Section: DVL

Original Research Article

A CLINICO-EPIDOMOLOGICAL STUDY OF MUCOCUTANEOUS MANIFESTATIONS IN GERIATRIC AGE GROUP

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ABSTRACT

Background: Aim: To study the prevalence and patterns of various dermatoses in the geriatric age group among the patients attending the Department of Dermatology, Venereology and Leprosy of NRI Medical College, a teaching Hospital, Chinakakani, Guntur District.

Materials and Methods: It was a Prospective observational study conducted at Department of DVL NRI Medical College, during the period from December 2015 – October 2017. All Geriatric patients with cutaneous lesions attending the outpatient department of DVL, who are satisfying our inclusion criteria were selected for the study and the final sample size turned out to be 200.

Results: Most of the study population have smoking habit (48.4%), 33.7% have alcoholism habit and 17.9% have pan chewing habit.40 patients have co morbid conditions like diabetes and hypertension. Among these 40 patients, 75 % have diabetes mellitus and 25% have hypertension. Among study population with skin changes with ageing IGH (47.1%) was common followed by xerosis (35.3%) and senile comedones (17.6%). Among geriatric population with eczematous conditions Air borne contact dermatitis (23.5%) was commonest presentation followed by Allergic contact dermatitis (20.5%), Asteatotic eczema 17.6%, and chronic lichenified eczema, stasis eczema, LSC constitute 8.8% respectively, and acute eczema and subacute eczema (5.8 % respectively). In the present study it was observed that among fungal infections Tinea corporis (29.2%) was common followed by Tinea corporis+Tinea cruris and Pityriasis versicolor (20.7%), oral candidiasis (16.6%) and Tinea cruris (12.5%). There were 4 furuncle cases. Among viral infections herpes zoster (80%) was common and viral warts (20%). Among the bacterial infections 4 furuncle cases (66.7%). This was followed by folliculitis 33.3% (2). Among infestations scabies were the most common which constituted about 75% (6) followed by Pediculosis 25% (2). Among Papulo squamous disorders psoriasis (60%) was common presentation followed by lichen planus (30%) and oral lichen planus (10%). Cherry angiomas (41.2%) was commonest benign tumor of the skin followed by Acrochordons (29.5%), Dermatosis Papulosa Nigra (17.6%) followed by Seborrheic keratosis 11.7%. Among bullous disorders bullous pemphigoid (71.4%) was common and pemphigus vulgaris (28.6%). Among hypersensitivity reactions there were 5 cases of acute urticaria and 5 cases of chronic urticaria. Puritus 41.1% was the most common among the miscellaneous skin lesions, which followed by senile purpura13.7%, PHN 11.7%, miliaria 9.8%, vitiligo 7.8%. 3.9% cases of keloid, pellagra, Acquired Ichthyosis and only one 1.9% case of Dermatosis papulosanigra and Erythroderma.

Conclusion: The present study brings into light the features of Geriatric dermatology such as high frequency of dermatoses like Pruritis, Eczemas and

infections. Most of people aged >65 yrs have atleast one skin disorder, and many have two or more. The incidence of Geriatric dermatoses can be brought down by increasing awareness and literacy rates among the population regarding etiology and spread of diseases. Geriatric dermatoses can be brought down by improving sanitation, nutrition and personal hygiene. This study provides a preliminary baseline data for future epidemiological and clinical research. Knowledge about diseases prevalent in this age group helps in better management thus improving the quality of life of elderly patients.
Keywords: Dermatoses, Geriatric Age Group, Dermatosis papulosanigra, Erythroderma, Seborrheic keratosis.

