

Pattern of dermatoses among geriatric population attending dermatology department at a tertiary care centre of south-east Rajasthan

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Abstract

Background: The geriatric population is composed of the person of 60 years of age. India accounted for 7.4% of the total population in 2001, 8.6% (104 million) in 2011, and the figure has been projected to increase to 19% by the years 2050.¹

Aging is an inevitable and continuous process with a variable spectrum of manifestation in all organ systems including the skin. Aging is a process where both intrinsic and extrinsic stimuli such as ultraviolet rays Smoking, environmental pollutants affect the structural as well as functional integrity of the skin. Common skin disorders seen in the elderly are xerosis, pruritus Photoaging, benign tumors like acrochordons, seborrheic keratosis, cherry angioma, and infections like herpes zoster, dermatophytosis, etc. Eczematous conditions

like asteatotic eczema, stasis eczema, discoid eczema are common in elderly

Aim and objective: To know about the pattern of dermatoses among the geriatric population at the tertiary care center of south-east Rajasthan.

Materials & method: This is a cross-sectional study carried out in the Department of Dermatology, Venereology, and Leprology, Government Medical College, Kota. the study was conducted for one year from July 2019 to June 2020. All patients age 60 years and above attending the Dermatology Department and references from various disciplines were included in the study. over one year, 210 study participants were enrolled for the study. An informed & written consent was taken from all study participants.

Result: The maximum number of patients in this study belonged to 60-65 years (40.47%). Among the 210 patients, There were 138 males (65.71%), and 72 females (34.28%), in this study. the male to female ratio was 1.91:1. Most of the males had agriculture work and most of the females were housewives. Hypertension was the commonest associated systemic disease seen in 70 cases (33.33%). In our study out of 210 cases, xerosis of the skin was one of the commonest findings seen in 126 cases (60%). Among the pathological skin disorders, eczematous conditions were most commonly seen in 82 cases (39.04%), out of 210 cases.

Conclusion: Geriatric dermatoses are important in terms of the patient presenting from a mild condition like cherry angiomas to severe conditions like basal cell carcinomas and squamous cell carcinomas. Hence thoroughly detailed history should be taken and the problem should be identified and treated.

Keywords: Geriatric, Population, Aging

Introduction

The geriatric population is composed of person of 60 years of age. India accounted for 7.4% of the total population in 2001, 8.6% (104 million) in 2011 and the figure has been projected to increase to 19% by the years 2050.¹

Aging is an inevitable and continuous process with a variable spectrum of manifestation in all organ system including skin.² Aging is a process where both intrinsic and extrinsic stimuli such as ultraviolet rays Smoking, environmental pollutants affect structural as well as functional integrity of skin giving rise to spectrum of disease such as xerosis, eczema, psoriasis.³ Major advance in medical field and overall improvement in socioeconomic status have led to a significant increase in life expectancy. So there is a longer life time exposure to

various toxic agent, irritant, environmental factor in the elderly individual, which may be profound effect on their health.⁴

Common skin disorders seen in the elderly are xerosis, pruritus Photoaging (dermatophilosis), benign tumors like acrochordrans, seborrheic keratosis, cherry angioma and infections like herpes zoster, dermatophytoses, etc. Eczematous conditions like asteatotic eczema, stasis eczema, discoid eczema is common in elderly⁵. The dermatology practice of the future will see an increase in the number of geriatric patients and geriatric health care has become a major international issue⁶.The burden and pattern of geriatric dermatoses has varied in different population groups various studies. So there is a need to evaluate cutaneous disorders in this population. In India, very few studies have been done to look into the cutaneous manifestations in the elderly people though several studies have been carried out in the west⁷.We plan to evaluate of different dermatological problems in geriatric population in south – east Rajasthan.

Material and methods

This is a cross-sectional study carried out in the Department of Dermatology, Venereology and Leprology, Government Medical College, Kota. Study was conducted for one year from July 2019 to June 2020. All patient age 60 year and above attending the Dermatology Department and references from various disciplines were included in the study. Over a period of one year 210 study participants were enrolled for the study. An informed & written consent was taken from all study participants. A detailed history including the duration of the disease, site of involvement, occupation, leisure activities and demographic details were taken followed by thorough systemic & dermatological examination.

