ORIGINAL RESEARCH PAPER
Volume - 13 | Issue - 07 | July - 2024 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A RETROSPECTIVE STUDY OF CUTANEOUS DISEASES AMONG GERIATRIC PATIENTS IN A TERTIARY CARE CENTRE, CHENNAI.

Dermatology

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ABSTRACT

Background: Due to recent advancements in health care the average life span had increased from 65 years to 69 years over the past few decades and this had bought to light a range of health challenges in the elderly, particularly in the field of dermatology. Geriatric patients frequently present with a diverse array of skin diseases, influenced by physiological changes due to aging. This study seeks to explore the prevalence and risk factors associated with dermatological conditions among this demographic, focusing on the interplay of age and gender in the incidence of these diseases. **Methodology:** This retrospective analysis was done from the patient records who had attended the dermatology outpatient department between May 2022 and January 2024, focusing on patients aged 60 years and above. **Results:** The most prevalent dermatological disorder observed were infectious diseases (23.81%) and age-related skin changes (22.94%), followed by inflammatory disorders (15.54%) and papulosquamous disorders (12.12%). **Conclusion:** The distribution of skin diseases among the elderly our study underscores the need for implementing healthcare strategies that do not discriminate by age or gender but rather addresses the specific dermatological needs of this population holistically.

KEYWORDS

Geriatric dermatology, age-related skin changes, prevalence, India

INTRODUCTION

As the global population ages, geriatric health emerges as a field of increasing importance. The skin, as an organ that continually changes throughout our life, presents with various conditions influenced by intrinsic aging processes and environmental factors.[1] Dermatological conditions in the elderly can significantly increase morbidity and affect the quality of life, necessitating detailed prevalence data to guide healthcare planning and resource allocation. Geriatric dermatology is a subfield that addresses these specific needs, with research indicating the prevalence of certain skin diseases among the elderly. These conditions range from infectious diseases, inflammatory disorders, benign and malignant skin neoplasms.

Previous researches by Yalcin et al. and Liao et al., have emphasized the diversity and frequency of dermatological diseases among the elderly in various global regions, illustrating significant regional variations. This study adds to the existing body of knowledge by mapping the prevalence of various skin diseases in an Indian geriatric cohort, offering insights into potential healthcare needs and resource planning. Building on this foundation, our study aims to delineate the prevalence of various dermatological conditions within an elderly Indian cohort.

Objective

To determine the prevalence and types of dermatological conditions in geriatric patients at a tertiary care center in South India, aiding the development of tailored dermatological care strategies.

MATERIAL AND METHODS

Study Site: Outpatient department of the Department of Dermatology, Venereology and Leprosy at a tertiary care hospital in Chennai.
Study Design: Retrospective descriptive study.
Duration: Data from May 2022 to January 2024 were analyzed.
Sample Size: Records of all geriatric patients (aged 60 years and above) visited during the study period.

Inclusion Criteria

Patients aged 60 years and above diagnosed with dermatological conditions.

Exclusion Criteria

Patients less than 60 years and those with incomplete medical records.

Data Collection

Patient data were categorized by age, gender, and diagnosis based on established dermatological classifications.

RESULTS

Table 1: Prevalence Of Various Dermatological Disorders In The Study Population

CATEGORY	PATIENTS	PERCENTAGE (%)
Infective Diseases	55	23.81
Age-Related Skin Changes	53	22.94
Inflammatory Disorders	36	15.58
Papulosquamous Disorders	28	12.12
Others	24	10.39
Autoimmune/Inflammatory Disorders	10	4.33
Cutaneous Malignancies	8	3.47
Pigmentary Disorders	6	2.60
Benign Neoplasms	5	2.16
Drug reaction	4	1.73
Hansen Disease	2	0.87
Total	231	100.0

Table 2: Prevalence Of Infectious Diseases

Infectious Diseases	Patients	Percentage (%)
Scabies	12	5.19
Onychomycosis	10	4.33
Tinea Corporis	8	3.47
Tinea Cruris	7	3.03
Tinea Incognito	7	3.03
Molluscum Contagiosum	5	2.16
Pityriasis Versicolor	3	1.30
Furunculosis	1	0.43
Pyogenic Granuloma	1	0.43
Herpes Zoster	1	0.43
Total	55	23.81

- High Prevalence of Scabies (5.19%) and Onychomycosis (4.33%) reflects the vulnerability of the elderly population to contagious conditions due to decreased immunity and close living conditions in care settings.
- Management Strategies : These conditions require early diagnosis and management to prevent outbreaks and complications, especially in communal living environments.

