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PREVALENCE, CLINICAL PROFILE AND PRESCRIBING PATTERN OF PSORIASIS IN A TERTIARY CARE REFERRAL HOSPITAL

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ABSTRACT

The aim of the study was conducted to find out the prevalence, types and prescribing pattern of psoriasis in patients attending a tertiary care hospital. This was a non experimental prospective, cross sectional study conducted over a period of five months. Among 6340 patients who visited the dermatology department of Amrita Institute of Medical Sciences, Kochi 100 patients were diagnosed to have psoriasis. The prevalence of psoriasis was found to be 1.58%. Majority of the patients (23%) belonged to the age group of 31-40 years. The mean age of the patients was 44.17±15 and the mean age of onset of the disease was 38.34±16.05 years whereas the male-female ratio 1.3:1. Majority of the patients were diagnosed clinically and only in 26% of patients biopsy was needed to confirm the diagnosis. 7% of the patients were found to have a positive family history of psoriasis. Scalp was most common (28% of patients) initial site of onset of psoriasis. Chronic plaque was the commonest clinical type (44%) followed by palm plantar (19%) and scalp psoriasis (12%). Type 2 diabetes mellitus and hyperlipidemia were the most commonly associated diseases seen in these patients. Pruritus was the most common associated symptom in these patients. 94 % of the patients were prescribed topical emollients, followed by topical steroids (66%) and antihistamines (49%). Understanding the morphologic types, natural history and triggering /exacerbating factors

responsible for the increased morbidity of psoriasis can help the sufferers. Treatment strategies are required that are equally effective in the control of skin and joint symptoms of psoriasis.

Keywords: Prevalence, Psoriasis, Topical therapies, Systemic agents

INTRODUCTION

Psoriasis is a chronic disfiguring inflammatory and proliferative condition of the skin in which both genetic and environmental influences have a critical role. It affects approximately 2% of the general population. The cause of psoriasis is not known, but it is believed to have a genetic component[1]. Although there may be remissions, it must be regarded as incurable by at present. Unsightly and disfiguring, the lesions are a stigmatizing blight that cause emotional problems in many and ruins the lives of persons with severe manifestations[2]. Psoriasis may begin at any age, but it is uncommon under the age of 10 years. A North Indian study found that the mean age of onset was higher for males than females (37 Vs 29 years)[3].

A Case of Palmoplantar psoriasis observed in a patient aged 45 years

Epidemiological studies revealed that a distinct group of disease is quite frequently associated with psoriasis. . Psoriasis patients appear to be at high risk for diabetes mellitus and cardiovascular disease[4]. The physical and

psychological impact of the disease has stimulated a growing international interest and concern about psoriasis. There is no cure for psoriasis and treatment is aimed at providing symptomatic relief and improved quality of life for sufferers. Treatment strategies depend largely on the severity, location and extent of lesion coverage[5].

Topical agents such as emollients, dithranol (anthralin), coal tar preparations, topical vitamin D3 analogues (calcipotriol, tacalcitol), topical retinoids and topical corticosteroids are recommended as initial treatments for patients presenting with psoriasis[6,7]

Moderated to severe psoriasis is generally less responsive to topical agents and require more intense treatment in the form of phototherapy Psoralen ultraviolet A radiation (PUVA) and Narrow-band ultraviolet B radiation (NBUVB) treatments and systemic agents such as methotrexate and acitretin. The use of phototherapy and systemic agents is associated with potentially fatal side effects, including liver toxicity, bone marrow suppression (methotrexate), renal failure, hypertension (ciclosporin), hyperlipidemia (ciclosporin and acitretin) and skin cancer (PUVA). For these reasons, guidelines from the British association of dermatologists state that PUVA should be limited to 150 lifetime treatments due to increased risk of malignancy[7].The purpose of the study was to determine the prevalence, clinical profile and prescribing pattern of psoriasis in patients attending the dermatology department of a tertiary care referral hospital.