Investigation like complete blood count, liver function test, renal function test, random blood sugar was done. Other investigation like KOH mount, TZANCK smear, skin biopsy, immunofluorescence was done for all

relevant case or if the diagnoses could not be arrived clinically. Descriptive analysis of data was done using mean, percentage and frequency distribution tables.

Results

Table 1: Demographic profile of study participants

Variables		Number of Patients	Percentage (%)
Age Groups	60-65	85	40.47%
	66-70	59	28.09%
	71-75	40	19.04%
	76-80	18	8.57%
	80+	8	3.80%
Sex	Male	138	65.71
	Female	72	34.28
Occupation	Agriculture	127	60.47
	Housewife	35	16.66
	Retired	48	22.85
Associated Systemic Diseases	Hypertension	70	33.33
	Diabetes mellitus	55	26.19
	Ischaemic heart disease	8	3.80
	Bronchial asthma	6	2.85
	Anaemia	6	2.85
	Kidney disease	3	1.42
	COPD	2	0.95
	Hypothyroidism	1	0.47
	Benign prostatic hypertrophy	1	0.47
	No systemic associations	59	28.09%

Table 2: Skin changes with aging:

Skin changes		Number of Patients	Percentage (%)
Physiological	Xerosis	126	60
	Wrinkling	96	45.71
	IGH	62	29.52
	Senile comedones	12	5.71
	Senile lentigines	14	6.66
Pathological	Generalised Pruritus	60	28.57
	Eczema	82	39.04
	Infection	81	38.57
	Papulosquamous	21	10.0
	Vesicobullous	12	5.71
	Psychocutaneous	28	13.33
	Vascular	08	3.80
	Granulomatous	01	0.47
	Premalignant and malignant Tumours	04	1.90
	Nutritional	01	0.47

Table 3: Pathological conditions of skin:

Pathological conditions		Number of Patients	Percentage (%)
Eczematous Conditions (n=82)	Chronic eczema	22	26.82
	Asteatotic eczema	16	19.51
	Stasis eczema	12	14.63
	Airborne contact dermatitis	9	10.97
	Infectious eczematous dermatitis	7	8.53
	Contact dermatitis	7	8.53
	Hand eczema	6	7.31
	Nummular eczema	2	2.43
	Seborrhoeic dermatitis	01	1.21
Generalised Pruritus (n=60)	Xerosis	32	53.33
	Diabetes mellitus	21	35
	Anaemia	3	5

	Kidney disease	3	5
	Hypothyroidism	1	1.6
	Liver disease	1	1.6
Papulosquamous Disorders (n=21)	Psoriasis	16	76.19
	Lichen planus	5	23.80
Bullous Disorders (n=12)	Bullous pemphigoid	07	58.33
	Pemphigus vulgaris	05	41.66
Psychocutaneous Disorders (n=28)	Lichen simplex chronicus	18	64.28
	Delusional parasitosis	06	21.42
	Prurigo nodularis	04	14.28
Infectious Conditions (n=81)	Fungal	56	71.79
	Bacterial	8	6.41
	Viral	9	11.53
	Parasitic	8	10.25
Miscellaneous Conditions (n=26)	Amyloidosis (macular, lichen)	6	23.07
	Leg ulcer	5	19.23
	Chronic urticaria	5	19.23
	Acrokeratoelastoidosis marginalis	3	11.53
	Vitiligo	2	7.69
	Granuloma annulare	2	7.69
	Lichen scleroses et atrophicus	2	7.69
	Pyogenic granuloma	1	3.84

Discussion

In present study, a total of 210 patients varying in age from 60-93 years were examined. Of these, 138 patients (65.71%) were males and 72 (34.28%) were females similar to study done by Patange and Fernandez⁸ studied 200 cases in an OPD setting, aged 55-85 years of age, of which 63% were males and 37% were females. While in study done by Priya Cinna and Thappa⁹ female

predominance was seen; out of 500 participants, 213 were males (42.6%) and 287 (57.4%) were females.