INTRODUCTION

Ageing is a natural process. In the words of Seneca; "Old age is an incurable disease". But more recently, Sir Sterling Ross says "You do not heal old age. You protect it; you promote it; you extend it".[1] Diseases of the geriatric population are becoming increasingly important because of the gradual increase in the life expectancy of the population in the last few decades. Ageing results in variable spectrum of manifestations in all organ systems including skin.[2] Skin act as a mirror for internal diseases, so early identification of cutaneous markers of internal diseases can help prevent advance of the diseases.[3] The common skin disorders in elderly are xerosis, pruritus, dermatoheliosis (photo-ageing), benign tumours like seborrheic keratosis, cherry angioma, infections like herpes zoster, dermatophytosis, cellulitis, etc. Eczemas like asteatotic eczema, stasis eczema, and other forms of eczema are common in elderly.[4] Consequences of dermatoses not only suffer the patients but also sometimes make them embarrassed.[5] Cutaneous immunity suffers with age. Progressive reduction in normal immune system leads to reactivation of viral infection like herpes zoster and development of autoimmune disorders.[2] Skin disease affects most persons both physically and psychologically. Dermatologic diseases significantly affect patient's depression.[5]

India entered the group of ageing countries in 2001 with the population of persons aged 60 years and above exceeding 7%. Further the geriatric population is expected to double by 2026.[6] In this scenario, with life expectancy in India going up to 63.9 years in males and 66.9 years in females in 2004, this study was undertaken to study the spectrum of cutaneous manifestations and prevalence of physiological and pathological changes in the skin of elderly people.[1] The present study was undertaken to describe the frequency and clinical pattern of cutaneous manifestations in elderly 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 west1. Skin changes in the elderly may occur due to natural ageing process, or due to any dermatosis, the pattern, of which may be unique or different in the aged population. The geriatric population is composed of persons over 65 years of age and very few studies are available on the dermatologic diseases in this group.[7]

The present study was carried out from December 2015 to October 2017 in NRI Medical College, Chinakakani, Guntur. A total of 200 consecutive patients aged over 65 years attending DVL OPD were chosen as the study group after written informed consent. A detailed history was taken regarding the onset and duration of cutaneous manifestations and its association with other systemic illness. Thorough dermatological examination was carried out on all study patients. Relevant investigations which included hemogram, biochemical tests and a skin biopsy, fungal scrapings were performed, wherever needed.

Aims and Objectives

Aim

To study the prevalence and patterns of various dermatoses in the geriatric age group among the patients attending the Department of Dermatology, Venereology and Leprosy of NRI Medical College, a teaching Hospital, Chinakakani, Guntur District.

Objective

To study the clinical patterns of various mucocutaneous manifestations in the Geriatric population.

MATERIALS AND METHODS

Study Setting: Department of DVL NRI Medical College, Chinakakani, Guntur.

Study Design: Prospective observational study.

Study period: December 2015 – October 2017

Study Sample: All Geriatric patients with cutaneous lesions attending the outpatient department of DVL, NRI Medical College who are satisfying our inclusion criteria were selected for the study and the final sample size turned out to be 200.

Study subjects

Inclusion Criteria

1) Patients aged 65years and above will be included.
2) Patients willing to give informed consent for taking part in the study.

Exclusion Criteria

1) Patients with age below 65 years will not be included.
2) Non – consenting patients.

Ethical Issues

1) The study protocol was approved by Institutional Ethics committee of NRI Medical College, Chinakakani, prior to the initiation of the study.
2) Informed verbal and written consent was obtained from all the study subjects.
3) Personal information will be preserved securely and confidentiality will be assured to all participants.

Methodology

- Patients above 65 years with cutaneous lesions seeking help at the Department of DVL during December 2015–October 2017 were considered for the study.
- A detailed history was taken and physical and systemic examinations were done.
- Detailed dermatological examination was done and all findings were noted in a pre designed Proforma.
- Routine investigations including hemoglobin, complete blood counts, urine analysis, blood sugar examination was carried out whenever it was necessary.
- Skin scrapings, nail clipping for fungus, Tznack smears and skin biopsies were done whenever indicated.
- The interviews were conducted in a language that the patients can understand.

Statistical Analysis: Data was entered into Microsoft excel 2010 software and F for all statistical analysis, SPSS (statistical package for social sciences) version 23 was used. MS Excel 2010 was used for data entry. All the values are presented as numbers and percentages. Descriptive statistics such as means and standard deviations were also done.