MATERIALS AND METHODS

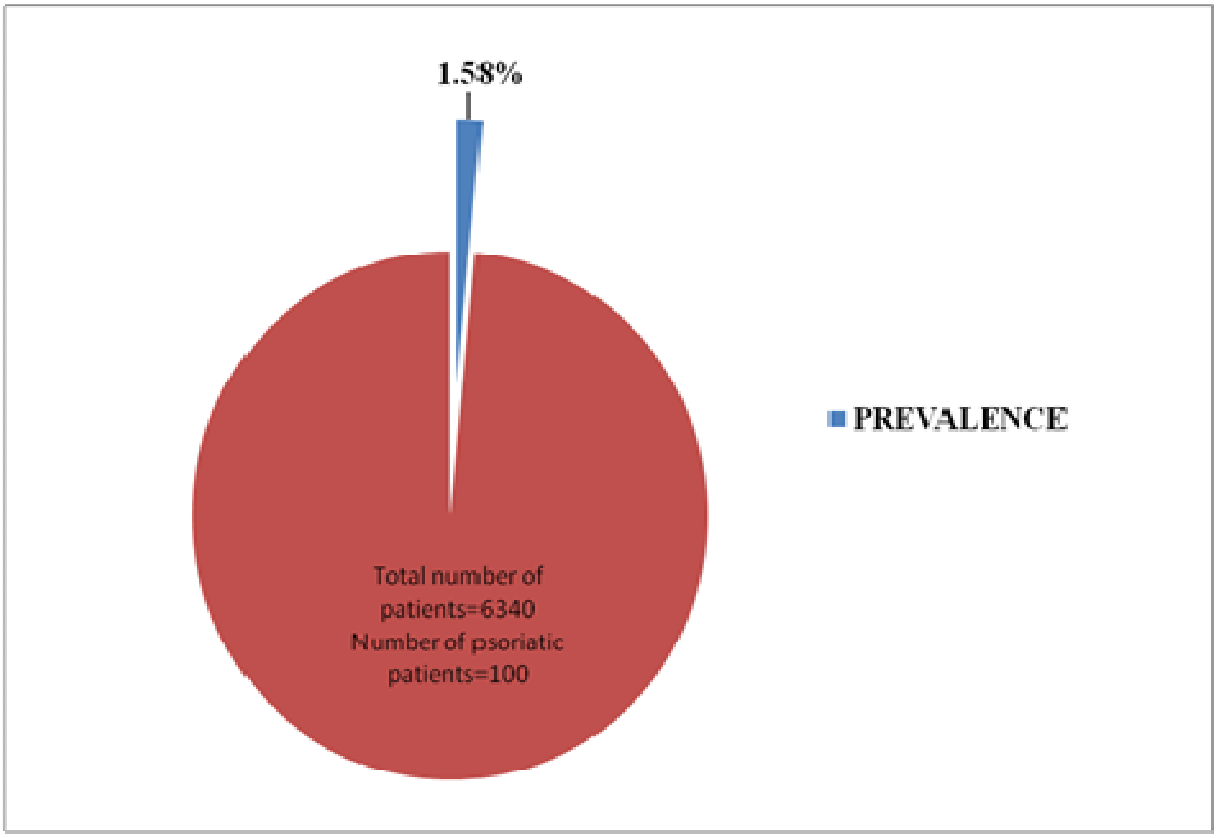
An observational, prospective, cross-sectional study was carried out on 100 patients diagnosed to have psoriasis from among 6340 patients visiting the dermatology department of amrita institute of medical science, Kochi, during the study period of 5months from 1st January 2010-31st May 2010. The diagnosis of psoriasis was made from the morphology of the lesion and biopsy was done when it was difficult to confirm clinically. A standardized data collection form was prepared and necessary data was obtained from patients and their care givers. The data collection form provided the information regarding the demography of the patient which includes age, sex, location of patients, age at onset of disease and family history. Patient written consent were obtained from each patient prior

to the interview. Initial site of onset of disease was also noted for each patient. Classification of the types of psoriasis was carried out using conventional terminology and additional categories based on the site and characteristics of the rash. Additional information including aggravating/triggering factors and comorbidities associated with psoriasis were collected. Individual analysis of the patient's prescription was carried out to study the treatment pattern of psoriasis. Data were fed into a computer and descriptive statistical analysis was carried out.

