



Original Research Article

Study of geriatric dermatoses from a tertiary care teaching hospital of northern India

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ABSTRACT

Introduction: Elderly population is susceptible to many cutaneous diseases, simultaneously leading to impairment of quality of life in them.**Aim:** To determine the clinical pattern of various dermatological disorders and their burden in the elderly population.**Materials and Methods:** This study was conducted on one hundred and four patients aged more than 60 years of age attending the outpatient clinic. History regarding cutaneous complaints, present and past medical ailments was captured. After that complete general physical and systemic examination was carried out. Detailed dermatological examination was done. Relevant investigations were carried out.**Results:** Seborrheic Keratosis was the most common (54.8%) benign condition seen among study subjects. Infection and Infestation was seen in 29.8% subjects. Eczema was reported in 24% elderly. Papulosquamous skin disorders were observed in 7.7%. Vesicobullous disorder and pigmentary disorder were seen in 1.9% subjects each. Pruritus was the commonest complaint observed. Thirty four percent subjects were suffering from diabetes whereas 22.1% had hypertension. Guttate hypomelanosis was seen in 63.5%. Senile lentigens and comedones were seen in 54.8% and 39.4% subjects respectively.**Conclusion:** Dermatological problems are quite common in geriatric population. We noted various kinds of pathological and atypical changes in the skin of studied people. Early detection and management of such lesions are crucial.

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1. Introduction

Someone has rightly said that 'old age is an incurable disease'. As per quote made by Sir Sterling Ross "You do not heal old age. You protect it; you promote it; you extend it".¹ Our country realised the need of having a nation wide policy for elderly in 1990's and came up with 'National Policy on Older Persons' in 1999. This policy defines 'senior citizen' or 'elderly' as a person who is of age 60 years or above.² Population of our country is second largest in the world. Population of persons aged 60 or more was 72 million in 2001 which is projected to touch 179 million in year 2031 and shoot up to 301 million by year 2051.³

Geriatric health care has been considered as an emerging issue due to increase in life expectancy. Cutaneous lesions are more common among the elderly due to ageing, which causes a decline in dermatologic integrity and function.⁴ As per the projections of geriatric population growth, our future generations will witness transformation of geriatric issue becoming as a major international issue.⁵ Elderly people are predisposed to certain dermatological disorders because of various senile changes in the skin which occur as a result of the combination of cumulative Intrinsic and Extrinsic ageing.^{6,7}

Various studies have been conducted in different parts of India to understand the skin problems in geriatric population which have shown varying patterns. Not much data is available in literature from this geographical region.

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Keeping above facts in mind, we conducted this study with the aim of determining the clinical pattern of various dermatological disorders and their burden in this population.

2. Materials and Methods

This investigation was planned and carried out by Dermatology department of a medical college located at northern India. This was a hospital based prospective study involving one hundred and four patients aged more than 60 years of age. Both inpatients and outpatients types of subjects were involved.

Subjects were enquired about their problems and complaints related to skin in the form of chief complaints and elaborated history of present illness. A thorough enquiry was made about past history and medical/drug history. After fetching detailed history, a thorough physical and systemic examination was performed. Dermatological findings were noted after dermatological examination. All these details were noted systematically in a structured proforma. A few but relevant investigations were carried out like blood examination, urine examination, blood sugar examination along with certain set of biochemical investigations. In the investigations related to skin, skin scrapings were taken. Nail clipping was performed if fungus was suspected. Skin biopsy was taken wherever it was deemed necessary.

Data from study participants was obtained only after taking consent from them. Ethical issues involved in the study were reviewed by Ethics and Research Board of the medical college. Data collected in the proforma was entered in the excel sheet. Analysis of data was performed by the computer software Statistical Package for Social Sciences (SPSS), version 20 (IBM, Chicago, USA). Results were expressed after applying appropriate statistical tests and drawing conclusions.

3. Result

Majority of study participants (65.4%) were found to be aged 60-70 years whereas 19.2% people were 71-80 years old. Male subjects were more than females clearly in excess (73.1% vs 26.9%). 57.7% subjects were found to be illiterate. Most (96.2%) of participants were married. Occupation wise 59.6% were farmers (agriculturists) whereas 19.2% were housewives. (Table 1)

Pruritus was the commonest complaint (80 %) observed. Thirty four percent subjects were suffering from diabetes whereas 22.1% had hypertension. Of total, 10.6% each had COPD and diabetes - hypertension co-infection. 4.8% each had anaemia and tuberculosis. Xerosis was observed in a large number of subjects (88.5%). Guttate hypomelanosis was seen in 63.5%. Senile lentigens and comedones were seen in 54.8% and 39.4% subjects respectively. (Table 2)

Seborrheic Keratosis was the most common (54.8%) benign condition seen among study subjects. Infection and Infestation was seen in 29.8% subjects. Eczema was reported in 24% elderly. Papulosquamous skin disorders were observed in 7.7%. Vesicobullous disorder and pigmentary disorder were seen in 1.9% subjects each. (Table 3)

4. Discussion

In the present study, majority of study participants (65.4%) were found to be aged 60-70 years whereas 19.2% people were 71-80 years old. Male subjects were more than females clearly in excess (73.1% vs 26.9%). Findings of this study was quite similar to another study from by S Vidya Patange et al.⁸ that observed 63% males and 37% females out the 200 subjects but this finding was not in agreement with the observations made by Lane and Rockwood.⁹

Pruritus is a common dermatological problem of the elderly and the causes can be varied. Pruritus was the commonest complaint (80%) observed in our study. In the absence of skin lesions, underlying systemic illnesses, medications, nutritional status, occult malignancy and psychological factors should be paid due attention while dealing with a patient presenting with pruritus. It is a fact and common to see old age subjects atrophy in the skin that is the main factor for this pruritus.