RESULTS

200 randomly selected geriatric patients attending the Department of DVL, NRI Medical College, Chinakakani, Guntur from December 2015 to October 2017 were studied and analyzed as follows.

200 randomly selected geriatric patients attending the Department of DVL, NRI Medical College, Chinakakani, Guntur from December 2015 to October 2017 were studied and analyzed as follows.

Sex Wise Distribution

Table 1: Sex Distribution

Out patients	Number	Percentage
Males	125	62.5
Females	75	37.5
Total	200	100

In the present study males constituted about 62.5% (125) and females constituted about 37.5% (75).

Table 2: Age and sex distribution of study population

Age group	Males	Females	Percentage
65-69	61 (57)	46 (43)	107 (53.5)
70-74	39 (68.4)	18 (31.6)	57 (28.5)
75-79	15(71.4)	6 (28.6)	21 (10.5)
>80	10 (66.7)	5 (33.3)	15 (7.5)
Total	125 (62.5)	75 (37.5)	200 (100)

In the present study, it is observed that most of the population were in the age group of 65-69 yrs which constitute about 53.5% (107) of which males were 57% (61) and females were 43% (46). This is followed by 70-74yrs age group which constitute about 28.5% (57) of which males were 68.4% (39) and females were 31.6% (18). This is followed by 75-79 yrs age group which constitute about 10.5% (21) of which males were 71.4% (15) and females were 28.6% (6). The least common age group was >80 yrs and they constitute about 7.5% (15) of which males were 66.7% (10) and females were 33.3% (5).

Table 3: Region wise distribution of study population

Region	Number	Percentage (%)
Rural	80	40.0
Semi Urban	57	28.5
Urban	63	31.5
Total	200	100

In the present study population most of the patients belong to rural areas 40% (80) of cases, followed by urban areas 31.5% (63) of cases and Semi Urban areas 28.5% (57).

Table 4: Occupation wise distribution of study population Side of injury

Occupation	Number	Percentage (%)
Business Men	4	2
Carpenters	3	1.5
Cement Workers	5	2.5
Conductors	5	2.5

Drivers	3	1.5
Electrician	4	2
Farmers	66	33
Gardeners	7	3.5
House Wife	71	35.5
Jewellery Maker	3	1.5
Mechanic	3	1.5
Plumbers	3	1.5
Retired Employee	18	9
Security guard	2	1
Weavers	3	1.5
Total	200	100

Among study population, majority 35.5% (71cases) were house wives followed by farmers 33% (66) cases, retired employees 9% (18cases), Gardners 3.5% (7), cement workers and conductors 2.5% (5 cases respectively), Businessman and electrician 2% (4 respectively), carpenters, drivers, Jewellery Makers, mechanics, plumbers, weavers 1.5% (3 each), followed by security guard 1% (2 cases).

Table 5: Education status wise distribution of study population

Education status	Number	Percentage (%)
Illiterates	151	75.5
Literates	49	24.5
Total	200	100

In the present study population most of the patients were illiterates which constituted about 75.5% (151) which was followed by illiterates 24.5% (49) of cases.

Table 6: Socioeconomic status wise distribution of study population

SES	Number	Percentage (%)
Upper	11	5.5
Upper middle	53	26.5
Lower middle	136	68
Total	200	100

It is observed from the above table that majority of study population belong to lower middle class 68% (136) followed by upper middle class 26.5% (53) and upper class 5.5% (11).

Table 7: Distribution of study population according their habits (n=95)

Habits	Number	Percentage (%)
Alcoholism	32	33.7
Smoking	46	48.4
Pan Chewing	17	17.9
Total	95	100

In the present study population most of them have smoking habit 48.4 %(46) of cases, 33.7 % (32) of cases have alcoholism habit and 17.9 %(17) have pan chewing habit.

Table 8: Distribution of study population according comorbid conditions (n=40)

Comorbid conditions	Number	Percentage (%)
Diabetes mellitus	30	75
Hypertension	10	25
Total	40	100

It is observed that among the study popuation 40 patients have comorbid conditions like diabetes and hypertension. Among these 40 patients, 75% (30) have diabetes mellitus and 25% (10) have hypertension.

