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Research Article

Study of cutaneous manifestations in geriatrics

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ABSTRACT

Background: Cutaneous signs and symptoms increases as the age advances. These are physiological as well as pathological changes. They can be due to systemic diseases present in old age.
Methods: All the 200 geriatric patients have cutaneous manifestations.
Results: Pruritus, eczema, stasis eczema, fungal infections were common. Diabetes was found in large incidence i.e. 27.5%, which show certain skin manifestations like pruritus, skin tag etc.
Conclusions: Poor hygiene and systemic medical related senile skin dermatoses are observed. A significant no. of diabetics an emerging disease in India, presented with skin manifestations, which cannot be neglected.

Keywords: Purpura, Xerosis, Pruritus, Infections, Diabetes

INTRODUCTION

This study is undertaken in a tertiary centre of a medical college in southern state of Maharashtra, India. In India, there are very few studies on "geriatric dermatoses," in contrast to many studies in western countries.[1]

India is "an ageing nation" with 7.7% of its population of more than 60 years old. This number may increase to 179 million in 2031.[1] Up to the year, 2050 the world population in this age group will be more than triple from 600 million to 2 billion, especially in developing countries.[2]

METHODS

The main objectives of this study

1. To study dermatological manifestations in geriatric population of above 60 years of age.

2. To study physiological & pathological changes including diabetes, benign & malignant skin conditions.

Methodology

Patients attending to dermatological OPD, 200 patients above 60 years of both sex included randomly. Master chart of details regarding the skin lesions /diagnosis & systemic diseases including diabetes are entered in a master chart excel sheet.

Study design

Prospective, observational, random, cross-sectional study in a period of June to December 2015.

RESULTS

Most of the patients have multiple skin conditions (i.e. 77.5% (155), so the total numbers of more than 200 in Table 3 and 4.

Table 1: Age group wise percentage.

Age groups (year)	Frequency	Percent	Valid percent	Cumulative percent
60-69	141	70.5	70.5	70.5
70-79	32	16	16	86.5
80-89	19	9.5	9.5	96
90 & above	8	4	4	100
Total	200	100	100	

Table 2: Age group wise diabetes.

Age group (year)	Diabetics	% in this age group
60-69	23	16.3%
70-79	16	50%
80-89	10	52.6%
90 & above	6	75%
Total	55 (27.5%)	Percentage increases as age group increases

Table 3: Commonly found major conditions

Group of diseases	Associated skin lesions or condition	Total of all conditions
Benign tumours	Acrocordon, Xanthelasma, Cysts, Sebo.-keratoses, Comedones, Nevi, Angioma	119
Malignancies	Basal-3, Squamos.-2	5
Infective + Infestations	Infective + Infestations	194
Fungal	Tinea, Candidiasis	75
Bacterial	Mixed vaginitis, Pyoderma, Foliculitis/Furunculosis, Active leprosy	72
Viral	Herpes zoaster	15
Allergic & auto-immune, autosensitisation	Exema/LSC, Seborrheic dermatitis, Psoriasis, Stasis exema, Vesiculobullous, Photo dermatitis, Vitiligo, Chronic urticaria	192
Pruritic	Scabies, Senile pruritus, Eczema, Stasis eczema, Psoriasis, Tinea, Candidiasis, Vaginitis, Chr. urticaria, Foliculitis, Seborrhic dermatitis, Erythroderma, Eczema	288

Table 4: Systemic diseases.

Age group (year)	Total count & % within group	Arthritis	COPD & asthma	HT	IHD	Liver cirrhosis	MB leprosy	Pellagra	Rheumatic disease	TB	Total No. & %
60-69	67 47.5%	10 7.1%	8 5.7%	22 15.6%	13 9.2%	6 4.3%	1 0.7%	5 3.5%	0 0.0%	6 4.3%	141 100.0%
70-79	10 31.3%	6 18.8%	1 3.1%	5 15.6%	5 15.6%	1 3.1%	0 0.0%	0 0.0%	1 3.1%	1 3.1%	32 100.0%
80-89	3 15.8%	8 42.1%	1 5.3%	2 10.5%	2 10.5%	1 5.3%	0 0%	1 5.3%	0 0.0%	0 0.0%	19 100.0%
90 & above	1 12.5%	6 75.0%	0 0.0%	1 12.5%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	8 100.0%
Total	81 40.5%	30 15.0%	10 5.0%	30 15.0%	20 10.0%	8 4.0%	1 5%	6 3.0%	1 5%	7 3.5%	200 100.0%

DISCUSSION

In this study, out of 200 patients, maximum no. is in age group, 60-69 years is 70.5%, followed by 16%, 9.5% & 4% as the age group advances. Gender wise difference is low, i.e. male are 6% more than female.

22.5% (45) are having a single skin condition, while remaining 77.5% (155) patients are outnumbered with

more than a single lesion. 59% (118) patients are having systemic diseases. 55 (27.5%) patients are diabetic. Followed by hypertension (15.5%), arthritis (14.5%), IHD i.e. ischemic heart diseases (10%), asthma (5%), TB & liver cirrhosis (3.5%), pellagra (3%). Internal malignancies are only 2%, approximately matching with the Indian study by Patange & Fernandes in Mumbai, India.[3] Physiological changes are common as the age advances. The benign tumours 119 observed are common, S/O ageing changes are similar to as above study.[3]

Purpura found in largest numbers i.e. 30.55% (61), increases with age. This incidence is in accordance with study by Arun and Gandhi M, Hariyana, India.[4] It is due to anti-platelet drugs in geriatrics.

