

Clinicodemographic Profile of Patients with Psoriasis in Elderly Population in a Tertiary Care Centre

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Abstract

Aim: To study the clinic odemographic features of psoriasis in elderly population, **Materials and methods:** This is a cross sectional study carried out in geriatric patients with psoriasis. The detailed history and examination were done and the clinicodemographic data was collected. Patients were also subjected to routine blood investigations like fasting Blood Sugar, Post Prandial Blood Sugar & fasting lipid profile to rule out any underlying undiagnosed co-morbidity. **Observation:** A total of 120 patients were included in this study. Most of the patients (87%) had a new onset on psoriasis at an elderly age (onset after 60 years of age, n =104) whereas only 16 patients(13%) had early onset in adulthood. This study showed a female preponderance (F= 68; M=52). The most common type of psoriasis seen in this study was psoriasis vulgaris followed by palmoplantar, palmar, plantar, scalp, plantar and guttate psoriasis respectively. Family history was uncommon and was seen in only 4 patients. Most of the patients with hard labour had palmoplantar involvement suggestive of long term subclinical inflammation as a trigger to psoriasis. Co-morbidities were less common, only 18%(n=22) had co-morbidities. Nail involvement was seen in 21 patients out of which nail changes specific to psoriasis was seen in 8 patients, **Conclusion:** Psoriasis should not be regarded as a single organ involvement and the treating physician should look for the associated co-morbidities and also make necessary lifestyle changes for appropriate management. Most of the patients in this study were still working comprising of some form of physical labour, in spite of being elderly that correlates with the lower incidence of co-morbidities in this study. Subclinical trauma for long duration can act as a trigger or koebner phenomenon for psoriasis. Further studies on a larger scale need to be done to elucidate the association of occupation and type of clinical psoriasis.

Introduction:

Psoriasis is a chronic, immune mediated, recurrent inflammatory dermatoses of the skin with well-established association with other autoimmune disorders, multisystem involvement & co-morbidities.^{[1][2]} This lifelong disorder, can occur at any age however it has 2 peaks – 15 to 30 years and 50 to 60 years.^[3] The morphological types of psoriasis are same irrespective of the age however their incidence, severity and complications vary. Adult onset psoriasis have greater association with severe forms of psoriasis and co-morbidities when compared to the elderly onset psoriasis. Scaling, induration, nail involvement, co-morbidities & tendency towards the severe forms of psoriasis are lower in psoriasis of elderly when compared to the adult onset.^[4]

Materials and Methods:

This is a cross sectional study carried out at Chettinad Hospital and Research Institute for a period of 1 year from October 2022-september 2023. All the patients above 60 years of age attending the Dermatology out patient department diagnosed with psoriasis irrespective of the onset were included in this study. After getting informed consent detailed history of the demographic data like the age, sex, occupation, family history, type of psoriasis, associated co-morbidities and nail involvement were recorded. Patients were investigated for Fasting Blood Sugar, Post Prandial Blood Sugar, fasting lipid profile to find out any underlying undiagnosed co-morbidity. Blood pressure was recorded at the visit.

Results:

A total of 120 patients were included in this study. The most common age group that was affected in this study was 60-70 years 90%(n = 27) and 10% of the patients belonged to the age group was 70-80 years and no patients were seen with psoriasis above 80 years of age. The lowest age noted was 60 years and the highest was 72 years old. There was a female preponderance with 57%(n=68) of females and 43% of males (n=52).

Psoriasis is a chronic disease which can occur at any age like childhood, adult or geriatric onset. In our study, Most of the patients (87%) had a new onset on psoriasis at an elderly age (onset after 60 years of age, n =104) whereas only 32 patients(27%) had onset of psoriasis at 40-60 years of age. None of the patients had childhood or adult onset (15- 30 years of age) of psoriasis.

Family history was not common in our study in which only 4 patients had a positive family history.

The most common type of psoriasis in this study was found to be psoriasis vulgaris followed by palmoplantar, palmar, plantar, scalp, plantar and guttate psoriasis respectively as shown in figure 1 and table 1 shows the clinical types of psoriasis of which psoriasis vulgaris was the most common form of psoriasis followed by

palmoplantar psoriasis. Figure 2 shows palmar involvement in a patient with palmoplantar psoriasis. The most common site involved was palmoplantar region as shown in table 1. Isolated involvement of palms(10%), soles(3%) and scalp(7%) were less common. No cases of severe forms of psoriasis like the erythrodermic psoriasis or pustular psoriasis were seen.