Table 9: Distribution of study population according to Cutaneous Manifestations

SI. No.	Cutaneous Manifestations	Total	Percentage (%)
1	ABCD	8	4
2	ACD	7	3.5
3	Achrochordons	5	2.5
4	Asteatotic Eczema	6	3
5	Bullous Pemphigoid	5	2.5
6	Cherry Angiomas	7	3.5
7	Chronic Lichenified eczema	3	1.5
8	Dermatosis Papulosa Nigra	3	1.5
9	Xerosis	6	3
10	IGH	8	4
11	LP	6	3
12	Miliaria	5	2.5
13	Pemphigus Vulgaris	2	1
14	Pruritus	21	10.5

15	Psoriasis	12	5.9
16	Scabies	6	3
17	Seborrheic Keratosis	2	1
18	Senile Comedones	3	1.5
19	Statis Eczema	3	1.5
20	Tinea corporis	7	3.5
21	Tinea cruris	3	1.5
22	Tinea corporis + Tinea cruris	5	2.5
23	Vitiligo	4	2
24	Lichen Simplex Chronicus	3	1.5
25	Post Herpetic Neuralgia	6	3
26	Furunculosis	4	2
27	Pityriasis Versicolor	5	2.5
28	Pellagra	2	1
29	Acute Eczema	2	1
30	Acute Urticaria	5	2.5
31	Chronic Urticaria	5	2.5
32	Erythroderma	1	0.5
33	Hz	8	4
34	Acquired Ichthyosis	2	1
35	Keloid	2	1
36	Lichen Amydidosis	1	0.5
37	Oral candidiasis	4	2
38	Oral LP	2	1
39	Senile Purpura	7	3.5
40	Warts	2	1
41	Subacute Eczema	2	1
42	Folliculitis	2	1
	TOTAL	202	100

Table 10: Distribution of study population according to changes with ageing (n=17)

Skin changes with ageing	Number	Percentage (%)
Xerosis	6	35.3
IGH	8	47.1
Senile Comedones	3	17.6
Total	17	100

Among the 200 patients, Wrinkles and Graying of hair is seen in almost every individual i.e 100%. Among study population, the skin changes with ageing IGH was the first most common which constituted 47.1% (8) which was followed by xerosis 35.3% (6) and the least most common senile comedones 17.6% (3).

Table 11: Distribution of study population according to Type of eczemas (n=34)

Type of Eczematous Conditions	Total	Percentage (%)
Acute eczema	2	5.8
Asteatotic Eczema	6	17.6
Allergic contact dermatitis	7	20.5
ABCD	8	23.5
Sub acute eczema	2	5.8
Chronic lichenified Eczema	3	8.8
Stasis Eczema	3	8.8
LSC	3	8.8
Total	34	100

Among geriatric population with eczematous conditions ABCD 23.5% (8) was most common presentation followed by ACD 20.5% (7) ,Asteatotic eczema 17.6%(6), CLE, Stasis eczema and LSC 8.8% (3 cases each respectively) and Acute eczema and Sub acute eczema 5.8% (2 cases each respectively).

Table 12: Distribution of Infections (n =48)

Type of Infections	Number	Percentage (%)
Bacterial	6	12.5
Viral	10	20.8
Fungal	24	50
Infestations	8	16.7
Total	48	100

In the present study, infections were common. Out of these, fungal infections were the most common. They constituted about 50% (24) of infections. Viral infections were next common 20.8% (10) of cases. Infestations are the least common type which constitutes about 16.7% (8), followed by bacterial infections 12.5% (6).

FUNGAL INFECTIONS

Table 13: Distribution of study population according to fungal infections (n=24)

Fungal Infections	Number	Percentage (%)

Oral Candidiasis	4	16.6
Pityriasis versicolor	5	20.7
Tinea corporis	7	29.2
Tinea cruris	3	12.5
Tinea corporis + Tinea cruris	5	20.7
Total	24	100

In the present study, among the fungal infections Tinea corporis 29.2% (7) was common followed by Tinea corporis + Tinea cruris and pityrasis versicolor constitute about 20.7% (5 cases each respectively. Oral candidiasis 16.6% (4) of cases followed by Tinea cruris 12.5% (3).

