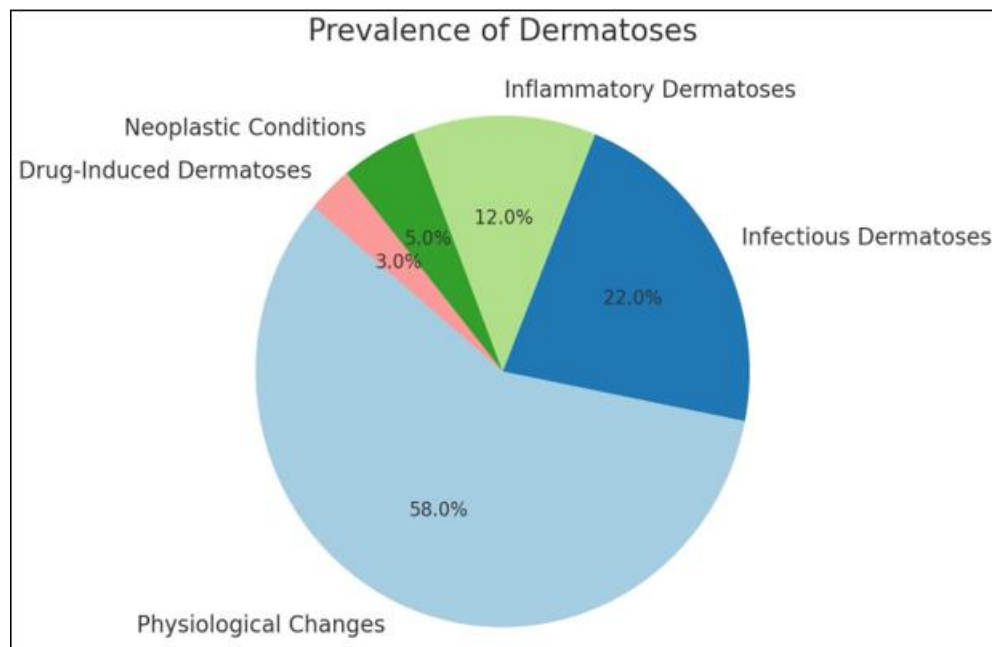


Figure 3

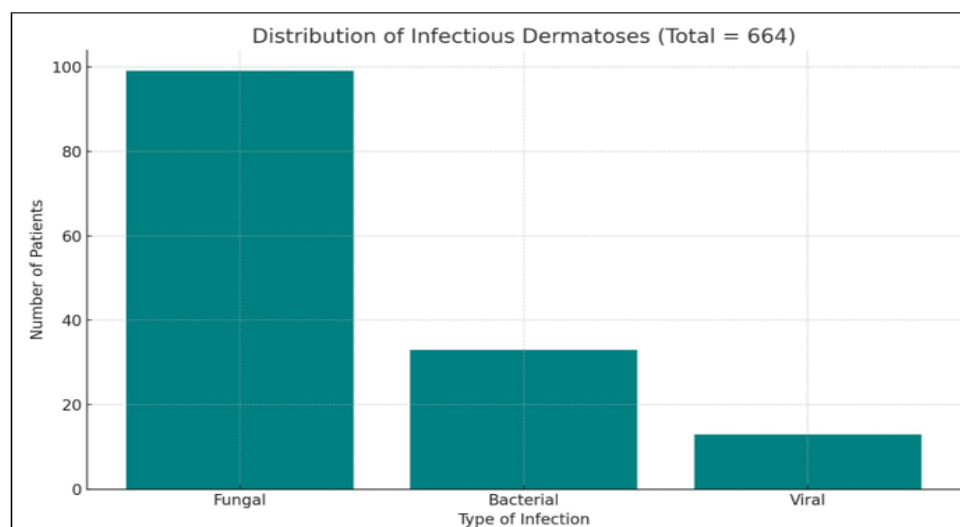


Figure 4

**Table 1: Types of Dermatoses**

Category	Number of Cases	Percentage (%)
Physiological Changes		
Xerosis	266	40
Senile Purpura	80	12
Senile Lentiginos	67	10
Infectious Dermatoses		
Fungal Infections	99	15
Bacterial Infections	33	5
Viral Infections	13	2
Scabies	15	2
Inflammatory Dermatoses		
Eczema	40	6
Psoriasis	27	4
Seborrheic Dermatitis	13	2
Lichen planus	40	6
DLE	3	0.4
Immunobullous disorders	36	5
Malignant Conditions		
Basal Cell Carcinoma (BCC)	7	1
Squamous Cell Carcinoma (SCC)	3	0.5
Drug-Induced Dermatoses	20	3
Hansens disease	29	4.3
Vitiligo	15	2.2
Seborrheic Keratosis	20	3
Senile pruritus	160	24
Others	70	10

