

Skin diseases in elderly population from Eastern India- An observational study

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Abstract *Objective* To study the different skin diseases in geriatric population attending the dermatology outdoor of a tertiary care hospital in Eastern India.

Methods A 3-month observational study was done among 200 patients of age 60 years and above.

Results Among 200 patients most (61%) belonged to age group 60-69 year, mean age being 67.7 ± 6.08 year. The most common presenting and associated complaint was pruritus (74%). Eczematous conditions were the most common presenting disorder (39%), followed by infections (38%), pigmentary disorder (26%), papulosquamous (18%) and immunobullous disorders (5%).

Conclusion From our study we found that pruritus, asteatotic dermatitis, seborrheic dermatitis and fungal infections were the commonest skin problems.

Key words

Skin diseases, pruritus, eczema, infections, immunobullous disorders.

Introduction

With advancement of medical science the average human life expectancy has increased. The current geriatric population (aged above 60 years) in India as per the 2001 is 7.7% of total population. It is expected to rise to about 324 million by the year 2050.¹ Along with systemic problems, the elderly also suffer from different cutaneous diseases. This study aimed at studying the different skin diseases prevailing among the elderly population in Eastern India.

Methods

A total 200 patients above 60 years attending the

skin department of a tertiary hospital in Eastern India were studied from February to April 2016. Detailed history about presenting complaints and associated systemic problems were taken. A detailed drug history and past occupational history were also noted. General and cutaneous examination was done. Both physiological and pathological skin changes were noted. Relevant biochemical and radiological tests were done in appropriate cases. Histopathology and special staining were done wherever required.

Results

This was an observational study. We enrolled 200 patients of the age 60 years and above for a 3 month period from February to April 2016 in our study. The mean age of presentation was 67.7 ± 6.08 year. Most of the patients (61%) belonged to age group 60-69 year followed by 33% between 70-79 year and 6% were of 80 years and above. There were 110 males and 90

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females with male:female ratio was 1.2:1 (**Table 1**).

The most common presenting and associated complaint was pruritus and it was present in almost 74% of this population.

Eczematous condition were the most common presenting disorder (39%), followed by infection (38%), pigmentary disorders in 26%, papulosquamous in 18% and immunobullous disorders in 5% cases. Among the eczematous conditions asteatotic dermatitis (20%) was most common followed by seborrheic dermatitis (15%). Among papulosquamous disorders, psoriasis and lichen planus were the main entities found in 18 patients. Immunobullous disorders were found in 10 (5%) patients, six cases were of bullous pemphigoid and 4 of pemphigus vulgaris (**Table 2**).

Almost 38% of the patients, mainly females had some kind of skin infections (**Table 3**). Dermatophytic infection 26 (21.3%) and candidiasis were the commonest followed by pyoderma 16 (13%). Herpes zoster was present in almost 5% cases and herpes labialis in 2 cases. There were four patients with leprosy, 2 had borderline tuberculoid and other 2 had borderline lepromatous disease. We had one male patient suffering from tuberculosis verrucosa cutis, one patient with genital chancre. Among pigmentary disorders idiopathic guttate hypomelanosis (IGH) was the commonest (25%). There were also cases of vitiligo and melasma. Seborrheic keratosis was present among 35% patients. Among cutaneous malignancies we found 2 cases of basal cell carcinoma.

In oral mucosa, the commonest finding was loss of teeth observed in 90 (45%) individuals. Dental caries were found 88 (44%) patients followed by candidiasis 10 (5%) and lichen

planus 5 (2.5%) patients. Loss of teeth was more common in males (63) when compared to females (29). We also found 2 women with actinic cheilitis.

Nail involvement was seen with various patterns like roughening, onychomycosis, paronychia, subungual hyperkeratosis. Onychomycosis was common in females (58, 26.36%) when compared to males (44, 24.5%) and this difference was found to be statistically significant ($P=0.0015$, Fisher's test). But other nail findings like thinning, ridging, and loss of cuticle were more common in males when compared to females and this was statistically significant.

We had one patient with alopecia universalis. Androgenetic alopecia was found in 65 (32.5%) patients.

We found adverse drug reaction in 4 patients (2%). There were 2 cases of fixed drug eruption, one case of Steven-Johnson syndrome and one patient of idiosyncratic reaction to methotrexate. In our study there were 10 cases of erythroderma, one patient with cutaneous arsenicosis, one patient with dermatomyositis, 2 patients with Sweet's syndrome.

Other less common presentations were urticaria, miliaria, lichen planus pigmentosus.

Systemic comorbidities were observed in 34% of this population, 15% had diabetes mellitus and 27% had hypertension, some patients had both.

