

DERMATOLOGIC DISEASES IN GERIATRIC PATIENTS

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Abstract

Introduction: The global growth of the elderly population has prompted an increased awareness of the health of this age group, especially in the treatment and prevention of dermatological disorders. The skin, as the largest organ of the body, is affected by aging processes, which can be accelerated by environmental factors.

Purpose: To analyze the frequency and characteristics of dermatological diseases in geriatric patients in the Dermatology Service, QSUT, as well as to assess the need for specialized hospital services for this population.

Methodology: This is a retrospective and prospective study, where 103 patients over the age of 60 were included. For its realization, medical data extracted from the medical records of patients who were previously treated in the ward were used, as well as through direct interviews with patients during the study period.

Results & Conclusions: Our study showed that the majority of geriatric patients admitted to the Dermatology Service, QSUT, were in the age group of 66-70 years, with male dominance. Pruritus was the most common dermatological symptom, reported by 79% of patients, while immunological diseases, eczematous dermatitis, cutaneous neoplasms and psoriasis were among the most frequent diagnoses.

This study highlights the importance of providing specialized care to geriatric patients, emphasizing the need for a multidisciplinary approach to the effective treatment of dermatological diseases and comorbidities.

Keywords: global growth, dermatological diseases, geriatric patients, diagnose, treatment.

SËMUNDJET DERMATOLOGJIKE NË PACIENTËT GERIATRIKË.

Abstrakt

Hyrje: Rritja globale e popullsisë së moshuar ka nxitur një ndergjegjësim të shtuar për shëndetin e kësaj grupmoshe, veçanërisht në trajtimin dhe parandalimin e çrregullimeve dermatologjike. Lëkura, si organi më i madh i trupit, është e ndikuar nga proceset e plakjes, të cilat mund të përshpejtohen nga faktorët mjedisorë.

Qëllimi: Analizimi i frekuencës dhe karakteristikave të sëmundjeve dermatologjike të pacientët geriatrikë në Shërbimin e Dermatologjisë, QSUT, si dhe të vlerësojë nevojën për shërbime të specializuara spitalore për këtë popullatë.

Metodologjia: Ky është një studim i tipit retrospektiv dhe prospектив, ku janë përfshirë 103 pacientë mbi moshën 60 vjeç. Për realizimin e tij u shfrytëzuan të dhënat mjekësore të nxjerra



nga kartelat mjekësore të pacientëve që ishin trajtuar më parë në pavion, si dhe nëpërmjet intervistave të drejtpërdrejta me pacientët gjatë periudhës së studimit.

Rezultate & Konkluzione: Nga studimi jonë doli që shumica e pacientëve geriatrikë të shtruar ne Shërbimin e Dermatologjisë, QSUT, ishin të grupmoshës 66 – 70 vjeç, me dominim të meshkujve. Pruriti ishte simptoma më e zakonshme dermatologjike, e raportuar nga 79% e pacientëve, ndërsa sëmundjet imunologjike, dermatitet ekzematoze, neoplazitë kutane dhe psoriasis ishin ndër diagozat më të shpeshta.

Ky studim nënëvizon rëndësinë e ofrimit të kujdesit të specializuar për pacientët geriatrikë, duke theksuar nevojën për një qasje multidisiplinare për trajimin efektiv të sëmundjeve dermatologjike dhe sëmundjeve shoqëruese.

Fjalë kyçë: rritje globale, sëmundje dermatologjike, pacientë geriatrikë, diagnose, trajtim.

Introduction

Changing population demographics around the world, resulting in an increasing elderly population, lead to heightened awareness of health issues in this portion of the population. Among these, prevention and treatment of the highly prevalent skin disorders constitute a major concern [1]. The skin is the largest organ and has a key protective role. Similar to any other tissue, the skin is influenced not only by intrinsic/chronological aging, but also by extrinsic aging, triggered by environmental factors that contribute to accelerating the skin aging process [2].