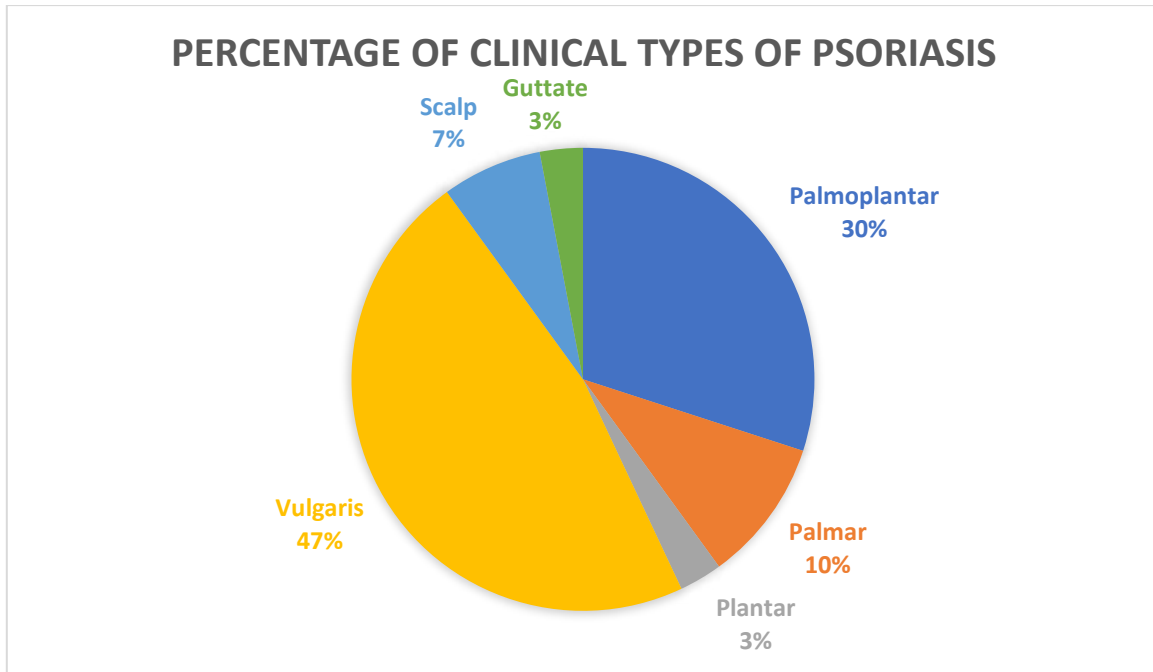


Figure 1: Shows the clinical types of psoriasis in this study

Table 1 : Shows site involvement in geriatric psoriasis

SITE	NUMBER OF PATIENTS(n)
<i>Palms and soles</i>	36
Scalp	28
Face	0
Extensors of joints	28
Limbs	16
Trunk	16
Palms	12
Soles	4



Figure 2: Shows palmar involvement in a patient with psoriasis

Most of the patients were working even though they were above 60 years of age patients and only 11 were retired personnel. Amongst them, most of the patients were farmers, housewives and daily wage workers. 63% of the patients worked for 4-8 hours, 27% of the patients worked for >8 hours a day and 10 % worked for <4 hours a day as shown in table2. Most of them had hard physical labour. This correlates with the BMI of the patient in this study in which 56% had normal weight , 20% were underweight , 17% were over weight and only 7% were obese as shown in figure 3.

Table 2 : Showing the occupation of the patients with elderly psoriasis

Occupation	Number of patients	< 4 hours	4-8 hours	>8 hours
Retired personnel	11	11	0	0
serviced personnel	13	0	10	3
Daily wage worker	22	2	8	12
Farmer	36	0	27	9
Housewife	38	0	30	8

