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GERIATRIC DERMATOSES - A CLINICAL STUDY

Dermatology

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ABSTRACT

Introduction: Aging is a biological reality, which has its own dynamics, beyond human control. People aged 60+ years are generally referred to as older population. Skin mirrors the first signs of natural aging, and the maintenance, and improvement of its quality has gained particular attention.

Aim: This study aims to delineate the spectrum of various geriatric dermatoses.

Material and Methods: All patients aged 60 years and above of either sex, presented to the dermatology OPD and IPD were recruited for the study. A detailed history, demographics, complete dermatological examination, along with routine investigations whenever required were recorded in predesigned proforma.

Result: Out of 300 patients studied, 68.7 % were males and 31.3 % were females. The group 60-69 years constituted a maximum (65.7%) number of geriatric patients. Among physiological manifestations, wrinkling was the commonest seen in all the patients followed by xerosis (48%) and seborrheic keratosis (44.7%).Greying of hair (92.3%) was the commonest age related hair change. Among the nail changes, longitudinal ridging (84%) was the commonest followed by nail pigmentation (43.7%). Among infections and infestations, fungal infections were the commonest seen in 23%, followed by viral infections in 10.7%, bacterial infections in 8% and scabies in 4.3% of geriatric patients.

Conclusion: The geriatric population is afflicted with a great many dermatology concerns, not only because of normal aging process but the additional stressors acquired from the environmental causes.

KEYWORDS:

Aging, Geriatric, Wrinkling, Elderly

INTRODUCTION

Aging is a biological reality, which has its own dynamics, beyond human control. People aged 60+ years are generally referred to as older population.[1] In India, there were 72 million elderly persons above 60 years of age as of 2001 and this number is likely to increase to 179 million in 2031 and hence dermatologic care in geriatric population needs emphasis.[2] Skin mirrors the first signs of natural aging, like all other organs, it undergoes chronological aging and aging as a consequence of environmental damage (photoaging).[3] Skin diseases are common in elderly, and increased prevalence of skin disease may reflect underlying systemic diseases such as diabetes mellitus, neurological disease, vascular insufficiency and malignancy, and may also be due to restricted mobility/lack of care and compromised immune status.[4] The main aim of this study was to determine the spectrum of cutaneous manifestations in geriatric age group.

MATERIALS AND METHODS

Three hundred consecutive patients aged 60 years and above of either sex, presented to the dermatology OPD and IPD were recruited for the study. Detailed history, demographics and clinical examination were recorded in predesigned proforma. A clinical photograph was taken of the relevant skin changes. Relevant investigations pertaining to the study were carried out to support the clinical findings. There was no exclusion criteria in our study.

RESULTS

Out of 300 patients studied, 68.7 % were males and 31.3 % were females. The group 60-69 years constituted a maximum (65.7%) number of geriatric patients, followed by 26% in 70-79 years and 8.3% in age group ≥80 years. The male to female ratio was 2.19:1. Among physiological skin manifestations, wrinkling (Figure 1) was the commonest seen in all the patients (100 %). Wrinkling was followed by xerosis (Figure 2), seborrheic keratosis (Figure 3), cherry angiomas (Figure 4), senile comedones (Figure 5), idiopathic guttate hypomelanosis, and senile lentigenes, seen in 144 (48%), 134 (44.7%), 132 (44%), 115 (38.3%), 95 (31.7%), and 94 (31.3%) cases, respectively. Other physiological skin changes observed were sunken eyes in 54 (18%), senile purpura in 47 (15.7%), mucosal hyperpigmentation in 44 (14.7%), dermatosis papulosa nigra and mucosal staining each in 26 (8.7%), actinic keratoses in 16 (5.3%), melasma in 13 (4.3%), freckles in 5 (1.7%), citrine skin in 5 (1.7%) and venous lakes in 3 (1%) cases. The incidence of physiological skin changes is shown in (Table 1).

Among the nail changes ridging of nails was the commonest finding seen in 252 (84%) cases, followed by pigmentation in 131 (43.7%), loss of luster in 82 (27.3%), dystrophy in 54 (18%), thinning in 46 (15.3%), hyperkeratosis in 24 (8%), pitting in 15 (5%), onycholysis in 6 (2%) and Beau's lines in 3 (1%) cases.

Greying of hair was the commonest hair change seen in 277 (92.3%) cases, followed by male pattern baldness in 145 (70.4%) males, pinna hypertrichosis in 80 (38.8%) males, female pattern hair loss in 24 (25.5%) females and hirsutism in 10 (10.6%) females.