The skin exhibits multiple functions, among them it serves as a protective barrier between internal organs and the environment, but is also a complex organ with multiple cell types and structures. It is divided into four major compartments: epidermis, dermis, appendages and subcutaneous tissue. With increasing age the epidermis, the dermis and the skin appendages progressively lose their youthful characteristics and abilities; the skin gradually loses its structural and functional characteristics. Consequently, the skin becomes more fragile and vulnerable to damage which may lead to major aging-associated diseases [3].

Table 1. Function of human skin that decline with age [1]

Barrier recovery	Wound healing
Cell proliferation	Vitamin D production
Thermoregulation	Sweat production
Lymphatic drainage	Sebum production
Immune responsiveness	DNA repair

Disorders of the skin are known to be common and bothersome in the elderly, and some occur predominantly in this age group. Such disorders often appear to be the consequence of age-associated intrinsic losses of cutaneous cellular function. However, many dermatoses observed more commonly in the elderly reflect the higher prevalence of systemic diseases, such as diabetes, vascular insufficiency, and various neurologic syndromes, that compound physiologic changes in the skin itself [4]. Furthermore, factors that are more common in the elderly, such as decreased mobility, the increase of certain chronic diseases or an increase in adrug that can cause skin disorders as a side effect, all increase the risk of developing many dermatological diseases. Disorders which hinder vascular efficiency and immune response, such as diabetes mellitus, HIV, congestive heart failure and atherosclerosis, are all examples of diseases that can often cause skin disease or exacerbate already detrimental skin conditions [5].

The most frequent dermatological diseases in geriatric patients

Common dermatoses in this population include xerosis, skin cancer, eczematous conditions, fungal infections, and chronic wounds [6].

Table 2. Classification of common gerodermatoses [7].Physical factors

Pressure sores (decubitus ulcers)
Xerosis
Pruritus
Asteatotic dermatitis
Infections Bacterial
Impetigo/folliculitis
Cellulitis
Viral
Herpes Zoster
Molluscum Contagiosum
Fungal
Onychomycosis
Tinea pedis
Tinea corporis
Intertrigo
Infestations
Pediculosis
Scabies
Eczematous reactions
Nummular eczema
Sebarrhoic dermatitis
Contact dermatitis
Psoriasis
Photodermatoses
Solar elastosis
Nodular elastoidosis
Cutis rhomboidalis nuchae
Poikilodermic changes
Neoplastic changes
Benign
Seborrheic keratosis
Skin tags
Cherry angiomas
Leukoplakia
Actinic keratosis
Malignant
Actinic cheilitis
Basal cell carcinoma

Squamous cell carcinoma

Malignant melanoma

Immunological

Bullous pemphigoid

Psychodermatoses

Lichen simplex chronicus

Prurigo nodularis

Neurotic excoriations

Delusion of parasitosis

Dermatitis artefacta

Vascular compromise

Chronic venous insufficiency (stasis dermatitis)

Cutaneous drug reactions

Nutritional changes

Material and method

This study aims to investigate and analyze the frequency of dermatological diseases among geriatric patients at the “Mother Teresa” University Hospital Center in Tirana. It seeks to assess the needs and examine the importance of specialized hospital services for this age group. Initially, the distribution of patients is analyzed according to general demographics, age, gender, profession, and accompanying diseases. The presented study also aims to correlate the patients’ subjective clinical data with their accurate final diagnosis.

This study is of a cross-sectional retrospective and prospective type, collecting data from patients treated at the Dermatology Service of the “Mother Teresa” University Hospital Center in Tirana during the period from October 2023 to May 2024. The study included 103 geriatric patients admitted to the dermatology ward during the study period. All patients included in the study were 60 years and older. Patients who refused to participate in the study or did not provide sufficient information for statistical analysis were excluded.