Discussion

Population ageing is an inevitable consequence of the demographic transition experienced by all the countries across the world. With declining fertility and increasing longevity, the proportion

Table 1 Demographic profile of geriatric patients (n=200).

	Males (n=110)	Females (n=90)	Total (n=200)
Mean age (years)	68.47±6.34	66.91±5.7	67.7± 6.08
Age groups (years)			
70-79	62	60	122
60-69	38	28	66
≥80	10	2	12
Residence			
Rrural:urban	64:46 (1.3:1)	52:38 (1.3:1)	116:84 (1.3:1)

Table 2 Disease spectrum of study population (n=200).

	Male (n=110)	Female (n=90)	Total (n=200)
Dermatitis	46 (41.9%)	32 (35.5%)	78 (39%)
Infection	34 (30.9%)	42 (47%)	76 (38%)
Pruritus	76 (69%)	72 (80%)	148 (79%)
Pigment	30 (27.2%)	22 (24.4)	52 (26%)
Papulosquamous	12 (10.9%)	6.7 (6%)	18 (9%)
Immunobullous disease	6 (5.4%)	4 (4.4%)	10 (5%)

Table 3 Cutaneous infections in elderly

Age group (years)	Fungal	Bacterial	Viral	Infestations
60-69 (n=122)	26 (21.3%)	16 (13%)	8 (6.5%)	6 (4%)
70-79 (n=66)	12 (18.18%)	2 (16.7%)	4 (6%)	0
≥ 80 (n=12)	2 (16.7%]	0	0	0

of elderly persons aged 60 years and above is increasing. The elderly suffer from numerous systemic illnesses. The skin diseases in elderly are also a cause of morbidity to them. Some of them may be associated with other systemic illness.

Our study population comprised of 200 patients of age 60 years and above. In our study there was male predominance (male: female = 1.2:1). This was in accordance with other studies^{2,3} and contrary to a study by Bearguard and Gilchrest.⁴ Most of the population belonged to age group 60-69 year (61%) followed by 33% between 70-79 year and 6% were 80 years and above. This was in accordance with a study by Grover *et al.*⁵

Pruritus was the commonest presenting complaint in our study group (79%). This was similar to the study by Patnge *et al.*⁶ There were only 20 cases of senile pruritus. Rest were pruritus due to dermatoses or systemic problems.

In this study patients mainly presented with dermatitis (39%) followed by infections (37%). This was contrary to the study by Sacar and Saçar⁷ but similar to a study by Liao *et al.*⁸

Asteatotic eczema was commonest (20%) followed by seborrheic dermatitis (15%), hand dermatitis, and nummular eczema in this study. (**Table 2**). The prevalence of seborrheic dermatitis was very high compared to other studies.^{5,9}

Fungal infections were the most common infection in our study, similar to other studies.^{5,8} The fungal infections especially onychomycosis were more common in women (24.5%). This can be attributed to the frequent household work done by them. Among bacterial infections there were 4 cases of leprosy other than the common pyoderma. There was one patient with genital chancre (**Table 3**). With aging the immunity of the body decreases, the skin becomes xerosed with dysfunctional skin barrier. This causes

increased frequency of cutaneous infections in the elderly.

Pigmentary skin diseases were present in 26% of patients and they were quite high compared to other studies.⁷ IGH was the commonest followed by seborrheic keratosis, melasma and vitiligo. The incidence of IGH was 25% which is similar to a study by Patange *et al.*⁶

There were 6 (3%) cases of bullous pemphigoid, 4 (2%) cases of pemphigus vulgaris. This was also higher than other Indian studies.³

There were only 2 cases of cutaneous malignancy, both basal cell carcinoma over face. This low prevalence may be due to the fact that they present more commonly in surgery outdoor.

In our study the most common finding was loss of teeth observed in 90 (45%) individuals. This is due to higher prevalence of tooth loss in elderly age group.¹⁰ Adverse drug reactions are common in elderly age group due to increased consumption of miscellaneous drugs. We found adverse drug reaction in 4 (2%) patients similar to the report by Yalcin *et al.*¹¹

Systemic comorbidities observed in our study were quite high. This was higher than that reported by Sahoo *et al.*¹² and lower than by Durai *et al.*³

Conclusion

The goal of this study was to find out the percentage of elderly having dermatological diseases so that we can diagnose and treat them. We found that pruritus, asteatotic dermatitis, seborrheic dermatitis and fungal infections were the commonest skin problems. Like systemic

disorders cutaneous problems also need to be addressed and treated to give the elderly a healthy aging.

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