Among the infections and infestations, fungal infections were the most common, observed in 69 (23 %) cases, followed by viral

infections in 32 (10.7%), bacterial infections in 24 (8%) and scabies in 13 (4.3%) cases. Among the fungal infections, dermatophytosis (Figure 6) was the commonest, observed in 51 (17%) cases, candidiasis in 16 (5.3%) cases and pityriasis versicolor in 2 (0.7%) cases. Among the viral infections, herpes zoster (Figure 7) was seen in 23 (7.7%) cases, followed by warts in 8 (2.7%) cases and herpes simplex virus infection in 1 (0.3%) case. Among the bacterial infections, leprosy (Figure 8) was seen in 8 (2.7%) cases, followed by furuncle in 7 (2.3%) cases, carbuncle (Figure 9) in 4 (1.3%) cases, folliculitis in 3 (1%) cases and lupus vulgaris in 2 (0.7%) cases. Scabies was the only infestation noted in 13 (4.3%) cases. The incidence of infections and infestations is depicted in (Table 2).

Papulosquamous disorders were seen in 57 (19%) cases. Forty five (15%) had psoriasis and 12 (4%) had lichen planus. Vesiculobullous disorders were seen in 4 (1.3%) cases, out of which dermatitis herpetiformis was seen in 3 (1%) cases and bullous pemphigoid in one (0.3%) case. Eczema was present in 10 patients (3.3%), allergic contact dermatitis in 5 (1.7%) cases, seborrhoeic dermatitis in 2 (0.7%) cases and atopic dermatitis in 1 (0.3%) case. Airborne contact dermatitis was seen in 11 (3.7%) cases and photosensitive dermatitis in 10 (3.3%) cases. In the present study we found 4 cases of basal cell carcinoma.

DISCUSSION

Out of the total of 300 patients studied by us, the number of male patients were 206 (68.7%%) and female patients were 94 (31.3%) with male to female ratio 2.19:1. A similar gender distribution was observed in various studies.[4-6] Majority of the patients in our study were in the age group of 60-69 years, their number being 197 (65.7%), followed by 26% in 70-79 years and 8.3% in age group ≥80 years, out of the total 300 geriatric patients enrolled in the study. This finding is similar to finding of Sheethal MP et al[4] and Darjani A et al.[7]

Wrinkling was the most common physiological skin change in our study, seen in all the cases (100%) which coincides with the findings of various studies.[4,5,8] However we further divided wrinkling into fine and deep wrinkling, seen in 47% and 53% of geriatric patients, respectively. In our study wrinkling was observed over sun exposed areas mainly face and neck which is also similar to most of other studies.[4,5,8] Xerosis was the second most common physiological change seen in this study (48%), which is comparable to that reported in the study by Chopra A al[9] and Elfaituri SS[10]. The prevalence of xerosis varies from 6.6% to 93% in various studies.[4-6,811,12] Lower incidence of xerosis in our study could be because of use of mustard oil by elderly and high humidity due to canal irrigated land in this area.

Seborrhoeic keratosis accounted for 44.7% of patients in this study. Durai PC et al[3] and Grover S and Narasimhalu C[8] reported seborrheic keratosis in 50.6% and 43% of patients, respectively, which coincides with the result of our study. Our result is different to some studies [5,13,14] which showed a higher incidences while others [6,7,9,12] which showed a lower incidence as compared to ours. The difference in observed incidence of this finding among different studies could be due to racial differences and different skin type, as the seborrheic keratosis more commonly occurs in fair skinned individuals.

In this study cherry angiomas were observed in 44% of geriatric patients, which is comparable to other studies.[5,6,10] It was reported in 20.9% [11], 53.7% [14], 63% [8], and 75% [13] of geriatric patients in various studies. The differences in the observed incidence of this finding among the different studies could be due to ethnic and regional variations.

The incidence of senile comedones was 38.3% in this study, which coincides with results of Leena Raveendra.[5] Our results differ from other studies.[6,8,11,13,14] Six (2%) of our patients had Favre-Racouchot syndrome, which was similar to study by Leena Raveendra.[5] Idiopathic guttate hypomelanosis was observed in 95 (31.7%) cases in the present study.

Various studies have observed an incidence of 24% to 75% for idiopathic guttate hypomelanosis, which is in consonance with our result. It was an incidental finding in all the patients, implying that it was not a source of concern for geriatric population. The prevalence of senile lentigenes was reported to be 10%-70.6% in various studies. [4-7,10,14] In this study they were found in 94 (34.3%) cases.

In the present study sunken eyes were observed in 18% of patients. Durai PC et al[3] found a higher incidence of sunken eyes as compared to our study, to be 61.6% .Senile purpura was observed in 15.7% of our patients. Our result differs from other studies [5,6,10-12] which showed a lower incidence of senile purpura.