Among 210 cases in this study, 151 had associated systemic illness. This is higher than found in other studies. hypertension was the commonest association seen in 70 (33.33%), followed by Diabetes mellitus in 55 cases (26.19%) similar to the studies done by Patange and Fernandez⁸ and Goyal et al¹⁰

Incidence of generalized pruritus in present study was 32 cases (53.33%), which was lower than that of Patange and Fernandez⁸ (78.5%) but comparable to the study conducted by Priya Cinna and Thappa⁹ (49.6%)

Asteatotic eczema observed in 126 patients out of 210 (60%) similar to study of Chopra et al¹¹ 108 (50.8%) cases. Beaugard and Gilchrist¹² found in 85% of cases. Tindall and Smith¹³ observed an incidence of 77%.

Wrinkling was observed in 96 patients (45.71%) out of 210 This incidence was lower than found in other studies. Beaugard and Gilchrist¹² observed in (95.6%). Patange and Fernandez⁸ do not mention the incidence of wrinkling. Tindall and Smith¹³ in (94%) and Priya Cinna and Thappa⁹ reported an incidence of 100% in their study. Goyal et al¹⁰ also recorded wrinkling as the commonest physiological change seen in 273/ 610 (44.8%). In present study most of the wrinkling was observed on sun exposed areas like face, neck, forearms, dorsa of hands.

In present study among 210 cases Idiopathic guttate hypomelanosis (IGH) was seen in 62 (29.52%). A similar incidence of IGH was also found in study by Singh et al.¹⁴ (31.7%) and Priya Cinna and Thappa⁹ found it in 26% (130 cases). In our study most lesions are observed in non-sun exposed areas like chest and shins of lower limb.

Senile comedones was found in 12 cases (5.71%) in this study which was comparable to the study conducted by Priya Cinna and Thappa⁹, in which it was found in 23 cases (4.6%). Patange and Fernandez⁸ reported an incidence of 11.5% while Grover and Narasimhalu¹⁵ seen in 13 cases (6.5%).

Senile lentigenes was found in 14 cases (6.66%) out of 210. It was comparable to the study conducted by Patange and Fernandez⁸ who observed an incidence of

12%. Beaugard and Gilchrist¹² noticed it in 70.6%. Tindall and Smith¹³ reported an incidence of 51%. Racial influence could be the cause for lower incidence seen in our study.

In this study following pathological skin conditions were observed: Eczematous conditions, Papulosquamous disorders, infections, benign skin tumours, premalignant and malignant skin tumours, bullous disorders, psychocutaneous disorders, drug reactions and miscellaneous skin changes.

Among 210 cases, eczematous conditions were found in 82 (39.04%) cases in our study. Of these asteatotic eczema was found in 16 cases (19.51%). Stasis eczema in 12 cases (14.63%), airborne contact dermatitis in 9 cases (10.97%), infectious eczematous dermatitis in 7 cases (8.53%), contact dermatitis in 7 cases (8.53%) and seborrhoeic dermatitis in 1 case (1.21%). Patange and Fernandez⁸ found contact dermatitis in 7.5%. Priya Cinna and Thappa⁹ observed an incidence of eczema in 24.2%. Beaugard and Gilchrist¹² reported an incidence of contact dermatitis in 11.8%, stasis eczema in 5.9%, seborrhoeic dermatitis in 10.5%, a total of 28.2% cases of eczema. Verbov¹⁶ noticed an incidence of 24.7%. Weismann et al¹⁷ study showed an incidence of seborrhoeic dermatitis in 7%, stasis dermatitis in 6.9% and contact dermatitis in 3.8%. Johnson¹⁸ observed contact dermatitis in 2% and seborrhoeic dermatitis in 3.6%. Incidence of eczema in our study was higher than found in other studies.

In present study psoriasis was seen in 16 cases out of 210 (7.61%), which was similar to that seen by Patange and Fernandez⁸ who observed it in 10.5% of cases. Tindall and Smith¹³ found in 7 cases (3.5%). Beaugard and Gilchrist¹² reported an incidence of 2.9%. Study by Goyal et al,¹⁰ Kshetrimayum et al¹⁹ and Chopra et al¹¹

have quoted the incidence of psoriasis to be 6.39%, 6% and 5.6% respectively. Out of 210, lichen planus was seen in 5 cases in our study (2.38%). Present study was comparable with study by Sahoo, Singh et al²⁰ who reported incidence of lichen planus.