## 4. Discussion

This study provides a comprehensive analysis of the spectrum and frequency of dermatological conditions affecting the geriatric population in a tertiary care setting in Jharkhand. With a total of 664 patients aged 60 years and above, our findings underscore the dermatological burden borne by the elderly—a demographic that is steadily increasing with improvements in life expectancy.

**Physiological skin changes** were the most common presentation, with xerosis observed in 40% of patients. This is consistent with findings from other studies, which report xerosis as the most frequently encountered condition due to reduced sebaceous and sweat gland activity, impaired barrier function, and decreased hydration associated with aging skin. [1],[2] Senile pruritus, often linked to xerosis and idiopathic causes, was also highly prevalent (24%), significantly impacting the quality of life in affected individuals [3].

**Infectious dermatoses** were another major category, with fungal infections being the most frequent (15%), predominantly dermatophytosis. The increased susceptibility in this age group can be attributed to immunosenescence, comorbidities such as diabetes, and poor hygiene or mobility issues [4],[5]. Bacterial infections, scabies, herpes zoster, and viral warts were also observed, aligning with the global epidemiological trend in the elderly population [6].

**Inflammatory dermatoses** included eczema (6%) and psoriasis (4%), which are commonly exacerbated in this age group due to chronic irritant exposure, environmental triggers, and systemic comorbidities. Among eczemas, allergic contact dermatitis was the most frequent subtype, followed by atopic, stasis, and irritant types—paralleling

trends seen in other geriatric studies [7],[8]. Psoriasis in the elderly often presents with atypical patterns and increased treatment challenges due to comorbidities and polypharmacy concerns [9].

**Immunobullous disorders** were noted in 5% of patients, an important observation as these autoimmune conditions, particularly bullous pemphigoid, are more prevalent in older adults and can significantly impact morbidity if undiagnosed [10]. Although relatively rare, cutaneous malignancies were detected, with basal cell carcinoma (1%) and squamous cell carcinoma (0.5%) being the most common, consistent with cumulative UV exposure and photoaging [11].

Drug-induced dermatoses (3%) reflect the challenges of polypharmacy, which is common in elderly patients and often leads to adverse cutaneous reactions [12]. Hansen's disease (4.3%), vitiligo (2.2%), and seborrheic keratosis (3%) were also seen, further underscoring the wide diagnostic spectrum in this age group.

Comorbidities such as diabetes (35%), hypertension (30%), and chronic kidney disease (8%) were highly prevalent, suggesting a potential role in the exacerbation or modification of dermatoses. This emphasizes the necessity for a multidisciplinary approach in managing geriatric skin diseases [13].

These findings are comparable to previous studies conducted in other regions of India, although prevalence rates vary due to geographical, environmental, and sociocultural differences [4],[14]. Nonetheless, xerosis, infections, and pruritus remain the consistent top contributors to dermatological morbidity in the elderly.

## 5. Conclusion

The present study highlights the diverse spectrum of dermatological disorders affecting the elderly population, with xerosis, senile pruritus, and fungal infections being the most common. The findings reaffirm that geriatric dermatoses are not only frequent but often underdiagnosed or undertreated, despite their significant impact on the quality of life. A thorough understanding of these conditions, along with their associations with systemic comorbidities and age-related physiological changes, is vital for timely diagnosis and effective management.

As the aging population continues to grow, dermatologists must be attuned to the unique needs of older adults. Early intervention, preventive skincare strategies such as regular skin hydration and sun protection, and individualized treatment plans can improve outcomes and enhance well-being in this vulnerable demographic. Further multicentric studies with a focus on longitudinal outcomes and quality-of-life assessments are warranted to deepen our understanding and improve geriatric dermatological care in India.

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