



Dermatological problems in geriatric patients: a hospital based study

KEYWORDS

age, geriatric, skin dermatoses

Dr N.L.Sirisha

Assistant professor,
Department of DVL, RIMS,
Kadapa.

Dr M.Pavan Kumar

postgraduate student, Department of
DVL, RIMS, Kadapa

Dr S.Sowjanya

postgraduate student, Department of
DVL, RIMS, Kadapa

ABSTRACT

BACKGROUND : Geriatric health care has become a worldwide concern. In this study, we set out to determine pattern and frequency of dermatoses in dermatological patients aged 60 years and above.

MATERIALS AND METHODS : The outpatient clinic records of the department of dermatology Rajiv Gandhi Institute of Medical Sciences (RIMS) Kadapa, dated between 1 March 2014 to 1 March 2015 were retro-spectively assessed and patients of 60 years and above were enrolled.

RESULTS : a total of 937 patients 349 (37.2%) were female and 588 (62.8%) were male. The female to male ratio was 0.59. The most commonly seen diseases were eczema (22.4%), fungal infection (9%), urticaria (8.6%), followed by pruritus (7.3%) and viral infections (7.1%).

CONCLUSION : skin disorders especially contact dermatitis and fungal infections were found to be common in the study region. General awareness is critical in minimising the incidence of dermatological disorders.

INTRODUCTION :

In the most countries of the world, the proportion of people of over 60 years old is growing faster than any other age group: this fact is happening as a result of both longer life expectancy and also of what we can determine as the declining fertility rates. 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 aging skin giving rise to spectrum of diseases such as xerosis, pruritus, eczema, psoriasis¹. These dermatoses which are rarely fatal can lead to significant morbidity and affect quality of life². A decrement in the number of dermal collagen and elastic fibers and a thinning of nails are also seen.

The current study aimed at evaluating the pattern and frequency of dermatological diseases in patients over 60 years of age in Kadapa

MATERIALS AND METHODS:

We conducted a retrospective study in outpatient department of Dermatology, RIMS, Kadapa. We enrolled patients of 60 years and above who visited our department in the Kadapa (March 2014-March 2015). The data was retrieved from the registers maintained in

the department including age, sex, place, and diagnosis. The aim of the study is to determine the characteristic pattern and frequency of dermatoses in dermatologic patients aged 60 years and above.

RESULTS :

There were total of 8545 patients who visited out patients department in RIMS, Kadapa. Out of which frequency of geriatric patients were 937, which constitute about 10.8%. The male to female ratio was 0.59. The minimum age was 60 years and maximum 97 years. The most common cutaneous dermatoses was eczema 22.4% out of which asteatotic eczema was found to be highest among eczema and

contributed 40.67%, followed by seborrhoeic dermatitis 19.3% others were lichen simplex chronicus 10.9%, atopic eczema 3.3%, xerotic eczema 10.9%, hand eczema 3.3%, allergic contact dermatitis 5.2% and Irritant contact dermatitis 4.3%. The second most common disease was fungal infection, which constituted 9%. Elderly patients presented with different types of Dermatophyte infection as *T. corporis* 30.5%, *T. pedis* 22.2%, *T. unguis* 13.7% and *T. cruris* 20.1% and *T. incognitum* 9.1% and *T. manuum* 4.2%. *T. corporis* was common among fungal infection.

Urticaria was found in 8.6%. Pruritus was found in 7.3% Viral infection contributed 7.1% including herpes zoster, post herpetic neuralgia, warts, herpes labialis. Herpes zoster was the most frequent presentation in elderly patients and constituted 55.1% followed by post herpetic neuralgia 31.7%. scabies was found in 5% Photodermatitis contributed 4.3% alone out of the total dermatoses found in geriatric patients and was found to be more common in females Bacterial infection including folliculitis, carbuncle, cellulitis constituted 4.2%, Inflammatory papulo squamous disorder (Psoriasis, lichen planus) 4.1% Ichthyosis 2.4%, pigmentary disorder (vitiligo and Post inflammatory disorders) 2.3% neoplasm (2.1%) vesiculobullous 1% (pemphigus, bullous pemphigoid), and Miscellaneous group contribute 20.2% including prurigo nodularis 42%, Plantar keratoderma 16.9%, callus 19% Hansen's disease 8.4%, Rosacea 5.6%, diabetic

ulcer 5.2%, senile acne 1%, Pellagra 1.9%. The distribution of dermatoses, is given in Table-1. The distribution of skin dermatoses according to sex is given in Table-2

DISCUSSION :

Geriatric age groups are increasing specially in western developed countries, and elderly patients being admitted in the dermatology clinics each year³. The population is getting older according to current U.S. Census statistics. As elderly get older, an increased

emphasis on geriatric medicine is inevitable⁴. This study represents eczema as most common dermatoses found in elderly which constitute 22.4%. Higher frequencies were found in study by Yab et al 35.8%, Thaipisuttikul 34.9% and Liao et al respectively⁵⁻⁷. There are studies done in Turkey, Tunsania, and Croatia where eczema was found to be lower in frequency.(11.1%, 11.9% and 16.6%) respectively⁸⁻¹⁰. Elderly patients are more prone to

