



## INCIDENCE AND CLINICAL STUDY OF DERMATOLOGICAL DISEASES IN ELDERLY (GERIATRIC) PATIENTS

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### ABSTRACT

Geriatric dermatoses are one of the most frequent reasons for familiar consultation in the elderly. Over the past few years, sympathetic of the pathophysiology of skin changes in the geriatric age group has enhanced and has lined the way for better therapeutic options. There are only a hardly any studies conducted in India about the geriatric dermatoses. This article reviews Incidence and clinical study of dermatological diseases in elderly (geriatric) patients in the various physiological and pathological changes of aging. This is a cross-sectional observational study carried out on 250 consecutive patients aged 60 years and above in Department of Dermatology of a Tertiary care hospital of Sri Lakshmi Narayana Institute of Medical sciences and Sree Balaji Medical College & Hospital after meeting the inclusion and exclusion criteria. Out of 250 patients studied with male to female ratio of 1.3, in the study out of which 52.8% were male and 42.7 % were female. Pruritis was the ordinary complain elicited in 68.5 % of patients. Among the physiological changes xerosis was the recurrent seen in 52 % of patients and infecions followed by eczems was the widespread pathological conditions. The majority of these geriatric skin diseases are preventable. Raising the general level of awareness is important about these regular geriatric dermatoses. Additional epidemiological studies are required to expose the prevalence of geriatric skin diseases.

**Key words:** Geriatric dermatoses, Eczema, Psoriasis and Cutaneous malignancy.

### INTRODUCTION

In the mainly countries of the world, the ratio of people of over 60 years old is developing faster than any other age group: this fact is going on because of each longer existence expectancy and additionally of what we are able to decide because the declining fertility costs. This common people growing older may be seen as a success tale for public fitness regulations and for socio-economic development; then again, it additionally demands situations society to adapt, as a way to maximize the fitness and useful potential of older humans. [1]

The sicknesses of the elderly are commonly because of getting old and the sluggish decline in physical hobby and organ characteristic. [2] Dermatology is

required to discover skin diseases in this organization of patients as those are on the whole the end result of the internal organ pathology. This age assembly of patients has some peculiarities in comparison to other sufferers. One of them is the phenomenon of polypharmacy. [3] Taking combination therapies for various ailments can increase the incidence of skin facet consequences, possibly due to age-associated decreased kidney and liver feature. Most of the half-aged humans over eighty five are frail with problems of their daily recurring and dependent on a caregiver for day by day sports, including dressing, non-public hygiene or outside activities including touring. Here is a reduction in bulk of dermis and accumulation of a brown colored

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pigment such as lipofuscin, which is a marker of cell damage. With the increase in life expectancy, diseases among the elderly population are becoming increasingly common. [4] Trivial dermatoses such pruritus, eczema, xerosis may occurs generally in skin aging patients. However, many dermatological situations are fatal like pores and skin malignancy and lead to good sized morbidity and impairment of quality of existencelife. [5]

In India, there were 72 million aged humans above 60 years of age as of 2001 and this wide variety is possibly to boom to 179 in 2031. [6] Hence geriatric populace is an increasing section of Indian population and has come to be a global concern. It is thereby vital that powerful fitness care is supplied to those sufferers in terms of health offerings. This take a look at gives an insight into unique types of dermatological troubles of the elderly, their prevalence, the different factors contributing to it and the affiliation with systemic diseases. [7] The finest assignment confronted even as evaluating the skin of a vintage man or woman is to determine between everyday versus ordinary and physiological as opposed to pathological. Many pores and skin adjustments and resulting lesions are considered regular, except that they range in diploma and wide variety. [8] The present examine aimed to Incidence and clinical have a look at of dermatological illnesses in elderly (geriatric) patients

## MATERIAL AND METHODS

A cross-sectional examine became accomplished in 250 consenting elderly sufferers who attended the dermatology outpatients Department of Dermatology of a Tertiary care hospital of Sri Lakshmi Narayana Institute of Medical sciences and Sree Balaji Medical College & Hospital, each females and men aged 60 years and above have been blanketed within the study. All patients were residing with their households. Detailed records to presenting infection, private records, and presence of clinical, surgical, congenital diseases had been elicited. All sufferers have been subjected to a thorough dermatological examination; such as pores and skin, hair, nails, hands, soles and mucous membranes. Appropriate assessments inclusive of wood's lamp examination, KOH examination of skin scrapings, hairs or nails, were finished each time indicated. The diagnosis of cutaneous lesions was primarily based on its medical functions, and additionally at the histological examination of skin biopsy when the simple morphological commentary was no longer sufficient to accomplish the diagnosis and additionally investigations as hematology, biochemistry. Signed consent changed into obtained from all patients after explaining the character of the examiner to them. The study has been duly accredited by using the Hospital Ethics Committee.

