

FREQUENCY OF CUTANEOUS DISEASES IN GERIATRIC POPULATION OF TYPE IV AND V SKIN

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ABSTRACT

Objectives: To determine the frequency of common cutaneous diseases in geriatric population of type IV and V skin.

Methodology: This Cross-sectional Survey was conducted at Skin outdoor department in Mayo Hospital, Lahore. Two hundred and seventy patients of either sex aged sixty years and above were included in the study. Frequency of common dermatoses was noted. The data were analyzed according to age, sex and skin type

Result: Two hundred and seventy patients were included in the study. The mean age of the patients in the study was 66.85 (± 8.1 ; range 60-105) years. Eczemas were found in (40%) of geriatric population, scabies (25.2%), fungal infection (14.8%), pruritus (9.6%), viral (8.1%) and bacterial (2.2%) infections. Regarding miscellaneous diseases, significantly greater number of patients aged 80 years or more were diagnosed to have malignant skin disorders.

Conclusion: Eczemas were the most common dermatoses. Scabies was more prevalent in females as compared to males. The chances of skin cancer like BCC increases as the age advances.

Keywords: Geriatrics, Dermatoses, Type IV and V skin.

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INTRODUCTION

The geriatric population is composed of persons aged 60 years and above. Statistical projections indicate that the elderly people (over 60 years of age) will constitute more than one quarter to one third of the population in the western countries by the year 2025^{1,2}. Ageing is an irreversible and continuous process which affects all organs of the body, including skin³.

The functions of the skin such as cell

replacement capability, physical, chemical, mechanical, microbial and thermal barrier, excretion of waste products, perception, immunomodulation, wound healing, sebum and sweat production, vitamin D synthesis, and capacity to repair deoxyribonucleotide (DNA), decreases with aging⁴.

As age increases, patients experience more illnesses and this applies in particular to skin as well⁵. The frequency of some diseases change with advancing age. In a study conducted by Yalcin et al, the common cutaneous disorders found in the elderly were eczemas (20.4%), fungal infections (15.8%), pruritus (11.5%), bacterial infections (7.3%), and viral infections (6.7%)⁶.

According to Pakistan Demographic Survey, 6.3% of the population in our country is ≥ 60 years⁷. The review of literature shows that although studies have been conducted in children and general population⁸, no such study has been carried out in geriatric population. It is important to recognize various presentations of skin diseases in elderly patients⁹.

The provision of specialized services for persons aged 60 years and above is still lacking in our country¹⁰. This study is designed to highlight the most common cutaneous diseases in our

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geriatric population of type IV and V skin so that they get special consideration in terms of proper referral and management. This will have a significant impact in improving quality of life and decreasing the economic burden on the community as a whole.

METHODOLOGY

Two seventy geriatrics patients presented to skin outdoor of both unit I and II, Mayo Hospital, Lahore from December 2008 to June 2009, were included in the study. Sampling was non probability purposive. cross sectional survey.

Patients aged 60 years and above belonging to either sex with skin type IV or V presenting in outdoor were included in the study.

Diagnosis of cutaneous diseases was made on history and clinical basis.

The cutaneous diseases which were looked for included eczematous dermatitis, fungal infections, pruritus, bacterial infections and viral infections. Some other diseases like scabies, photoaging, immunobullous diseases, Lichen planus, Psoriasis, Cutaneous ulcer, cutaneous lymphomas, benign and malignant neoplasia were also be noted.

Patients having any systemic disease such as diabetes, chronic liver disease, thyroid dysfunction and chronic renal failure were excluded on the basis of history, examination and previous investigations.

Any cutaneous diseases with onset before 60 years of age were excluded on basis of history, examination and previous investigations.

They were explained the purpose of the study and an informed consent was taken. Demographic characteristics like age, sex, address were recorded. Detailed history and clinical examination was performed.

All the calculations were done on SPSS (Statistical Package for Social Sciences) Version 16.0 Descriptive statistics were calculated.

RESULTS

Two hundred and seventy patients were included in the study. Male and female ratio and skin types of patients are calculated.

The mean age of the patients in the study was 66.85 (± 8.1 ; range 60-105) years. The mean age of the males was 68.01 (± 8.3 ; range 60-105), while the mean age of females was 65.40 (± 7.7 ; range 60-101) years.

Common diseases in decreasing order of

frequency, in all age groups and in both sexes were, eczematous dermatitis having 108 (40%) patients, fungal infections in 40 (14.8%) cases, pruritus was seen in 26 (9.6%) patients, viral infection in 22 (8.1%) cases and bacterial infection in 6 (2.2%) patients. Sixty eight (25.2%) cases comprises of scabies.

For the purpose of comparison, the patients were divided into three age groups: group 1 included 159 patients aged 60-69 years; group 2 had 82 patients aged 70-79 years and group 3 was composed of 29 patients aged 80 years and above.

The most common problem in all age groups was eczematous dermatitis which included contact dermatitis in 44 (40.7%) cases, seborrheic dermatitis in 20 (18.5%) patients, dyshidrotic eczema in 20 (18.5%) cases, discoid eczema in 15 (14.8%) patients and atopic dermatitis in 9 (7.4%) patients. Amongst the miscellaneous diseases, scabies was the most common.