Data collection was conducted through two approaches:

1. Retrospective Data: Medical records of previously treated patients in the dermatology ward were reviewed to extract relevant information, including dermatological diagnoses, medical history, and treatment details.
2. Prospective Data: Structured interviews were conducted with patients during their hospitalization, documenting information such as dermatological diagnoses, detailed medical history, past and ongoing treatments.

All procedures followed ethical standards, ensuring confidentiality and protection of personal data. Participation was voluntary, and informed consent was obtained from all patients. Data were exclusively for scientific purposes.

This study had two primary limitations:

A relatively small sample size.

Data limited to patients treated exclusively at the “Mother Teresa” University Hospital Center.

Statistical analysis:

Collected data were organized using Microsoft Excel and analyzed statistically using SPSS BMI



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Results

Distribution of Patients by Age

The majority of patients (37%) belong to the age group of 66-70 years, followed by 31% in the 60-65 age group. Patients aged 71-75 years account for 14% of the sample, while 9% fall within the 76-80 age range, and another 9% are over 80 years old.

Table 3. Distribution patients by age

Age group (years)	Male	Female	Total (N)	Percentage (%)
60-65	20	12	32	31%
66-70	18	20	38	37%
71-75	9	6	15	15%
76-80	8	1	9	9%
>80	5	4	9	9%
Total (103)	60	43	103	

Distribution of Patients by Gender

In the study group, there was a predominance of males, who constituted 58% of the total, while females accounted for 42%.

Table 4. Distribution of patients by gender

Gender	Total (N)	Percentage (%)
Male	60	58%
Female	43	42%
Total	103	

Distribution of Patients by Profession

The majority of study population comprises pensioners, accounting for 71% of the total, including both males and females. Following them, 12% of the population consists of active individuals. Patients receiving economic assistance make up 9%, while self-employed individuals and the unemployed each represent 4% of the total. Additionally, one veteran was included among the patients.

Table 5. Distribution of patients by profession

Profession	Male	Female	Total (N)	Percentage (%)
Pensioners	38	35	73	71%
Active Ind.	11	1	12	12%
Economic Assistance	4	5	9	9%
Self-employed	3	1	4	4%
Unemployed	3	1	4	4%
Veteran	1	0	1	1%
Total	60	43	103	

Distribution of Patients by Comorbidities

Out of the 103 patients, 79 had comorbid conditions. The most common comorbidity was hypertension, with 31 patients (30% of the total) having hypertension without any other associated conditions. The second most common comorbidity was diabetes mellitus, which was present in 10 patients (10%).

Additionally:

20 patients (19%) had both hypertension and diabetes mellitus.

Rarer comorbidities included:

Hypertension with benign prostatic hyperplasia in 4 patients (4%).

Hypertension with chronic kidney disease in 4 patients (4%).

Other comorbidities were:

Asthma in 3 patients (3%)

Venous insufficiency in 2 patients (2%)

Psychiatric disorders in 2 patients (2%)

Rectal cancer in 1 patient (1%)

Rheumatoid arthritis in 1 patient (1%)

Systemic lupus erythematosus in 1 patient (1%).