VIRAL INFECTIONS

Table 14: Distribution of study population according to viral infections (n=10)

Viral infections	Number	Percentage (%)
Herpes Zoster	8	80
Viral Warts	2	20
Total	10	100

In the present study among the viral infections herpes zoster was the most common. They constituted about 80% (8) of cases, followed by warts which constitute about 20% (2) of cases.

BACTERIAL INFECTIONS

Table 15: Distribution of study population according to Bacterial infections (n=6)

Bacterial infections	Number	Percentage (%)
Furuncle	4	66.7
Folliculitis	2	33.3
Total	6	100

In the present study among the bacterial infections four furuncle cases were observed which constitute 66.7% (4 cases). This was followed by folliculitis 33.3% (2). In the present study among the bacterial infections four furuncle cases were observed which constitute 66.7% (4 cases). This was followed by folliculitis 33.3% (2).

INFESTATIONS

Table 16: Distribution of study population according to Infestations (n=8)

Infestations	Number	Percentage (%)
Scabies	6	75
Pediculosis	2	25
Total	8	100

In the present study among infestations scabies were the most common which constituted about 75% (6) followed by Pediculosis 25% (2).

PAPULOSQUAMOUS DISORDERS

Table 17: Distribution of study population according to papulo squamous disorders (n=20)

Papulosquamous disorders	Number	Percentage (%)
Psoriasis	12	60
Lichen Planus	6	30
Oral lichen planus	2	10
Total	20	100

In the present study, Papulosquamous disorders were the second most common dermatoses. Among them psoriasis was the most common. It constituted 60% (12) of cases, followed by Lichen planus 30% (6) cases. Oral Lichen planus was the least common in the study, which constituted about 10 % (2) of cases.

BENIGN TUMOURS OF SKIN

Table 18: Distribution of study population according to Benign Tumours of skin (n=17)

Benign Tumours of skin	Number	Percentage (%)
Cherry Angiomas	7	41.2
Seborrheic keratosis	2	11.7
Dermatosis Papulosa Nigra	3	17.6
Acrochordons	5	29.5
Total	17	100

In the present study, benign tumours of the constituted about 17 (100%) of cases of all tumors. Among them cherry angioma was the most common. It constituted about 41.2% (7) of cases. This was followed by acrochordons which constitute about 29.5% (5) cases. This is followed by Dermatosispapulosa nigra which constitute about 17.6% (3) cases. Seborrheic Keratosis was the least common type which constitute about 11.7% (2) cases.

BULLOUS DISORDERS

Table 19: Distribution of study population according to type of Bullous disorders (n=7)

Bullous disorders	Number	Percentage (%)
Bullous pemphigoid	5	71.4

Pemphigus vulgaris	2	28.6
Total	7	100

Among bullous disorders bullous pemphigoid 71.4% (5) was commonest, followed by pemphigus vulgaris 28.6% (2).

Table 20: Distribution of study population according to type of hypersensitivity reactions (n=10)

Hypersensitivity reactions	Total	Percentage (%)
Acute urticaria	5	50
Chronic urticaria	5	50
Total	10	100

Among hypersensitivity reactions there were 5 (50%) cases of acute urticaria and 5 (50%) cases were chronic urticaria.

Table 21: Distribution of study population according tomiscellaneous skin lesions (n=51)

Miscellaneous	Total	Percentage (%)
Pruritus	21	41.1
Post Herpetic Neuralgia	6	11.7
Miliaria	5	9.8
Keloid	2	3.9
Pellagra	2	3.9
Acquired Ichthyosis	2	3.9
Lichen Amyloidosis	1	1.9
Vitiligo	4	7.8
Erythroderma	1	1.9
Senile purpura	7	13.7
Total	51	100

Above table shows there were 41.1% (21) cases of pruritus, 13.7% (7) cases of Senile purpura, 11.7% (6) cases of Post herpetic neuralgia, 9.8% (5) cases of Miliaria, 7.8% (4) of Vitiligo, 3.9% (2) cases of keloid , Pellagra and Acquired Ichthyosis, and the least common are Erythroderma and Lichen Amyloidosis which constitute 1.9% (1case respectively).