Figure 1: Herpes Zoster

Figure 2: Tinea Corporis

Table 3: Prevalence Of Age-related Skin Changes

Condition	Patients	Percentage (%)
Senile Xerosis	50	21.64
Senile Comedones	3	1.30
Total	53	22.94

- Table 3 shows increased prevalence of xerosis (21.64%) among the elderly, which can predispose to secondary bacterial/viral infections if not properly managed.
- Management Strategies: Emphasizes the need for regular skin care routines that include moisturisers to help maintain skin integrity and comfort.

Figure 3: Senile Comedones

Table 4: Prevalence Of Inflammatory Disorders

Condition	Patients	Percentage (%)
Photodermatitis	9	3.9
Eczematous Condition	10	4.33
Irritant Contact Dermatitis	8	3.47
Seborrheic Dermatitis	6	2.60
Allergic Contact Dermatitis	3	1.30
Total	36	15.58

- Table 4 shows increased incidence of Photodermatitis (3.9%), Irritant contact dermatitis (4.33%) and Allergic contact dermatitis (1.30%), possible due to xerosis and increased skin sensitivity.
- Management Strategies: Highlights the need for identifying triggers and providing protective skincare solutions to minimize dermatitis episodes.

Table 5: Prevalence of Papulosquamous Disorders

Condition	Patients	Percentage (%)
Lichen Planus	7	3.03
Lichen Planus Pigmentosus	1	0.43
Lichen Simplex Chronicus	13	5.63
Plantar Psoriasis	5	2.16
Palmo-plantar Psoriasis	2	0.87
Total	28	12.12

- Among the papulosquamous disorders, Lichen Simplex Chronicus (5.63%) stands out, indicating a high incidence itching and chronic scratching with skin thickening, in which emotional and physical stress plays an important role as predisposing factors.
- Management Strategies: Emphasizes the need for stress reduction techniques and topical treatments to manage symptoms and improve quality of life.

Figure 4: Irritant Contact Dermatitis

Figure 5: Lichen Planus

Table 6: Prevalence of Autoimmune/Chronic Inflammatory Disorders

Condition	Patients	Percentage (%)
Bullous Pemphigoid	6	2.60
Pemphigus Vulgaris	2	0.87
Hypertrophic Lichen Planus	2	0.87
Total	10	4.34

- Bullous pemphigoid (2.60%) was found to be the most common auto immune disorder in the study group. The impact of immune system dysfunction in causing severe skin disorders, can be particularly challenging to manage in the elderly due to associated comorbidities.
- Management Strategies: The treatment often involves immunosuppressive medications, which require careful management to balance efficacy with potential side effects in elderly patients.

Table 8: Prevalence of Cutaneous Malignancies

Condition	Patients	Percentage (%)
Basal Cell Carcinoma	6	2.60
Cutaneous T-cell Lymphoma	2	0.87
Total	8	3.47

- The incidence of basal cell carcinoma (2.60%) and cutaneous T-cell lymphoma (0.87%) indicates the ongoing risk of skin cancer in the elderly, a critical issue given the cumulative sun exposure over a lifetime.
- Management Strategies: Regular dermatological examinations are essential for early detection and management of skin cancers, which can significantly improve quality of life for elderly patients.

Figure 6: Basal Cell Carcinoma.

Table 9: Prevalence of Benign Neoplasms

Condition	Patients	Percentage (%)
Seborrheic Keratosis	3	1.30
Keratoacanthoma	2	0.87
Total	5	2.17

- Seborrheic keratosis (1.30%) is the commonest benign cutaneous tumour that increases with age, generally requiring observation unless symptomatic or cosmetically concerning.
- Management Strategies: Often, monitoring is sufficient, but treatment may be necessary if there is discomfort, potential for confusion with malignant lesions, or patient desire for removal for aesthetic reasons.