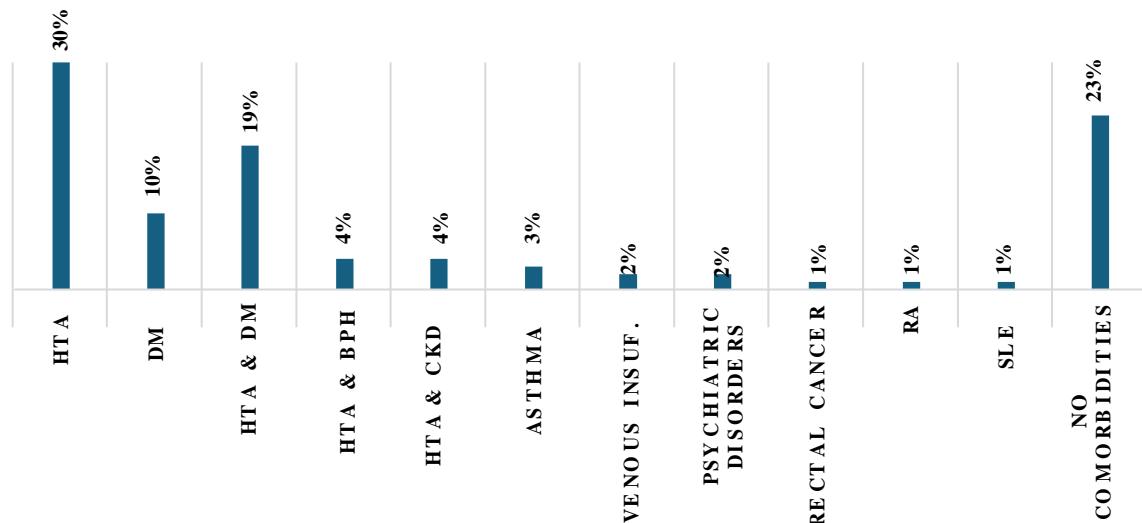
Finally, 24 patients (23%) out of 103 patients had no comorbidities.

Table 6. Distribution of patients by comorbidities

Comorbidities Total (N) Percentage (%)

Hypertension	31	30%
Diabetes mellitus	10	10%
HTA & DM	20	19%
HTA & benign prostatic Hyperplasia	4	4%
HTA & chronic kidney disease	4	4%
Asthma	3	3%
Venous Insufficiency	2	2%
Psychiatric disorders	2	2%
Rectal cancer	1	1%
Rheumatoid arthritis	1	1%
Systemic lupus erythematosus	1	1%
No comorbidities	24	23%

COMORBIDITIES



Distribution of Patients by Primary Complaints

In the dermatology ward, pruritus (itching) was the most common complaint among geriatric patients, with 79% patients (81 out of 103) reporting this symptom. Among this patients, 42% (43 patients) experienced pruritus without any other associated symptoms, 37% (38 patients) had pruritus accompanied by pain. 12% (12 patients) complained solely of pain. 10% (10 patients) had asymptomatic lesions that were not associated with any symptoms, such as pruritus or pain.

Table 7. Distribution of patients by primary complaints

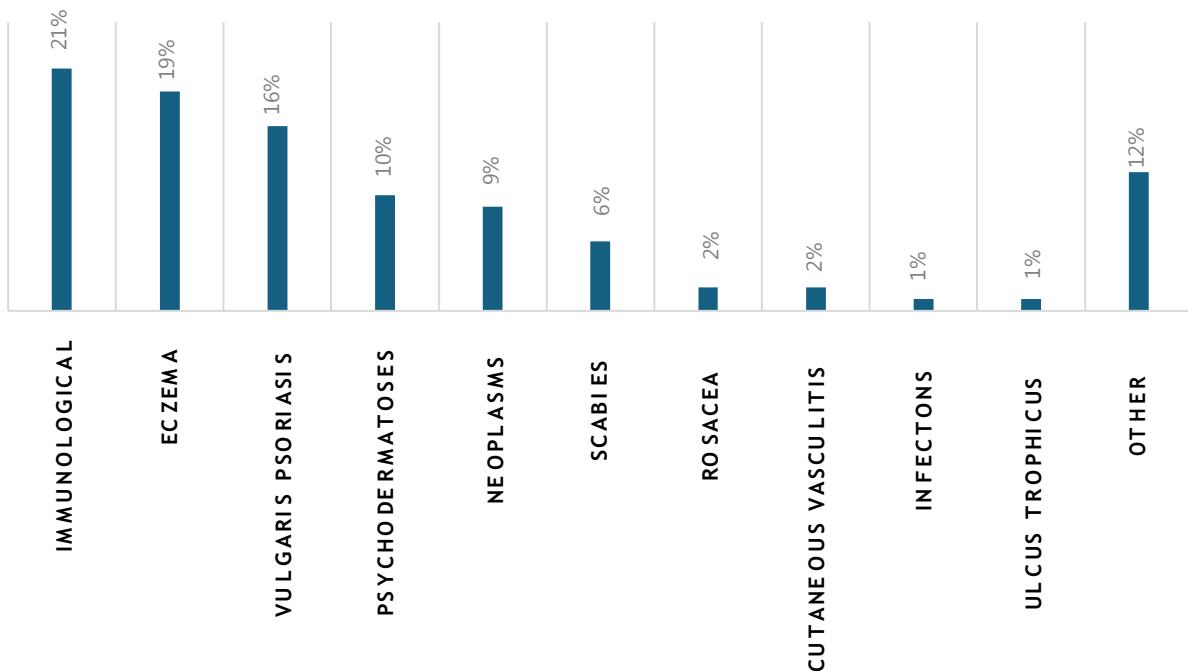
Complaints	Total (N)	Percentage (%)
Pruritus	43	42%
Pruritus & pain	38	37%
Pain	12	11%
Asymptomatic	10	10%
Total	103	