DISCUSSION

Sex Distribution

In the Present study, males constituted 62.5% of (125) cases and females constituted 37.5 % of (75) cases. Males outnumbered females. Similar results were observed in the study conducted by P. Gunalan et al.[8] It was observed that 197 (66%) were males and 103 (34%) were females, which is in correlation with the present study.

In the study conducted by Dr. Krishna Talukdar et al,[9] it was observed that 71.4% were male patients and 28.6% were female patients. These findings were similar to current study findings. Similar results were observed in the study conducted by Pragya A and Nair et al,[10] it was observed that males were 282 (61.7%) and females were 175 (38.3%) which is in correlation with the present study.

Socio demographic profile of study population:

Age and sex wise distribution

In the current study it was observed that males constituted about 62.5% (125) and females constituted about 37.5% (75). Similar findings were observed in the study conducted by Leena Raveendra1 it was observed that, 71% of study populations were males and 29% were females. Majority of study population belong to 65-70 years of age. These findings were similar to current study findings.

Similar results were observed in the study conducted by Sanjiv Grover et al,[11] it was observed that 76.5% of study population were males and remaining were females. Majority of study population were in age group of 71 to 75 years of age i.e. 21.5%.

Region wise distribution

It was observed that most of the study population belong to rural areas (40%) followed by urban areas (31.5%) and Semi Urban areas (28.5%).

Occupation wise distribution

In the current study it was observed that among study population, majority (35.5%) were house wives followed by farmers (33%), retired employees (9%), gardeners (3.5% respectively), cement workers and conductors (2.5% respectively), Businessman and electrician (2% respectively), carpenters, drivers, Jewellery Makers, mechanics, plumbers, weavers (1.5% each), and security guard (1%).

In a study done by Thakur Rajeev Singh, Shikha Singh,[12] of the 200 patients 102 were retired (51%), of which 22 were females and 80 were males; 30 (15%) were agriculturists, of which 20 were males and 10 were females; 40 females were housewives (20%); 28 (14%) patients were doing some business, of which 3 were femalesand 25 males. Thus, most male patients were retired and most of the female patients were housewives.

Education status wise distribution

In the present study it was observed that most of the study population were illiterates constituting 75.5% and 24.5% were literates.

Similar findings were observed in the study conducted by Sheethal MP et al,[13] it was observed that majority of study population were illiterates (36.3%) followed by primary school education

(27.7%), high school education (20.7%), pre university education and degree.

Socioeconomic status wise distribution

In the present study it was observed that majority of study population belong to lower middle class (68%) followed by upper middle class (25.5%) and upper class (5.5%).

Habits wise distribution of the study population. In the present study it was observed that out of 200 individuals 46 (48.4%) males had history of smoking, this is followed by alcoholism who are about 32 (33.7%) in number and 17.9% have pan chewing habit.

Distribution of study population according comorbid conditions

In the Present study, diabetes 75% (30) was the most common associated comorbid condition. This is followed by hypertestion which constitute about 25% (10) of cases. In the study conducted by Syed Yousuf Ali et al,[2] it was observed that associated systemic ailments were observed in 133 (66.5%) patients. Diabetes was the most common with 69 (34.5%) cases, followed by hypertension in 46 (23%), 18 (9%) had both diabetes and hypertension which is in correlation with the present study.

In the study conducted by Leena Raveendra et al,[1] it was observed that, Fifty four percent of patients had associated systemic illness.

In the study conducted by the sanjivgrover et al,[11] it was observed that 64.5% cases had associated illnesses, most common among them was hypertension (40%) and diabetes mellitus (29.5%).

Similar findings were observed in the study conducted by Pragya A. Nair et al.[10] It was observed that Systemic diseases such as Hypertension, DM, Asthma, thyroid disease etc., were seen in 203 patients (44.43%). Among them Hypertension was the most common systemic disease.