Among 210 cases, infective conditions were seen in 81 patients (38.57%) in this study, out of these fungal infections were seen in 56 cases (26.66%), bacterial infections were seen in 8 cases (3.80%), viral infections in 9 cases (4.28%) and parasitic infections in 8 cases (3.80%).

Patange and Fernandez⁸ have observed infective dermatoses in 34.5% of the total dermatoses. Of these, fungal infection was seen in 17.5%, bacterial infection in 8.5% and viral infections in 5%. Beauregard and Gilchrist¹² found dermatophytosis in 17.7%. Priya Cinna and Thappa⁹ noticed in 46.8%, of which fungal infections were seen in 34.4%, bacterial infections in 0.8%, viral infections in 0.6%. Tindall and Smith¹³ observed dermatophytosis in 79%, but they have not mentioned about other infective conditions. Nair et al²¹ found the fungal, viral and bacterial infections in 11.95%, 7.1% and 1.96% patients respectively.

Among 210, bullous disorders were seen in 12 (5.71%) cases, out of which bullous pemphigoid was seen in 7 cases (3.33%) and pemphigus vulgaris seen in 5 cases (2.38%). Priya Cinna and Thappa⁹ found pemphigus vulgaris in 9 cases (1.8%), which is similar to our study. They have reported incidence of bullous pemphigoid in 8 cases (1.6%). Chopra et al¹¹ observed 4 cases of bullous pemphigoid (1.8%).

Out of 210, total number of of psychocutaneous disorder in this study was 28 cases (13.33%). Incidence of psychocutaneous disorder in a study conducted by Chopra et al¹¹ was 13.5%. Patange and Fernandez⁸

observed it in 12% of cases. The incidence of other psychocutaneous disorders in our study was lower than that found in other studies.

Out of 210 cases seborrheic keratoses was seen in 67 (31.90%) cases. Cherry angioma in 62 (29.52%) cases, dermatosis papulosa nigra in 40 (19.04%) cases, achrochordons in 39 (18.57%) cases.

Patange⁸ found seborrheic keratoses in 37.5%, cherry angioma in 46.5%, and achrochordons in 24.5% of cases. Priya Cinna and thappa⁹ noticed seborrheic keratosis in 253 cases (50.6%), cherry angioma in 36 (7.2%) cases and acrochordons in 49% and sebaceous hyperplasia in 1.6% of cases.

Beauregard and Gilchrist¹² found seborrhic keratoses in 61.2%, cherry angioma in 53.7% cases and dermatosis papulosa nigra in 58.8% of cases. Tindall and Smith¹³ observed seborrheic keratoses in 88% and cherry angioma in 75% of cases. Grover and Narasimhalu¹⁵ reported seborrheic keratosis in 43% and cherry angioma in 63% of cases. In our study, cutaneous amyloidosis (macular, lichen) was seen in 6 cases (2.85%), leg ulcers was seen in 5 cases (2.38%), chronic urticaria was seen in 5 cases (2.38%), acrokeratoelastoidosis marginalis was seen in 3 cases (1.42%), vitiligo, granuloma annulare and lichen scleroses et atrophicus were seen in 2 cases each (0.95%), 1 case (0.47%) pyogenic granuloma was seen.

Weismann and Krakauer et al¹⁷ found 2.2% incidence of leg ulcers. Priya Cinna and Thappa⁹ reported an incidence of 0.2% for colloid milia and 0.9% of acrokeratoelastoidosis marginalis in their study.