Correlation Between Pruritus and Major Dermatological Diseases

Pruritus was reported by 81 patients in the study, a variety of dermatological conditions were identified among them. The most common dermatological diseases associated with pruritus included immunological dermatological diseases in 21% (17 patients) of cases, and eczema dermatitis in 19% (15 patients). Vulgar psoriasis was diagnosed in 16% (13 patients), while psychodermatoses were present in 10% (8 patients). Additionally, neoplasms were identified in 9% (7 patients), and scabies in 6% (5 patients). Rosacea and leukocystic vasculitis were each found in 2% (2 patients), with 1% having a cutaneous infection and another 1% diagnosed with ulcer trophicus. The remaining 12% (10 patients) presented with other dermatological conditions.

This distribution highlights the diverse range of dermatological diseases that can be associated with pruritus in geriatric patients.

DERMATOLOGICAL CONDITIONS ASSOCIATED WITH PRURITUS



Prevalence of Common Dermatological Diseases in Geriatric Patients

Among the most common dermatological diseases observed in geriatric patients were immunological diseases, eczema dermatitis, cutaneous neoplasms, and vulgar psoriasis. In the study group of 103 patients, 17 were diagnosed with immunological diseases, 15 with eczema dermatitis, 14 with cutaneous neoplasms, and 12 with vulgar psoriasis.

Other prevalent conditions included psychodermatoses in 8 patients, scabies and leukocytoclastic vasculitis, each in 5 patients, and morphea in 3 patients. Infections, ulcers, and rosacea were each identified in 2 patients.

Among the immunological diseases, bullous pemphigoid was the most common, diagnosed in 12 patients. Following this, vulgar pemphigus was identified in 5 patients, and vegetative pemphigus in 1 patient.

As for the cutaneous neoplasms, basal cell carcinoma was the most frequent, present in 4 cases. Other cutaneous neoplasms included mycosis fungoides, Kaposi sarcoma, and cutaneous lymphoma, each affecting 2 patients, while squamous cell carcinoma, Sezary syndrome, Queyrat erythroplasia, and keratoacanthoma were each diagnosed in 1 patient.

In the category of eczema dermatitis, which was diagnosed in 15 patients, chronic eczema was identified in 4 cases, generalized eczema in 3 cases, allergic contact dermatitis in 4 cases, and nummular eczema, annular eczema, stasis dermatitis, and psoriasiform eczema, each in 1 case.

Vulgar psoriasis was identified in 14 patients, while psychodermatoses included prurigo nodularis in 7 patients and lichen simplex chronicus in 1 patient.