Data were analyzed using statistical package for social science (SPSS) version 22.0. Results are presented

as mean} standard deviations for continuous variables and as a number (%) for categorical variables. Cross-tabulation tables were used between two variables and inferential statistics were applied (chi-square test  $\chi^2$ ). Differences were considered as statistically significant with P values  $\leq 0.05$ .

## RESULTS

The present study results analysed total 250 patients above the age 60 yrs were studied of which 132(52.8%) were male and 118 (47.2%) were females . Maximum number of patients 182(74.4 %) belong to the age group of 60-69 years. The male to female ratio was3.1:1 ratio

Along with systemic diseases, diabetes mellitus (65.4%). was found to have the highest incidence followed by hypertension (58.0%) three male patient was found to have a thyroid disorder (0.3%) as against 29 females (11.6%) with a significant “p” value of < 0.001.

The predominant complaint was out of 149 patients' itch (41.6%), followed by 'rash' (36.9 %), dry skin (7%), pain (7 %), lump on their skin (3%) ulcer (4 %) and blisters (1 %) and lump on their skin and Other complaints included pigmentary changes and their skin appearance being an embarrassment 88 patients there were no clear complaints.

Amongst the Xerosis one of the most common physiological Cutaneous manifestation seen in our study showed systemic diseases which is followed Seborrheic keratosis (46%).Wrinkles (97.8%) were the most common physiological Cutaneous manifestation seen in our study followed by Senile purpura (26%).

A broad spectrum of diseases was seen. In present study results eczematous disorders (30%) was the foremost disease group. The most recurrent types of eczemas were: unclassified (16.8) followed by eczema (33.9 %), atopic eczema (4%), xerotic eczema (1.6%), stasis eczema (0.8%), nummular eczema (1.2%), seborrhoeic eczema (3.2%) and contact eczema (2.8 %). The second most regular group of disorders was of papulosquamous disorders (16%) in which psoriasis (8%), lichen planus (3.2%) and keratodermas (4.2 %) were most frequent in present study.

The infections group made up 11.3 % of all diseases and was distributed as follows: fungal infections (16.9%), bacterial infections (15.4%) and viral infections (10.4%). Our study showed fungal infections subgroup was distributed as follows: Dermatophytes (10.8%) and onychomycosis (6%).Viral infections subgroup was distributed as follows: herpes zoster (6%), viral exanthem (4.4 %). Bacterial infection subgroup was distributed as follows: pyoderma (7.2), cellulitis (4.4%) and leprosy (3.7%).Among miscellaneous conditions were Vascular disorders (6%), Autoimmune disorders (3.7%),Urticaria (1.2%)and Drug reactions(0.8%) were found in this study.

**Table 1: Presenting complaints incidence of the reported complaints**

Presenting complains	Incidence
Itch	62
Rash	55
Drying	10
pain	10
lump	4
ulcer	4
blistering	1
swelling	3

**Table 2: Physiological changes in geriatric patients**

S.No	Physiological changes	Male	%	Female	%	Total	percentage
1	Wrinkles	12	9.0%	9	7.6%	21	8.4%
2	Xerosis	69	52.2%	55	46.6%	124	49.6%
3	Idiopathic guttate hypomelanosis	3	2.2%	7	8.4%	10	4%
4	Senile purpura	10	7.5%	16	13.5%	26	10.4%
5	Fissured soles	7	5.3%	5	3.7%	12	4.8%
6	Favre - racouchot syndrome	6	4.5%	5	4.2%	11	4.4%
7	Seborrheic keratosis	25	18.9%	21	15.9%	46	18.4%
	Total	132		118		250	100.00