In group 1 eczematous dermatitis were followed by fungal infections, of which onychomycosis in 12 (30%) cases, tinea corporis in 10 (25%) patients, tinea pedis in 8 (20%) patients, candidiasis in 5 (12.5%) cases and tinea versicolor in 5 (12.5%) cases. Next in order of frequency were viral infections, which consists of herpes zoster in 18 (81.8%) cases and viral warts seen in 4 (18.2) patients, the pruritus and bacterial infections, of which cellulitis in 3 (50%) cases, furunculosis in 2 (33.3%) patients and carbuncle in 1 (16.6%) patient seen.

In group 2, eczema was the most common, followed by scabies, then fungal infections, viral infections and bacterial infections were the next common. Group 3 had same frequencies for pruritis, fungal and viral infections, with no patient of bacterial infection $(p=0.03)$. The percentages of the diseases with respect to age groups are displayed in Table 1.

Females had relatively higher frequency of miscellaneous disorders, while males had eczema as the most frequent disease, followed by miscellaneous disorders $(p<0.01)$. Apart from the eczema and miscellaneous disorders, the most frequent diseases were fungal infections, viral infections, and pruritus in females, and pruritus, fungal infections and viral infections in males (Table 2). None of the female patients had bacterial infections, while 6 male patients were reported having bacterial infections.

There was difference in the frequency of the diseases regarding the skin type and the order of frequency of all diseases was the same in both.

Regarding miscellaneous diseases, significantly greater number of patients aged 80

Table 1: Percentage of Diseases within Age Groups

Age group	Diseases						Total
	Bacterial	Eczema	Fungal	Others	Pruritis	Viral	
60-69	2.5%	40.3%	15.7%	25.8%	5.0%	10.7%	100.0%
70-79	2.4%	37.8%	15.9%	20.7%	19.5%	3.7%	100.0%
80 and above	.0%	44.8%	6.9%	34.5%	6.9%	6.9%	100.0%

Table 2: Frequency and Percentage of Diseases within Sex

	Diseases						Total
	Bacterial	Eczema	Fungal	Others	Pruritis	Viral	
Female	0	39	24	45	6	10	124
	0%	31.5%	19.4%	36.3%	4.8%	8.1%	100.0%
Male	6	69	16	23	20	12	146
	4.1%	47.3%	11.0%	15.8%	13.7%	8.2%	100.0%

years or more were diagnosed to have malignant skin disorders. It was found in 3 patients (10.3%) with a p value being ($p < 0.01$). None of the patients in the other two groups had any malignancy. Scabies showed an increasing frequency in the group I and group 2 as compared to group 3, with 41 (65%) in group 1, 16 (25%) in group 2 and 6 (10%) in group 3.

Scabies was more common in female with skin type IV having 27 (30%) cases as compared to skin type V where 15 (45%) ($p = 0.01$) cases.

In males the frequency was reversed more patients with skin type V presenting with scabies 14 (20%) versus skin type IV where 7 (10%) ($p = 0.01$).

Similarly all types of infections i.e. fungal, viral and bacterial infections decreased in frequency as the age advanced ($p = 0.03$). Pruritus, was seen more in the aged group between 70- 79 years.

DISCUSSION

This is the first study of its kind conducted in Pakistan. Similar studies on larger scales have been carried out in Western countries and therefore the statistics could only be compared with an international study.

Our results showed that the most common disease in all geriatric age groups was eczema. This is in accordance with the Turkish study done

by Yalcin et al⁶, in which eczema was found to be the most common disease. Also the decreasing trend of this disease observed over age is also similar to the international study⁶. This decrease in the frequency of eczema appears to be related to decreased exposure of the more elderly population to the environmental toxins and impurities, since they are home bound in most of the cases with advanced aged.

Scabies was found to be the most common disease in the miscellaneous disorders, and showed an increasing frequency as the age advanced.

Elderly individuals have an increased susceptibility to skin infections due to age-related anatomical, physiological and environmental factors. In the elderly, these infections and infestations may present with atypical signs and symptoms or may complicate underlying chronic skin disorders¹¹. In comparison, Yalcin et al, had infestation in only 4% of the cases. Less number of cases may be due to better standard of living in a community, which shows more healthy environment and western trend.

Our study also showed a decreased frequency of infections as the age advanced. Though immunity is more compromised in the elderly people, this decrease in infections may be due to decreased exposure to community and environmental toxins because most of the elderly patients are home bound.

The increased frequency of malignancy in patients aged 80 and above is testimony to the decreased immune surveillance in the elderly. Cumulative sun exposure, accumulated environmental toxins over time with decreased reparative mechanisms may also be responsible for increased malignancy in the elderly age group¹².

Pruritus increased in frequency in aged 70 to 79 years, only slightly decreased in aged 80 years and above. One possible reason could be the enhanced drying of the skin observed with advancing age, owing to the atrophy of the sebaceous glands.

The decrease in the frequency of pruritus in patients aged 80 years and above might be due to masking of the symptom by other more frequent disorder such as malignancy. It may be related to compromise sensory system with advanced age.

Since this study was conducted within a limited time period and with fewer subjects than the international studies, more studies of the same kind are needed in our population to establish a proper data base for the skin disorders in the elderly population.

CONCLUSION

Eczemas were the most common dermatoses. Scabies was more prevalent in females as compared to males. The chances of skin cancer like BCC increases as the age advances.

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None Declared

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CONTRIBUTORS

KK conceived the idea, I did the data collection, MMP and SA did the statistical analysis, and SSP supervised the study and reviewed the article.