Table-1 –distribution of skin dermatoses inn elderly

Diagnosis	Frequency (%)
Eczema	210 (22.4%)
Fungal	84 (9%)
Urticaria	81 (8.6%)
Pruritus	68 (7.3%)
Viral	67 (7.1%)
Parasitic	47 (5%)
Photodermatitis	40 (4.3%)
Bacterial	39 (4.2%)
Inflammatory dermatoses	39 (4.1%)
Ichthyosis	23 (2.4%)
Pigmentary disorders	22 (2.3%)
Neoplasm	19 (2.1%)
Vesiculobullous disorder	9 (1%)
Miscellaneous	189 (20.2%)

Table -2 –distribution of skin dermatoses according to sex

Diagnosis	Female	Male	Total
Eczema	106	104	210
Fungal	30	54	84
Urticaria	41	40	81
Pruritus	25	43	68
Viral	21	46	67
Parasitic	17	30	47
Photodermatitis	14	26	40
Bacterial	12	27	39
Inflammatory dermatoses	13	26	39
Ichthyosis	7	16	23
Pigmentary disorders	8	14	22
Neoplasm	3	16	19
Vesiculobullous disorder	2	7	9
Miscellaneous	50	139	189

minor ailments for which they apply irritants in the form of creams, herbal which are locally easily available and hence are prone to eczema. As farming is a common occupation elderly people are exposed to changes in temperature, contact with various allergens as well as aging related process are possible factors responsible for higher frequency of eczema in our study. It is more common in females, which may be due to contact with soap, detergents and environmental pollutants during household works like washing utensils and clothes.

Infectious dermatosis is commonly seen in elderly patients. Several factors, including impaired immune function, thinning of skin, dryness and decreased blood flow, lead to delay in the healing process. In addition, an epidermal damage secondary to itching, which is more common in the elderly, enhances bacterial entrance into the skin^{1,11-12}.

The frequency of fungal infections was 9% and viral infections was 7.1% in our study. However, the frequency was 38% and 12.3%, respectively in another study⁷. Fungal infection was common in males in comparison to females. Males are more prone to physical trauma and hence to infection due to active outdoor activities. Decreases in personal care, epidermal turnover, and immunologic functions are possibly responsible for the high prevalence of fungal infections¹³. Factors like poor hygiene, neglect and overcrowding also contribute to infections. Studies by Yap et al, Kilic et al, Souissi et al, Furue et al and Yalcin et al also found infection common in elderly^{5,9,14-16}.

Of the viral infections, herpes zoster (55.1%) and post-herpetic neuralgia (31.7%) were frequently seen. In previous studies, herpes zoster was the most commonly seen, followed by warts. The frequency of herpes zoster, were 78.4%, in one study¹⁵. The reactivation of varicella zoster virus usually causes herpes zoster infection in elderly patients^{11,17}. Due to the weakening of the cellular immune system and delay in the healing process, the recovery time from the zona zoster infections can be longer in elderly patients. Additionally, post-herpetic neuralgia usually is not encountered in patients below 40, but is seen in about 50% of the patients over 70.

Itching is a common symptom in elderly people. The itching in elderly people is related to skin dryness. The frequency of pruritus was 7.3%. Itching and skin dryness increases with aging that is related to decreased secretion activity of adipose tissues and sweating glands, and not using moisturising cream after having Frequent and

warm baths. Skin dryness increases especially in winters. The ways to prevent skin dryness include decreasing the frequency of having baths, minimizing the use of soap, avoiding the use of a coarse bath-glove, and using moisturizing cream after having baths. If the patient with itching does not respond to general preventive approaches and moisturising cream, the patient should be investigated for systemic diseases.

The risk of developing melanoma and non-melanoma skin cancers significantly increases with aging. This is related to several factors, including decreased DNA-repair capacity, decreased immuno-surveillance, and accumulation of carcinogenic material during aging. In the previous studies, the frequency of neoplasm 2.1% The most important etiologic factor for skin cancer is sunlight exposure. The duration of exposure to sunlight is longer in the elderly people than the younger lot, and they develop more damage against ultraviolet light due to decreased melanocytes. Therefore, the incidence of skin cancer is higher in the elderly population. In our study, the frequency of benign and malignant skin tumours (2.1%) was lower than the previous studies.

Aging is a process where both intrinsic as well as extrinsic factors produce structural as well as functional changes, which can lead to spectrum of diseases in elderly. This study has certain limitations but depicts various characteristic patterns of dermatoses seen in elderly. Eczema and infections was found to be most common diseases seen in elderly. Further epidemiologic studies including treatment, follow-up of elderly patients has to be carried out to know the burden of the disease and decrease morbidity and psychological concern associated with diseases

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