Infections were relatively rare, with 1 patient diagnosed with tinea corporis and another with impetigo. Other diseases included lichen planus in 2 patients, parapsoriasis in 2 patients, and lichen planopilaris, lichen scleroatrophic, aphthous stomatitis, granuloma annulare, pityriasis rosea, polymorphous light eruption, photodermatitis, discoid lupus, glandular hyperplasia, necrobiosis lipoidica, and cutaneous sarcoidosis, each present in 1 patient.

Table 8. Distribution of patients based on final diagnosis

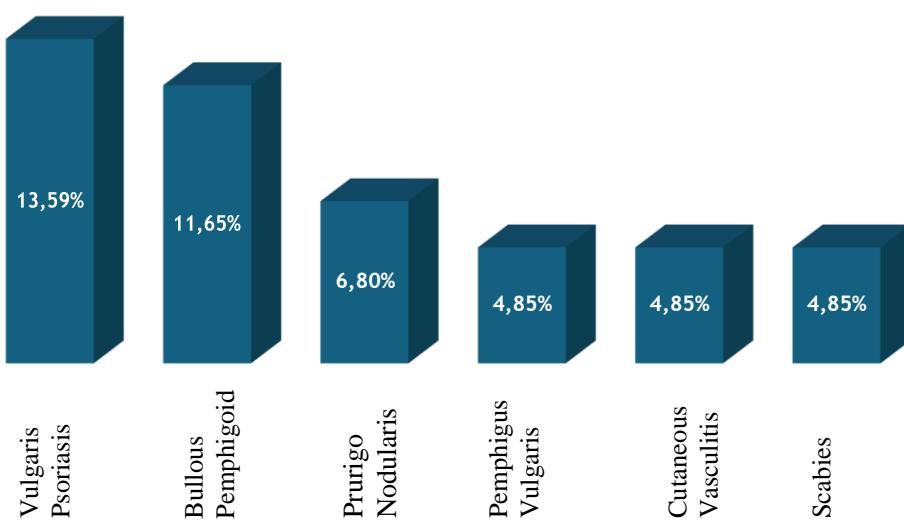
Dermatological diseases	Total (N)	Percentage (%)
ULCUS TROPHICUS	2	1.94%
INFECTIONS (2)		
Impetigo	1	0.97%
Tinea Corporis	1	0.97%
INFESTATIONS (5)		
Scabies	5	4.85%
ECZEMATOUS DERMATITIS (15)		
Chronic eczema	4	3.88%
Generalized eczema	3	2.91%
Contact dermatitis	4	3.88%
Nummular eczema	1	0.97%
Anular eczema	1	0.97%
Stasis dermatitis	1	0.97%
Psoriasisform eczema	1	0.97%
CUTANEOUS NEOPLASMS (14)		
Basal cell carcinoma	4	3.88%
Cutaneous lymphoma	2	1.94%
Mycosis fungoides	2	1.94%
Kaposi sarcoma	2	1.94%
Squamous cell carcinoma	1	0.97%
Ceratoacanthoma	1	0.97%
Sezary syndrome	1	0.97%
Erythroplasia Queyrat	1	0.97%
IMMUNOLOGICAL (18)		
Bullous pemphigoid	12	11.65%
Pemphigus vulgaris	5	4.85%
Pemphigus vegetans	1	0.97%
PSORIASIS VULGARIS	14	13.59%
PSYCHODERMATOSES (8)		
Prurigo Nodularis	7	6.80%
Lichen Simplex Chronicum	1	0.97%
LEUKOCYTOCLASTIC VASCULITIS	5	4.85%
MORPHEA	3	2.91%
ROSACEA	2	1.94%

TE TJERA (15)			
Parapsoriasis	2	1.94%	
s Lichen	2	1.94%	
Planus	1	0.97%	
Lichen	1	0.97%	
Scleroatrophicus	1	0.97%	
Lichen Planopilaris	1	0.97%	
Aphtous stomatitis	1	0.97%	
Anular granuloma	1	0.97%	
Pityriasis Rosea	1	0.97%	
Polymorphous Light	1	0.97%	
EruptionPhotodermatitis	1	0.97%	
Discoid Lupus	1	0.97%	
Glandular	1	0.97%	
hyperplasia	1	0.97%	
Necrobiosis	1	0.97%	
Lipoidica	1	0.97%	
Sarcoidosis Cutis			

