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# **GERIATRIC PRURITUS- AN OBSERVATIONAL STUDY.**

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#### Abstract

**Background**: Geriatric population has seen a progressive rise over the years due to improving healthcare facilities and socioeconomic parameters. Pruritus along with other geriatric dermatosis, are also more prevalent.

**Aims and objectives**: To determine the pattern of pruritus in geriatric subgroup of our population **Material and methods**: This study involving 300 patients of over 60 years of age presenting with pruritus, was conducted in the outpatient department (OPD) of dermatology of a secondary care centre. A detailed history and examination of cutaneous and systemic complaints, was done. Diagnosis was done on clinical assessment, and investigations were done whenever required. All the findings were recorded and analysed.

**Results**: Out of the total of 300 patients, 168 were males as compared to 132 females (1.3:1). Mean age was 68.32 + 4.21 years, with majority belonging to under 70 years of age (60.66%). Although eczematous disorders were the commonest (35.33%) association of pruritus, it was also idiopathic in a significant number (20.66%) of patients. Xerosis was noted in 61.33% of patients. Systemic complaints were present in 168(56%) patients, hypertension (25.66%) being the commonest.

**Conclusion**: Pruritus is a common and distressing complaint among geriatric population and requires enhanced awareness and proper management.

Keywords: skin, geriatric, pruritus, ageing, comorbidities

## Introduction

The geriatric population is composed of persons above 60 years of age in India, however this cutoff may vary in different parts of world[1]. Indian population census data 2011 reports 104 million Indians above the age of 60 years, making 8.6% of total population.[2] Further, it is projected to increase to 10% by 2021 and even expected to double by 2026. Improvement in health and socioeconomic parameters, has led to progressive increase of this group of population, in all parts of the world.[3,4]

With increasing geriatric population, their health care is getting increased attention. Their health problems are usually multiple and often masked by neurological and other deficiencies and impairments. [5,6] Skin being the largest and first visible organ to come in contact with environmental insults as well as intrinsic changes, makes it structurally and functionally weak and susceptible to age related disorders. [7]

Elderly people commonly present with pruritus. Multiple intrinsic and extrinsic factors interact in its etiopathogenesis.[8] Clinically it may be associated with an overt dermatosis, subtle xerosis, or a systemic disorder, with significant morbidity and thus impairment of quality of life.[9] It can even be the presenting symptom of a fatal internal disease.[10,11]. It also poses a diagnostic difficulty due to atypical presentations, difficult history taking, delay in seeking medical help, interference due to multiple comorbidities and medications. [10]

This study was conducted to detect pattern of pruritus in geriatric group in a sample of our population. Being aware about this is important, both for planning of preventive measures and prompt management of pruritus.

## Material and methods

This was a hospital-based cross-sectional study conducted over a period of 18 months in the Dermatology out- patient department (OPD) of a secondary health care center, in a rural area. Three hundred consecutive patients, aged above 60 years complaining of pruritus, were enrolled in the study after informed consent. A detailed history of cutaneous and systemic complaints was noted. A general physical and cutaneous examination was done. Diagnosis was done on clinical assessment and investigations such as CBC, LFT, KFT, urine examination, blood sugar, lipid profile, skin smears, scrapings, nail clippings and skin biopsy was done whenever required. Histopathological examination of skin was not possible in our center, and was thus referred to the nearest tertiary care institute. The presence and association with systemic findings was also sought. All the findings were recorded in predesigned forms and tabulated in the form of a master chart in Microsoft Excel Worksheet. Analysis of data was done using SPSS software.

#### Results

Total of 300 patients were included in the study out of which 168 were males as compared to 132 females (1.3:1). Mean age was 68.32 +4.21 years with majority belonging to under 70years of age (60.66%). Pruritus was the primary presentation, however secondary symptoms were observed in majority of the patients.(Table-1). It was associated with eczematous rash in most (35.33%) of the patients. (Table-2) Infestations especially scabies was also a common cause. Among infections fungal infections contributed the most. Post-herpetic neuralgia also presented as localized pruritus. However, in 62(20.66%) patients, no visible association was observed. Xerosis was also noted in about 184 (61.33%) patients, however it was not a presenting symptom in most of them.

Patients also attributed their pruritus to their comorbidities and medications. These systemic complaints were present in 168(56%) patients and 229(76.33%) patients were on some form of medication. Commonest systemic complaint was hypertension (25.66%) followed by diabetes mellitus (19.33%). 62 (20.66%) had more than one comorbidity.