Total	120	13	75	32
Percentage	100%	10%	63%	27%

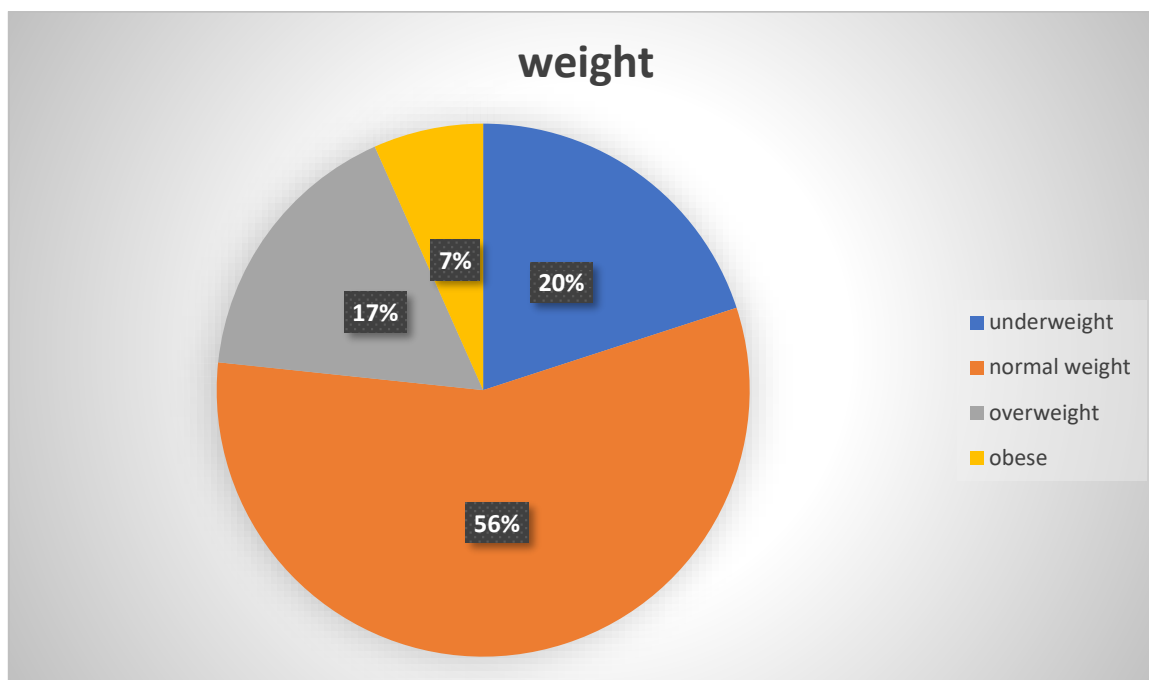


Figure 3: Shows the BMI of the patients with psoriasis in geriatric patients

In this study, only 15 patients had co-morbidities. 12 (10%) patients had diabetes and hypertension, 4 (3%) had hypertension, 5 patients had only diabetes (4%) and only 1 (0.8%) patient had hypothyroidism. None of the patients had dyslipidemia or psoriatic arthritis. However osteoarthritis was a common complaint.

Co-morbidities due to the poor socioeconomic status, most of the patients had to stick to their stable diet and to earn their livelihood had to work for 4-8 hours. May be this is the reason they are of either normal or underweight and have minimal co-morbidities. Hence, lifestyle and physical activity play a major role in contributing to the severity of the disease.

The most common nail finding in this study was trachonychia which can occur as a sign of aging as well. The psoriasis specific nail changes like Pitting (20%), subungual hyperkeratosis (13%), onycholysis (10%) and salmon patch (7%) were seen

in the order of decrement as shown in figure 4.