Most Common Dermatological Diseases in Geriatric Patients

Among the 103 patients in the study, six dermatologic diseases were found to be the most common among the cohort. The most prevalent condition was vulgar psoriasis, affecting 13.59% of patients, followed by bullous pemphigoid at 11.65%. another frequent condition wasprurigo nodularis, present in 6.80% of the patients. In addition, vulgar pemphigus, leukocytoclastic vasculitis, and scabies were each identified in 4.85% of the patients, with theseconditions having equal frequency in the studied population.

MOST COMMON DERMATOLOGICAL DISEASES



Discussion

The clinical study reveals a higher prevalence of dermatological conditions in male patients

(58%) compared to females (42%). A study conducted by Leena R et al. [8] examined 200 patients aged between 65 and 85 years. Of these, 142 (72%) were male and 58 (29%) were female. This result suggests that men are more prone to developing dermatological diseases in this age group.

The most affected age group is 66-70 years (37%), followed by 60-65 years (31%). In the study by Agarwal R et al. [9], most patients were in the 60-69 age group (342 cases), which accounted for 68.4%. This age distribution suggests a significant burden of skin diseases in the early elderly population, likely due to cumulative sun exposure, reduced immune function, and other age-related skin changes.

A high percentage of retirees (71%) reflects the expected professional status in this age group, with a smaller proportion of active individuals (12%) and those receiving economic aid (9%). Seventy-seven percent of the patients had comorbid conditions, with hypertension (30%) and diabetes mellitus (10%) being the most common. The coexistence of hypertension and diabetes mellitus in 19% of patients highlights the need for integrated care treatments to manage these chronic diseases alongside dermatological conditions. The presence of other comorbidities, such as chronic kidney disease, prostatic hypertrophy, and psychiatric disorders, further complicates the clinical picture and underscores the necessity of comprehensive medical evaluations for geriatric patients.

In their study, Polat M et al. [10] observed hypertension (29.58%), diabetes mellitus (19.6%), and heart diseases (15.41%) as the most prevalent systemic diseases among patients. Mponda K et al. [11] noted that the most common associated systemic disease was hypertension (30%) and diabetes (7%).

In this study, pruritus emerged as the most frequent complaint, affecting 79% of the patients. Patange & Fernandez [12] also observed pruritus in 78.5% of their patients. Leena E et al. [109] reported pruritus in 44% of subjects. Polat M et al. [10] observed pruritus in 51.8% of elderly cases, while Mponda K et al. [11] reported pruritus in 61% of cases. This high prevalence indicates that pruritus is a significant concern among the elderly, potentially affecting their quality of life and leading to secondary skin lesions due to scratching. The fact that 42% of patients experience pruritus without other symptoms suggests that it is often a primary condition and not a symptom of an underlying issue.

The study identifies several common dermatological conditions in the geriatric population. Immunological diseases (17%) – with bullous pemphigoid making up 11.65%, vulgar pemphigus 4.85%, and pemphigus vegetans 0.97% – are the most widespread. In contrast, in the study by Kandwal M et al. [13], immunological disorders accounted for only 4% of geriatric dermatoses (2% bullous pemphigoid, 0.8% vulgar pemphigus, 0.6% herpetiform dermatitis, and 1 case of paraneoplastic pemphigus).

Immunological diseases are followed by eczematous dermatitis, which was seen in 15% of patients. In the study by Mponda K et al. [11], the eczematous disorders group (43.7%) was the primary category of diseases. Vulgar psoriasis was observed in 13.59% of patients. In Kandwal M et al.'s study [13], 11 patients (9.4%) had psoriasis out of 117 patients.