Skin changes with ageing

In the present study it was observed that among study population, the skin changes with ageing were IGH 47.1% (8) followed by xerosis 35.3% (6) and senile comedones 17.6% (3). Greying of hair and wrinkles over face was seen in all the patients in present study 100%.

In the study conducted by Leena Ravendra,[1] IGH was present in 33% cases. Senile comedones were found in 28% cases and xerosis is seen in 93% patients. In a study conducted by P.Gunalan,[8] IGH was present in 33% cases, senile comedones were found in 28% of cases and xerosis is seen in 93% cases.

Distribution of study population according to Type of eczema

In the present study, ABCD 23.5% was first most common in eczemas followed by Allergic contact dermatitis which was second most common, which constituted 20.5% and Asteatotic eczema 17.6% was third most common. The high incidence of ABCD was due to the fact that the majority of patients were agricultural labourers and parthenium was observed to be the main offending plant.

The etiology for allergic contact dermatitis is due to decreased ability to produce the delayed type of hypersensitivity reaction in the elderly patients which in turn decreases their individual susceptibility. It was mainly seen in Housewives and agriculturers.

Stasis eczema constitute about 11.5%. The incidence of stasis dermatitis in our study may be because of associated xerosis and pruritus which is high in the patients of this study.

In the study conducted by SukhumJiamton et al,[4] it was observed that five most common dermatologic diseases in these elderly patients were eczematous dermatitis 161 (31.2%), infection 113 (21.9%), tumor 62 (12%), psoriasis 43 (8.3%), and hair disorders 27 (5.2%).

In the study conducted by Priya Cinna Durai,[7] it was observed that Lichen simplex chronicus, asteatotic eczema and contact dermatitis were more common in males than in females. These findings were similar to current study findings.

Distribution of study population according to Type of infections

In present study, fungal infections were the first most common which constitute about 50%. The high prevalence of fungal infections is due to low socioeconomic status and who are associated with low hygienic conditions. This is followed by viral infections which is the second most common and they constitute about 20.8%. This is followed by Infestations which constitute about 16.7% and the least common are the bacterial infections which constitute about 12.5%.

In the present study, among the viral infections, herpes zoster was the most common which constituted about 80%. The etiology is due to the decrease in cellular immunity in elderly patients which causes reactivation of the varicella zoster virus which usually causes herpes zoster infection in elderly patients.

In the study conducted by Syed Yousuf Ali et al,[2] a bacterial infection was present in 16% of cases, which is in correlation with the present study.

In the study conducted by Sheethal MP et al,[13] it was observed that among the various infections, fungal infection was the most common. These findings were similar to current study findings.

Infestations were found to be 16.7% in the present study and it included Scabies and pediculosis. Scabies alone constituted majority of this, about 75% of infestations. Increased frequency of scabies in the present study could be due to majority of population attending the department belong to the low socioeconomic status who invariably live in overcrowded areas with unhygienic surroundings which facilitate the spread of scabies.

Distribution of study population according to papulosquamous disorders

In the present study it was observed that among Papulo squamous disorders psoriasis (60%) was common presentation followed by lichen planus (30%) and oral lichen planus (10%).

In the study conducted by P. Gunalan et al,[8] it was observed that Papulosquamous disorders were seen in 42 patients (14%). 27 patients (9%) had psoriasis and 15 patients (5%) had Lichen planus.

In the study conducted by Dr. Krishna Talukdar et al,[9] it was observed that 7.8% of study population had papulosquamous disorders. Among them 4.2% had Psoriasis and 3.6% had Lichen planus. These findings were contradicting to current study findings.

Distribution of study population according to Benign Tumours of skin

In the current study it was observed that Cherry angiomas was the most common benign tumor which constituted 41.2% of skin lesions. Similar results observed in the study conducted by Dr. Krishna Talukdar et al,[9] Cherry angiomas constituted 58.3%, which is in correlation with the present study.