Sno	Dermatosis	No	М	F	<70	>70
1	Eczemas		58	48	79	27
		106				
2	Idiopathic pruritus	62	36	26	23	39
3	Infections	49	29	20	26	23
4	Infestations	31	18	13	14	17
5	Papulosquamous disorders	22	12	10	17	5

Table-1 Pruritus - association	S
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6	Drug rash	13	7	6	10	3
7	Urticaria	10	6	4	7	3
8	Bullous disorders	3	2	1	2	1
9	Miscellaneous	4	2	2	4	0

S/no	Туре	Number
1	Allergic contact dermatitis	29
2	Photodermatitis	21
3	Lichen simplex chronicus	14
4	Asteatotic dermatitis	13
5	Sebborheic eczema	11
6	Atopic dermatitis	5
7	Irritant contact dermatitis	3
8	Others	10

#### Table 2 Eczemas

### Discussion

The size of geriatric population has increased over the years with increase in life expectancy due to improving healthcare facilities and socioeconomic parameters. Geriatric medicine is therefore, currently getting its significance. However, geriatric dermatosis are still neglected at times by the health care workers, caregivers and even patients themselves, and present at a later stage to hospitals. Besides the physical morbidity, these disorders also have a significant impact on mental health of a patient. Therefore, proper management of these disorders being essential, also requires enhanced awareness and knowledge about their pattern and prevalence.

The present study emphasizes the increasing importance of geriatric health. The study involved 300 patients with pruritus, above age of 60years, which constitute the geriatric population as per the WHO definition.[1] The patients in our study constituted about 4.27% of cases attending dermatology OPD in the same period. This was higher than some previous studies,[12,13] probably due to better accessibility of our hospital to the study age group, being a secondary health care centre in a rural area. Majority of the patients in our study, were males and belonged to the age group of below 70 years, emphasizing the lack of accessibility of healthcare to females and patients above 70 years. Similar observations were also made in most of the previous studies involving the same population subgroup. [14-18] However with further increase in life expectancy, above 70 years age group will increase and pose newer challenges of availability and accessibility of health care.

Pruritus is a common presentation in geriatric population. It has a variable prevalence in previous studies with a range of about 11.5% to 78.5% in this age group. [14,16,17,19,21, 23-26] This large range of prevalence can be attributed to cultural and climatic conditions. It is not a trivial symptom, and has a detrimental effect on quality of life of elderly population. It leads to irritation, insomnia and even depression. Its effect on quality of life has been even shown to be similar to that of chronic pain.[27,28]

Pruritus was multifactorial. Some had an underlying chronic eczema or atopic diathesis. Eczema was seen in 35.33% of total patients. Eczemas were prevalent in similar range in other studies involving similar age group. [12,14,15,16,19] Allergic contact dermatitis followed by photodermatitis were the commonest types, mostly occupational (maximum being involved in apple and paddy farming). The increased prevalence of contact dermatitis in geriatric population, may be due to increased sensitivity to allergens, secondary to dysfunctional barrier function of epidermis in them. Similarly Agarwal et al also observed allergic contact dermatitis as the most common type.[19] However others have observed lichen simplex chronicus as the commonest, [14,16] and some seborrheic dermatitis.[20] Lichen simplex chronicus was a common presentation in our study also. Infections, particularly fungal infections were also associated with pruritus. Predominance of infections in this population subgroup points towards weaker immunological status as well as inability to maintain personal hygiene. Scabies was the other common disorder seen. However in many cases due to atypical

presentation it was wrongly treated as asteatotic dermatitis and sometimes even as psychological pruritus.

Xerosis was also a common complaint, seen in 184 patients (61.33%) and was associated with asteatotic eczema in some and generalized pruritus in most cases. Skin is dry and atrophic at this age and use of harsh soaps, hot bathing water and dry weather conditions, further aggravates it. Thus being rough and scaly with breaks in continuity, makes it vulnerable to various dermatosis. Its prevalence in our study was comparable to studies done by Aggarwal, Rathore and Chopra et al. [19,29,30] However some studies have observed higher, [14,26] and some lower prevalences for xerosis.[15,17,31] Some patients with generalized pruritus but no cutaneous lesion, gave history of systemic diseases and multiple medications. Diseases like diabetes mellitus, thyroid disorders, chronic renal and liver dysfunction, neuropathies, malignancies such as lymphoma and leukemia, anemia, polycythemia vera, and multiple medication use have also been associated with pruritus.[17,32,33]

These systemic comorbidities were present in 168 patients (56%). Most common systemic association was that of hypertension and its medication (25.66%) followed by diabetes mellitus (19.33%). Other comorbities seen were hypothyroidism, anemia, arthritis, BPH, glaucoma etc. Similarly some studies have observed hypertension to be the most common comorbidity, [9,12, 16,22] however some have observed diabetes mellitus to be the commonest.[15,26,34,35]

Still a large percentage of patients had pruritus without any elicitable cause (5.33%). Most of these either had no or temporary response to antiallergics or topical medications. Some were steroid dependent, started as self medication or prescribed by local practitioners. One of the patients with history of acute pruritus was responsive to high dose steroids only. She later sequentially developed urticarial, eczematous and bullous lesions, and was proved to be linear IgA dermatosis on biopsy and responded to dapsone.

To conclude, although geriatric patients present in dermatology OPD with variable presentations, pruritus is the commonest complaint. Increased awareness and knowledge about its pattern and prevalence, can lead to better management, and enhance quality of life of this sub-group of population.

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