Regarding physiological changes, we observed that xerosis was noted in a large number of subjects (88.5%). Guttate hypomelanosis was seen in 63.5%. Senile lentigens and comedones were seen in 54.8% and 39.4% subjects respectively. The findings of our study is comparable with findings of a study from Puducherry¹⁰ in which 93% of patients showed xerosis. A probable explanation can be given as, elderly people living in rural areas use hard soaps as soft soaps are less available in villages and they do not use emollients in general. More than 70% old age subjects were having wrinkles. Authors from other part of our country have reported prevalence of wrinkles as 88%¹⁰ and 99%¹¹ respectively.

Dermatoheliosis are the number of skin changes produced by chronic actinic damage, characterized clinically by the presence of wrinkling, irregular pigmentation, scaling, actinic keratosis, senile comedones, elastosis and malignancy. Senile comedones were observed in approximately 40% of geriatric cases. These results are cohort with two studies from Karnataka.^{12,13} Senile lentigens were seen in approximately 55% of study subjects in this investigations. Findings of this study are some what similar to another study from Karnataka.¹³

In this investigation, 63.5 % participants revealed idiopathic Guttate Hypomelanosis. Our findings confirm the results of another studies.^{5,12,13} Eczematous conditions were noted down in 24% cases in this study. Another

Table 1: Socio demographic profile of the study subjects

Variable		N	Percentage
Age (Years)	60-70	68	65.4
	71-80	20	19.2
	81-90	11	10.6
	>91	5	04.8
Gender	Male	76	73.1
	Female	28	26.9
Literacy status	Illiterate	60	57.7
	Literate	44	42.3
Marital status	Married	100	96.2
	Unmarried	3	02.9
	Divorced	1	0.96
Occupation	Farmer	62	59.6
	Retired	5	04.8
	Housewife	20	19.2
	Others	17	16.3

Table 2: Pattern of associated systemic diseases and physiological changes with cutaneous disorders among study subjects

Systemic diseases	N	Percentage
Diabetes	36	34.6
Hypertension	23	22.1
Diabetes and hypertension	11	10.6
COPD	11	10.6
Tuberculosis	5	04.8
Anaemia	5	04.8
BPH	4	03.8
HIV	1	0.96
Physiological changes		
Xerosis	92	88.5
Wrinkles	73	70.2
Guttate Hypomelanosis	66	63.5
Senile Lentigenes	57	54.8
Senile Comedones	41	39.4

Table 3: Profile and pattern of skin changes among study population

Changes in skin*		N	Percentage
Benign Tumours	Seborrheic Keratosis	57	54.8
	Angioma	44	42.3
	Dermatosis papulosanigra	38	36.5
	Achrochordons	31	29.8
Infection and Infestation		28	26.9
Eczema		25	24.0
Papulosquamous skin disorders		8	07.7
Vascular Disorders		7	06.7
Vesicobullous Disorder		2	01.9
Pigmentary Disorder		2	01.9

*Multiple responses permitted

study by Nair PA et al. is also in concordance with our observations.¹⁴

Diabetes was seen in approx 35% subjects which is quite comarable with other study by Radhakrishnan¹⁵ (36%). Differences may be there due to differences in lifestyle of people studied. Diabetes is known to cause metabolic derangements which lead to various kinds of skin infections apart from other softtisse problems. A diabetic elderly is prone to have various kinds of bacterial and fungal infections which adds to the morbidity and mortality among them. Candida infection in elderly should be seen with suspicion as it gives a clue for undiagnosed diabetes in a person. Infections are more common in those elderly who have glycemic control are poor. Pruritis is one of the most important marker of disbetes others being polyuria, polydipsia, and polyphagia. The reason behind the peuritis remains unclear but it could be due to dryness and infections.¹⁶

We observed that hypertension was quite commonly associated with study subjects in approximately 22% cases. But other studies showed that a quite higher (59%) number of elderly had associated hypertension, as seen by Radhakrishnan.¹⁵ Findings of Ivanov and Fedotov¹⁷ are in cohort with ours as almost one fourth of eczema subjects were discovered to have high blood pressure. It shows some relationship exist between the two conditions as both are related to problems in microcirculation in bed of the skin. Metabolic derangements as well as high blood pressure reduces the flow of the blood thus causing a lot of problems like xerosis and delayed wound healing. Broken epithelia allows entry of micro-organisms in blood through broken skin.¹⁸

In this study we observed that 54.8% of subjects were found to have seborrhoeic keratosis. Similar findings were obtained by Beaugard and Gilchrest¹⁹ and Raveendra L et al²⁰ in their investigations.

5. Conclusion

This study observed that dermatological problems are quite common in geriatric population. We noted various kinds of pathological and atypical changes in the skin of studied people. Early detection and management of such lesions are crucial. Health promotion and education must be tailored to reduce the risk.

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