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Legend Figures

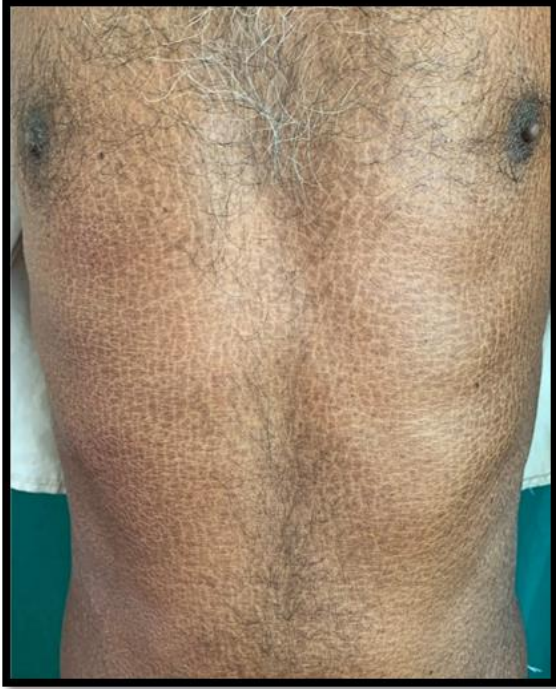


Figure 1: Xerosis

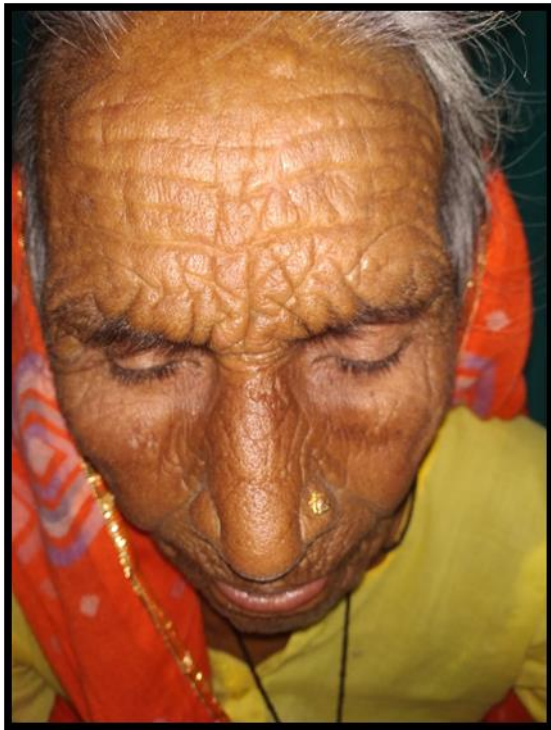


Figure 2: Glyptic Wrinkles

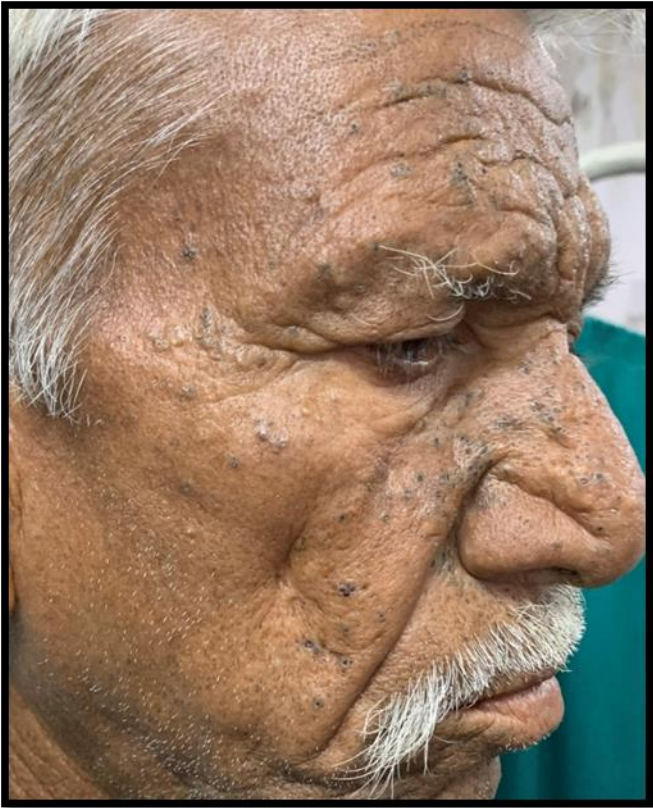


Figure 3: Senile Comedones



Figure 4: Seborrheic keratoses



Figure 5: Idiopathic Guttate Hypomelanosis with Cherry Angioma



Figure 6: Senile Purpura



Figure 7: Acrokeratoelastoidosis Marginalis



Figure 8: Chronic Eczema



Figure 9: Lichen Simplex Chronicus



Figure 10: Herpes Zoster



Figure 11 : Granuloma Annulare



Figure 12: Basal Cell Carcinoma