The incidence of 14.7% of mucosal hyperpigmentation was seen in our study. This is in concordance with the finding of Grover S and Narasimhalu C[8] (15%) and Patange SV et al[6] (17%). Mucosal staining presents as orange-brown colored staining due to chlorhexidine rinsing and paan/betel chewing, over the tongue, lips and gingiva. In the present study this finding was seen in 26 (8.7%) cases, which was in well concordance with Durai PC et al.[3]

The incidence of dermatosis papulosa nigra in our study was 8.3%, which is similar to study done by Chopra A et al[9] (7.2%) and Pavithra S et al [11] (5.3%) but higher than that reported by other studies.[5,8,14] The incidence of actinic keratosis was found to be 8.5% in our patients which is different to other studies. [10,14]

Melasma was observed in 4.3% of our geriatric patients. This is much lower than reported in another Indian study [12] but comparable to that reported in the study done by Leena Ravindra.[5] In our study freckles were seen only in 5 (1.7%) cases, which is lower than reported by Durai PC et al.[3] Citrine skin which presents as, leathery skin with yellow hue was observed in 1.7% of geriatric patients in our study, which is similar to that reported by Durai PC et al[3] to be 1%. Three of our patients had venous lakes, this incidence is slightly lower to that reported by Elfaituri SS.[10]

Among infections and infestations fungal infections were the commonest seen in 69 (23%) patients, which coincides with few studies.[6,11] High prevalence of fungal infections in our study is probably due to hot and humid climate conditions and occupation of the general population in the region of Western U.P. Viral infections were observed in 32 (10.7%) patients in our study which is comparable to other studies.[5,10] In our study bacterial infections were seen in 24 (8%) patients. This is similar to observation made by Patange SV et al[6] (8.5%), Elfaituri SS[10] (9%). Scabies was observed in 13 (4.3%) patients in the present study. An equal incidence of scabies (4.3%) was observed by Darjani A et al[7] in their study.

In the present study, psoriasis was seen in 45 patients out of the total 300 cases included in the study with an incidence of 15%, which is well in accordance with the study by Darjani A et al.[6] It was reported in 9% [12], 7.7% [10] and 7% [5] in various studies. Lichen planus is observed in 2% to 5.5% patients in the studies done by various authors. Present observation of 4% in this study is in consonance with the reported incidence.

In the present study, total 4 cases of vesiculobullous disorders were seen, out of which dermatitis herpetiformis was seen in 3 (1%) cases and bullous pemphigoid in one (0.3%) case. The study of Durai PC et al[3] showed a lower incidence of dermatitis herpetiformis and a higher incidence of bullous pemphigoid as compared to our results.
In this study, eczemas was observed in 10 (3.3%) geriatric patients. Our observation differs from that of study by other authors [3,5,8,10,11] who found a higher incidence of eczema. Seborrhoeic dermatitis was observed in 0.7% of patients in the present study. Various similar studies have observed an incidence of 0.3% to 19.3% for seborrhoeic dermatitis, which is in consonance with our result. An incidence 1.7% of allergic contact dermatitis and 0.3% of atopic

dermatitis was noted in this study which is concordant with study by Leena Raveendra.[5]

Basal cell carcinoma in the present study was seen in 4 (1.3%) cases which is well in accordance with the incidence observed by Elfaituri SS[10] and Durai PC et al[3] in 1.6% and 1% patients, respectively.

CONCLUSION:

Skin diseases are common in elderly people and adversely affect their quality of life. In this study common problems in elderly were xerosis, fungal infections and various eczematous condition. It is important for a dermatologist that dermatological care in geriatric population should not be only focused on aging skin but also on various dermatoses which are common due to prolonged sun exposure, underlying systemic diseases, medications and immunosuppresion in these patients.

Skin changes		Number of cases (N=300)	Percentage (%)
Wrinkling	Deep	159	53
	Fine	141	47
	Total	300	100
Xerosis		144	48
Seborrheic keratoses		134	44.7
Cherry angioma		132	44
Senile comedones		115	38.3
Idiopathic guttate hypomelanosis		95	31.7
Senile lentigenes		94	31.3
Sunken eyes		54	18
Senile purpura		47	15.7
Mucosal hyperpigmentation*		44	14.7
Dermatosis papulosa nigra**		26	8.7
Mucosal staining		26	8.7
Actinic keratosis		16	5.3
Melasma		13	4.3
Freckles		5	1.7
Citrine skin		5	1.7
Venous lakes		3	1

Table 1 : Physiological skin changes

* Only oral mucosal hyperpigmentation

** Because of habit of betel/tobacco chewing and chlorhexidine rinsing of teeth

Type of infections	Sub type	Number of cases (N=300)	Percentage (%)
Fungal infections	Fungal total	69	23
	Dermatophytosis	51	17
	Candidiasis	16	5.3
	Pityriasis versicolor	2	0.7
Viral infections	Viral total	32	10.7
	Herpes zoster	23	7.7
	Wart	8	2.7
	HSV	1	0.3
Bacterial infections	Bacterial total	24	8
	Leprosy	8	2.7
	Furuncle	7	2.3
	Carbuncle	4	1.3
	Folliculitis	3	1
	Lupus vulgaris	2	0.7
Parasitic infestations	Scabies	13	4.3

Table 2 : Incidence of infections and infestation

Figure-1 : Wrinkling

Figure- 2 : Xerosis

Figure- 3 : Seborrheic keratosis

Figure- 4 : Cherry angiomas

Figure- 5 : Senile comedones

Figure- 6: Dermatophytic infection

Figure- 7 : Herpes zoster

Figure- 8 : Hansen's disease BT type

Figure- 9 : Carbuncle

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