**Table 3: Distribution of cutaneous diseases in geriatric patients**

S.No	Condition	No of cases	%
1	<b>Infection and infestation</b>		
a	<b>Fungal</b>	<b>42</b>	16.9
	Dermatophytes	27	10.8
	Onycho mycosis	15	6
b	<b>virus</b>	26	10.4
	Herpes zoster	15	6
	Viral exanthem	11	4.4
c	<b>Bacteria</b>	38	15.4
	pyoderma	18	7.2
d	cellulitis	11	4.4
	leprosy	9	3.7
2	<b>Eczema</b>	<b>75</b>	30
	Unclassified eczema	42	16.8
	Seborrhoeic dermatitis	8	3.2
	Xerotic eczema	4	1.6
	Stasis dermitis	2	0.8
	Atopic dermtitis	10	4
	Nummular eczema	3	1.2
	Contact dermatitis	7	2.8
3	<b>Papulosquamous disorders</b>	<b>40</b>	16
	Psoriasis	20	8
	Lichen Planus	8	3.2
	Keratoderma	12	4.8
4	<b>Vascular disorders</b>	<b>15</b>	6
	Chronic venous insufficiency disorders	1	0.4
	Hemangioma	1	0.4
	Lymphedema	9	3.7
	Vasculitis	3	1.2
5	<b>Autoimmune disorders</b>	<b>9</b>	3.7

	Connective tissue disorders	5	2
	Blistering diseases	4	1.6
6	others	5	2

**DISCUSSION**

In present study, Aging skin undertake revolutionary degenerative structural and physiological changes that arise as a natural result of intrinsic aging, blended with the outcomes of an entire life of ongoing cumulative extrinsic damage and environmental insult. However, overexposure to solar radiation can also produce a marked susceptibility to dermatological disorders in the aged. [9] Inflammatory dermatosis is incredibly regularly stated in aged, despite the fact that they are not deadly diseases they convey high morbidity and significantly lower the excellent of existence of the aged. [10]

A total of 250 patients age 60 yrs and above were examined over a period of nine months of which males outnumbered females ratio 1:3.1. which is correlated with other studies Thapa DP et.al. [11] and Raveendra L [12] Maximum no of patients are in age group 60-69 yrs (74.4%) which was similar to Sheethal MP et al study [13]. The oldest patient was 80 yrs old.

The prevalence of itch (62%) was higher than that commonly reported in our study which is correlated with Beauregard S et al [14]. Xerosis was detected in over half of the study patients of whom only 1/10 gave a history of dry skin 49.5 in this study compared with other study 60.6 % Immobilized status in geriatric populations has been reported to contribute to significant decrease in the general stratum corneum water content [15].

In current study co-morbid conditions likes Diabetes Mellitus had the main prevalence of about 65.4%.It is also observed in Sahoo Aet al, studies. [16] Hypertension 58.0% is the second most general systemic diseases seen in our study but other studies it had showed that highest incidence in Grover S, et al [17] In present study coronary artery diseases cases were seen in 15% of geriatric population. This higher frequency is not observed in any study showing the increasing trend of heart diseases in older age group.

With fungal disorder were mainly represented by Dermatophytes (10.8%) and Onycho mycosis (6%) were our study comparable with talukdar et al [18] (7.2%). Viral infection 26(10.4 %) were the next regular infection followed by bacterial 38(15.4%) correlated with Pavithra S,et al. [19]

In our study 75(30%) patients were found have eczema comparable with Liao YH, et al [20] (24.2%). Here Endogenous eczema found to have higher incidence (16.8%) compare to exogenous eczema (4%) That is may be because of aged organization of patient in particular stay the indoor and no longer exposed to outside surroundings. Among the Endogenous eczema had the nummular eczema had the best prevalence with (4%) and In exogenous eczema touch dermatitis was determined. These findings are comparable with kshetrimayum S et al [21] with 6% and 4.8% prevalence respectively. Improper hygiene and decrease immunity are the precipitating elements for endogenous eczema. Moreover excessive hot climate, use of harsh soaps and lack of use of emollients worsen the circumstance.

A total of 40 patients were found to have connective tissue disorder in our study, 12 (4.8%) cases of systemic Keratoderma, 8(3.2%) cases of lupus erythematosus compared by Sanjiv Grover, [22] a total of 7 cases were reported, which were 3.5% of the total population. The prevalence of Psoriasis in the present study is 8%. In study by Goyal A, et al. [23]

In current observation, pigmentary sickness were determined in 5(2%) sufferers of examined populace out of which idiopathic guttate hypomelanosis was the most typical visible in 3caseswith comparable results Sahoo et al., [24]

**CONCLUSION**

Structural and physiological modifications in aged pores and skin can produce marked susceptibility to dermatological disorders. Inflammatory dermatitis is the maximum accepted pores and skin diseases inside the elderly and eczema is the essential dermatitis. Moreover, fungal infections are a routine aggravate visible in the aged. These observe has a few limitations; the small size and number of patients blanketed, also the records collected from the outpatient department without a facility for proper research. More epidemiologic studies concerning the dermatological diseases within the elderly population are wished.

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