In the study conducted by Leena Raveendra et al,[1] it was observed that, No malignant or premalignant tumours were seen in this study. The incidence of benign tumours exceeds the number of cases because most patients had more than 1 type of tumour.

In the study conducted by P. Gunalan et al,[8] benign tumours noted were seborrheic keratosis, acrochordons, melanocytic naevi, and dermoid cyst. No malignant or pre-malignant tumours were noted in the study.

In the study conducted by Sheethal MP et al,[13] it was observed that seborrheic keratosis was the most common benign tumour. These findings were contradicting to current study findings.

Distribution of study population according to Type of Bullous disorders

In the current study it was observed that Among bullous disorders bullous pemphigoid (71.4%) was common and pemphigus vulgaris (28.6%).

In the study conducted by P.Gunalan et al,[8] it was observed that bullous pemphigoid was noted only in 1% (3) patients. These findings were contradicting to current study findings.

Distribution of study population according to Type of hypersensitivity reactions

In the current study it was observed that among hypersensitivity reactions there were 50% (5) cases of acute urticaria and 50% (5) cases of chronic urticaria.

In the study conducted by Sukhumjiamton et al,[4] urticaria was seen in 3.7% of cases. These findings were contradicting to current study findings.

Distribution of study population according to miscellaneous skin lesions

In the present study, Pruritus is the first common dermatoses. It constituted about 41.1%. About 13 patients in the present study had comorbid conditions like diabetes mellitus which may contribute to the development of pruritus.

In evaluating the older person's skin, the greatest problem is deciding what is abnormal and what is physiological. Xerosis was the most common physiological change seen in the present study in 35.3% of patients.

In the study conducted by Leena Raveendra et al,[1] it was observed that, Pruritus was the most common single complaint in 88 patients (44%). These findings were similar to current study findings.

Senile purpura was seen in 13.7% of patients, and is the second most common in miscellaneous dermatoses. SukhumJiamton et al,[4] and Priyacinna Durai et al,[7] reported an incidence of 2.7% and 5.9% respectively. The etiology may be due to increased fragility of the cutaneous capillaries due to lack of connective tissue support incidental with ageing.

In the present study, Post herpetic neuralgia is the third most common dermatoses in the miscellaneous skin lesions. It constituted about 11.7%. There was a clear increase in the incidence of Post herpetic neuralgia. This is probably because of inability of geriatric patients to take proper antiviral therapy.

In the present study, Miliaria was seen in 9.8 % cases. It is fourth most common dermatoses in the miscellaneous skin lesions. The high incidence was due to increased temperature and humidity in the study area during summer. Occlusive clothing results in increasing the severity of this problem.

In the present study, vitiligo constituted about 7.8%. This is consistent with study of Syed Yousuf Ali et al,[2] the incidence of vitiligo was found to be 6%.

In the present study keloid was least common. It constituted about 3.9%. In the study conducted by P.Gunalan et al,[8] which constituted about 2%.

Pellagra was seen in 3.9% patients. It was not reported from any other studies. The etiology may be related to under-nutrition and alcoholism. The low prevalence seen in our study was probably because better nutritional status of the subjects.

In the present study Acquired ichthyosis is seen in 3.9% of patients, Lichen amyloidosis and Erythroderma were seen in 1.9% of patients respectively. They constitute the least common among the miscellaneous skin lesions.

CONCLUSION

Geriatrics constitute an important group of the total population having different spectrum of cutaneous diseases. The Geriatric population is afflicated with a great many dermatological concerns, not only because of normal ageing process but the additional stressors acquired from the environmental causes. The present study brings into light the features of Geriatric dermatology such as high frequency of dermatoses like Pruritis, Eczemas and infections. Most of people aged >65 yrs have atleast one skin disorder, and many have two or more. The incidence of Geriatric dermatoses can be brought down by increasing awareness and literacy rates among the population regarding etiology and spread of diseases. Geriatric dermatoses can be brought down by improving sanitation, nutrition and personal hygiene. This study provides a preliminary baseline data for future epidemiological and clinical research. Knowledge about diseases prevalent in this age group

helps in better management thus improving the quality of life of elderly patients.

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