Psychodermatoses were present in 8% of patients, with prurigo nodularis (6.80%) and lichen simplex chronicus (0.97%) being the most common. Compared to this study, Patange & Fernandez [12] (12%) and Leena R et al. [109] (10%) observed a higher incidence of Lichen Simplex Chronicus.

The incidence of scabies in this study was 4.85%. Polat M et al. [10] observed a prevalence of scabies at 1.3%, while Leena R et al. [8] reported a prevalence of 3%.

Cutaneous vasculitis (leukocytoclastic) was seen in 4.85% of cases. In the study by Kandwal M et al. [13], cutaneous vasculitis accounted for 2.6% of cases.

Cutaneous neoplasms comprised 14% of patients, with basal cell carcinoma being the most



common, present in 4 cases (3.88%). Mycosis fungoides, Kaposi's sarcoma, and cutaneous lymphoma were present in 2 patients each (1.94%), while squamous cell carcinoma, Sezary syndrome, Queyrat erythroplasia, and keratoacanthoma were present in 1 patient each (0.97%). Polat M et al. [10] reported a prevalence of cutaneous neoplasms of 9.6%, which is close to the present study's findings. However, Patange & Fernandez [12] and Leena R et al. [8] did not report any cutaneous neoplasms in their studies. The higher prevalence in Western studies and lower prevalence in Eastern studies may be attributed to skin type. The diagnosis of neoplasms, including basal cell carcinoma and cutaneous lymphoma, highlights the importance of regular skin examinations in the elderly for early detection of malignant tumors.

Other diseases included lichen planus in 2 patients, parapsoriasis in 2 patients (1.94%), and lichen planopilaris, lichen scleroatrophic, aphthous stomatitis, granuloma annulare, pityriasis rosea, polymorphous light eruption, photodermatitis, discoid lupus, glandular hyperplasia, necrobiosis lipoidica, and cutaneous sarcoidosis, each present in 1 patient (0.97%).

The findings of this study emphasize the need for specialized dermatological care for geriatric patients. The high prevalence of comorbidities and complex dermatological conditions require a multidisciplinary approach to treatment, including dermatologists, primary care physicians, and other specialists. The integration of patient education programs to increase treatment adherence and self-care practices also plays a crucial role in managing chronic skin diseases in geriatric patients.

Conclusions

This study offers a comprehensive overview of the dermatological health of geriatric patients at the University Hospital Centre "Mother Teresa" in Tirana, where:

- The majority of patients are male (58%) and aged between 66-70 years (37%).
- Most patients are retirees (71%).
- Seventy-seven percent of patients have comorbid conditions, with hypertension (30%) and diabetes mellitus (10%) being the most common.
- Pruritus is the most frequent complaint (79%), followed by pain (12%) and asymptomatic lesions (10%).
- The presence of comorbidities, particularly hypertension and diabetes, often worsens the severity and complexity of dermatological conditions, necessitating tailored treatment plans.
- Autoimmune diseases and skin neoplasms are prevalent and require regular monitoring and early intervention.
- A significant correlation is observed between pruritus and the presence of major dermatological diseases such as psoriasis and eczema.
- The study highlighted a consistency in most cases between the initial clinical diagnoses and the final diagnoses.
- The specialized healthcare needs of geriatric patients include comprehensive management of their dermatological conditions and comorbid diseases.
- The study emphasized the importance of tailored healthcare services to address the unique needs of the elderly population, including more frequent monitoring and multidisciplinary approaches to treatment.

This study underscores the complexity of managing dermatological diseases in geriatric patients, particularly in the presence of multiple comorbidities. The findings highlight the need for specialized healthcare services that can offer comprehensive care tailored to the unique needs of elderly patients. The study also underscores the importance of accurate diagnosis and the adaptation of treatment protocols to effectively manage common dermatological conditions, considering the impact of comorbidities. These findings can inform future healthcare strategies

and improve the quality of care for geriatric patients with dermatological diseases.

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