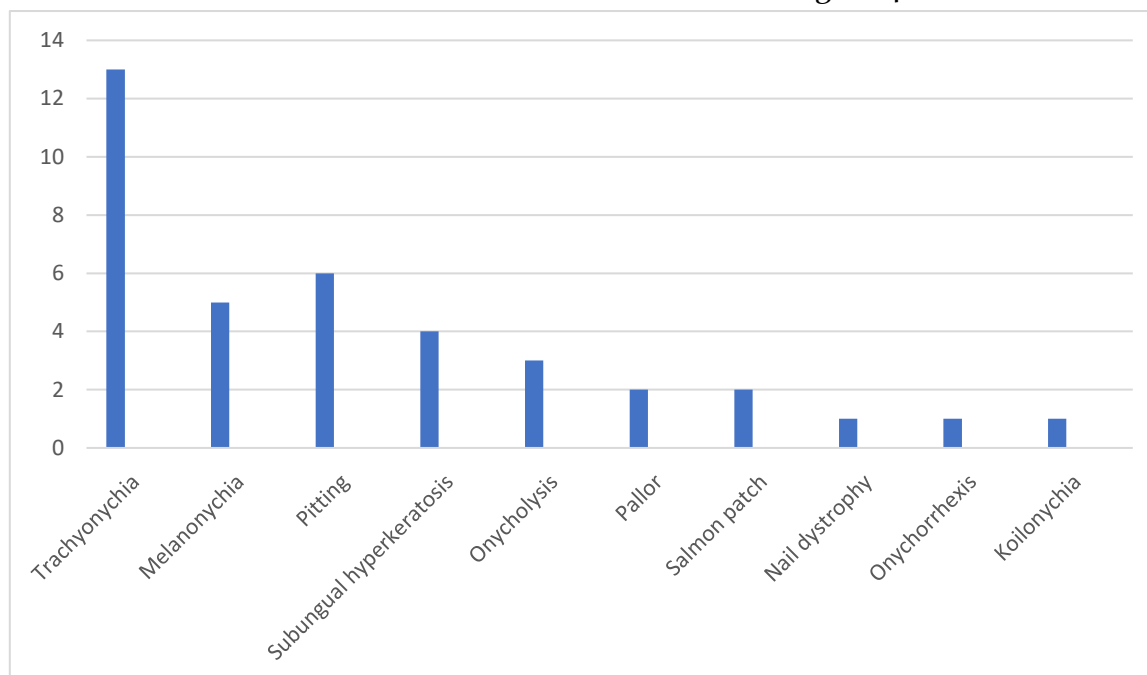


Figure 4: Shows number of patients with elderly psoriasis showing nail involvement

Discussion:

A person is defined as elderly by the National Policy of older person as people who are > 60 years of age.^{[5][6]} India has the second largest elderly population(140 million) which is growing rapidly and is estimated to grow by 19% by 2050.^[7]The burden of psoriasis, which forms the 6th commonest skin disorders in patients above 65 years of age is also prompted to increase.^[8]In this study 90% of the patients presented in the age group of 60-70 years. Similar findings were demonstrated in other studies.^{[9][10][11]}

Psoriasis is a multisystem disorder which can be associated with psychosocial , metabolic, arthritic , cardiac , cerebrovascular & ophthalmic involvement. In this study, only 18% of the patients had co-morbidities in the form of diabetes , hypertension or both which correlates with other studies.^[12-16]

In this study,in spite of being older in ageonly 11 patients were retired while the other 109 patients continued to do work. Most of them were farmers and housewives. 80% of the patients belonged to a lower socioeconomic background with a lifestyle that demands extra physical work to earn their living & unaffordability due to which they stick to their staple diet & cant consume fast foods. Due to the above mentioned reasons most of the patients were of normal or underweight and only 7% of the patients were obese.

In this study, most of the patients were farmers (30%),housewives(32%) and daily wage worker(18%) had prolonged usage of their hands for work in the form of

excessive water/fertilizer exposure or labour leading to microtrauma. This long term microtrauma could have been a precipitating factor acting as koebner's phenomenon leading to the increased incidence of palmoplantar psoriasis in these patients. This can also be explained by the fact that patients with psoriasis experience deep koebner's phenomenon due to altered mechanical response and subclinical inflammatory changes.^[17]

Most of the patients i.e 87% had new onset of psoriasis which is > 60 years of age and the incidence of these co-morbidities increases with age. How psoriasis affects the pre-existing co-morbidities and the advent of new onset of co-morbidities requires further studies on a larger scale. Some studies suggest that psoriasis shortens the lifespan of patients by 4 years and maybe up to 10 years.

Obesity is regarded as a low-grade inflammatory disorder that is a precursor that predisposes to several other inflammatory disorders including psoriasis.^[18] Incidence of psoriasis is proportional to BMI.^[19] Lifestyle modification and physical activity can aid in reducing the burden of psoriasis.^{[20][21]}

Conclusion:

Psoriasis should not be regarded as a single organ involvement and the treating physician should look for the associated co-morbidities and also make necessary lifestyle changes for appropriate management. Most of the patients in this study were still working comprising of some form of physical labour, in spite of being elderly that correlates with the lower incidence of co-morbidities in this study. As incidence of co-morbidities increases with age and cant be attributed to psoriasis alone. Subclinical trauma for long duration can act as a trigger or koebner phenomenon for psoriasis as most of the patients in this study were hard labourers with palmoplantar involvement. Newer onset of psoriasis in elderly is relatively less severe compared to the childhood onset or adult onset of psoriasis. Patients have to be educated regarding the use of proper protective measures while working in order to prevent the microtrauma causing the trigger of psoriasis. Further studies on a larger scale need to be done to elucidate the association of occupation and type of clinical psoriasis.

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