Table 10: Prevalence of Pigmentary Disorders

Condition	Patients	Percentage (%)
Idiopathic Guttate Hypomelanosis	4	1.73
Localized Vitiligo	2	0.87
Total	6	2.60

- These disorders, while not dangerous, can have a significant psychological impact due to their visible nature and the stigma associated with their appearance.
- Management Strategies: Treatment focuses on cosmetic solutions and, in the case of vitiligo, potentially on therapies that can stabilize the condition or restore pigment.

Figure 6: Vitiligo Ponctue

Table 11: Prevalence of Hansen Disease

Condition	Patients	Percentage (%)
Tuberculoid Hansen	2	0.87
Total	2	0.87

- Rare but Important: Although rare, Hansen's disease (leprosy) is still found in specific global regions and requires prompt and effective treatment to prevent disability.
- Management Strategies: Efforts to control the disease through public health measures and treatments have significantly reduced its prevalence but vigilance is still needed.

Table 12: Prevalence of Other Conditions

Condition	Patients	Percentage (%)
Acne	5	2.16
Post Herpetic Neuralgia	6	2.60
Prurigo Nodularis	4	1.73
Plantar Warts	2	0.87
Bacillary Thrombosis	2	0.87
Alopecia Universalis	2	0.87
Lichen Simplex Et Atrophicus	1	0.43
Discoid Lupus Erythematosus	2	0.87
Total	24	10.39

- Table 12 shows wide range of dermatological conditions, underscoring the diversity of skin issue that can affect the elderly outside the major defined categories.
- Management strategies: Highlights the importance of personalized diagnostic approaches and tailored treatments due to the varied nature of these conditions.

Figure 7: Lichen Amyloidosis

DISCUSSION

Understanding the implications of aging on skin health is crucial for developing effective treatment and management strategies. The comparative study of chronological versus photoaging by Durai et al. offers significant insights into the underlying mechanisms that differentiate skin aging induced by environmental factors versus intrinsic aging. The prevalence rates observed in our study highlight infectious diseases and age- related changes as the most common conditions, aligning with findings from similar demographic studies in other regions. The aging process significantly affects skin physiology and pathology. According to Yaar and Gilchrest, physiological changes in the skin are evident as individuals age, which contributes to various dermatological conditions.[2] This is supported by multiple studies across different regions, demonstrating a varied prevalence and types of skin diseases among the elderly. For instance, Darjani et al. noted specific skin disorder patterns among elder patients in northern Iran, which provides insight into regional dermatological health needs.[3]

Prevalence studies, such as those by Yalcin et al. and Bilgili et al., have documented the common skin diseases observed in geriatric patients in different parts of the world, including Turkey and Eastern Turkey, respectively. These studies indicate a wide range of skin conditions, from papulosquamous disorders and infections constitute a major proportion of dermatoses affecting the elderly population[5,6] Similarly, Liao et al. conducted a 7- year survey in Taiwan, noting a distinct pattern of skin diseases prevalent among geriatric patients.[7]

In-depth clinical studies like those by Grover and Narasimhaul and Patange and Fernandez have provided detailed analyses of skin changes and disease patterns in the geriatric population in India,

showing similar trends to global observations.[8,9] Further research by Cvitanovic et al. in Croatia reinforces the global perspective, highlighting the commonality of skin issues among the elderly irrespective of geographic location.[10]

CONCLUSION

This study provides essential insights into the dermatological health of the elderly in developing countries, highlighting prevalent conditions that require targeted intervention and resource allocation for better management and improved quality of life. Addressing skin health in the elderly requires a comprehensive understanding of both global and regional epidemiology, as demonstrated by the studies referenced. Effective management strategies must consider these diverse factors to improve the quality of life for this growing population segment.

Limitation

The study's retrospective nature may limit the accuracy of the prevalence rates due to potential biases in record keeping. Additionally, the single-centered study design may not generalize across different geographic or socio-economic contexts.

Conflict Of Interest: None declared.

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