Fungal infections are higher in this study, 21% had *Tinea*, including *Candida* 16.5% infections, totalling to 37.5%. This higher incidence is due to poor hygiene, un-affordability to treatment.[2,3] Out of 55 patients, 28 had fungal infection, which is a common in diabetics.

Pruritus, 20.5%. It is secondary to dryness due to physiological changes, xerosis, malnutrition & neglecting the hygiene.[3,4] In this study, diabetes (27.5%) is remarkable, which is again a common cause. Delusion of parasites, i.e. parasitophobia, can cause pruritus in elderly.[5,6] Psychosomatic depression triggers pruritus, so psychiatric intervention is helpful.[4] Pruritus and exema are leading diseases, due loss of stratum cornium barrier plus decrease in lipid contents in stratum cornium.[7]

Stasis eczema, is seen on most dependent parts below due to scratching, inflammation, bed ridden & varicosity.[4] Here 19% incidence of varicose veins eczema is much less than that noted by (48%) Tindall and Smith.[1]

Eczema i.e. lichen simplex chronicus (LSC) is 16.5%. The seniors use multiple skin medications, which may give rise to allergic exema.[4] This incidence is smaller than 31% patients in study by Patange and Fernandez, varying with of 11.9%-58% and with the study by Beauregard and Gilchrest.[1,2] Scabies (16%) and mixed vaginitis was 15.55% because of poor care taken by relatives of geriatrics hygiene. Foliculitis/ furunculosis (13.5%), common in diabetics as they are prone for infection. Psoriasis, autoimmune multi-factorial disease found in 11% (22) patients. Most of them are with arthritis. Psychic stress is associated with exacerbation of psoriasis.[8,9]

Vitiligo, is present in India with variable incidence between 1.2% to 19% & 3-4% overall.[3] In this study, 10.5% patients co-relates with, Patange and Fernandez study showing 19% incidence. Vitiligo is higher in Indian patients.[1,3]

Seborrheic dermatitis is due to auto-sensitization & secondary infection.[4] Here 7% patients, remarkably more in female i.e. 10 out of 14 patients with average age of 69 years in women, may be because of auto-sensitization due to ornaments in ears and neck, they wear.

Photo dermatitis including PLE found in 4% patients. Chronic urticaia 6.5%, has association with the vesiculobullous (3 out of 5) diseases.

Sexually transmitted (STD) 2.5% patients, all below 65 age & of viral cause, as viral STD are common in today's era. Leprosy 1%, both is MB patients. PLE found in both pts on clofazimine. Vesiculobullous 5 (2.5%), 3 has internal malignancy S/O paraneoplastic nature.[10] This correlates with study of Raveendra L in Karnataka (India) in 2014.[1] In Indians the skin carcinomas & internal malignancy is too low than western countries. Herpes zoster, in 7.5%, immune status due to nutrition, is most observed cause. Melasma 17.5%, Pellagra 3%, erythroderma 2% due to drug reaction, improved after the offending drug withdrawn.[10]

Seborrhiec keratosis 15%, found commonly observed in diabetics & it increases with age. It is less than findings in study (56%), by Raveendra L, Bangalore, Karnataka, India.[1] Cherry angioma 4.5% (9 patients), which is less than in comparison with study by Patange and Fernandez i.e. (37%).[1] Angiomas common in liver cirrhosis, i.e. 4 out of 9. Xanthelesma 3.5%, 5 out of 7 has IHD due to lipidemia. Nevi, 10%, lower than the other studies of 32.5%).[1,3] Senile comedones are 13% (26), less than 28% to 95.6%-81% in various studies.[1,3] Cysts 7.5% (15), achrochordon 16% lower than other 20% to 32%.[3] Diabetics here found more association of skin tags, which can be marker of diabetes.[11]

Skin carcinoma, are less i.e. 2.5%. They are rare in Indians, due to racially pigmented skin rich in melanocyte. Decreased DNA-repair capacity, increases the carcinogenesity.[2] This is in contrast to study in chiana.[12]

Diabetics in above study, 27.55% is a large incidence, because this is a tertiary institute. Most of them has multiple skin conditions, some common are, pruritic-135, benign tumours (skin tag, angioma, comedones etc.) are in 69 patients, bacterial 40 & fungal 28 patients. Acrocordons, seborrhic keratosis, pruritus, these are markers of diabetes, in 3 different Indian studies. Autoimmune conditions are 38 including 5 vitiligo patients. So diabetes has co-relation with above skin diseases.[3,11,13]

CONCLUSION

Since geriatric dermatology is emerging branch in 21st century, update of skin manifestations is required. Senile pruritus, eczema, stasis eczema, fungal infections, diabetic associated skin lesions & benign tumours (59.5%) are leading conditions. No. of benign tumours

and physiological changes are variable, but malignant changes are minimal.

Skin manifestations are associated with diabetes a commonest systemic disease in geriatrics & some are markers of it.

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