RESULTS

A total of 6340 patients were registered in the dermatology department in Amrita hospital during the 5 months study period from 1st January 2010 to 31st May 2010. Out of 6340 patients 100 were diagnosed to have psoriasis. The prevalence of psoriasis was found to be 1.58% and is shown in figure 1.

Figure 1: Prevalence of psoriasis in the sample population.



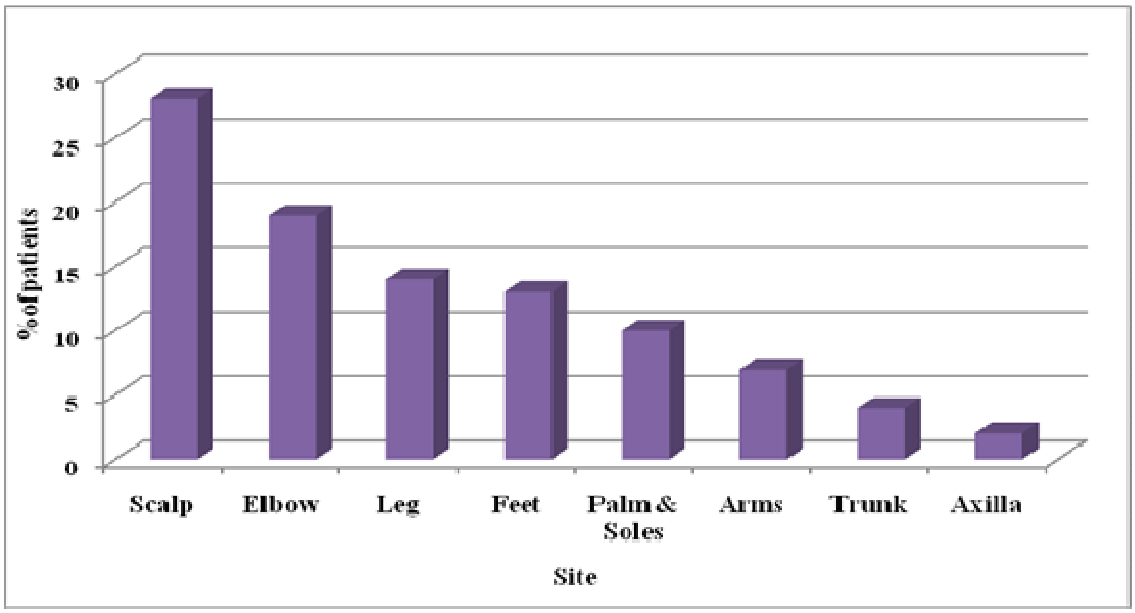
Majority of the patients (23%) belonged to the age group of 31-40 years. The mean age of the patients was 44.17±15 and the mean age of onset of the disease was 38.34±16.05 years whereas the male-female ratio 1.3:1. The overall age and gender distribution is shown in Table 1.

Table 1: Age and Sex distribution of psoriasis patients (n=100)

Age (years)	Males		Females		Total Number	Total Percentage
	Number	Percentage	Number	Percentage		
1-10	-	-	-	-	-	-
11-20	2	3.5	4	9.3	6	6.0
21-30	7	12.2	11	25.6	18	18.0
31-40	13	22.8	10	23.3	13	13.0
41-50	13	22.8	3	6.9	16	16.0
51-60	12	21.1	8	18.6	20	20.0
61-70	6	10.5	5	11.6	11	11.0
71-80	3	5.3	2	4.7	5	5.0
> 80	1	1.8	-	-	1	1.0
Total	57	100	43	100	100	100

Age of onset was more common during the second and fourth decades with onset being earlier in females as compared to males. 30% of the patients were from urban area. 7% of the patients had a positive family history of psoriasis. Pruritus was the main associated symptom found in 45% of patients where as scaling and irritation of the lesion was present in 40% & 15% of patients respectively. Scalp was the most common initial site affected accounting for 28% of patients followed by elbow 22%, leg 14%, feet 13%, palm & soles 10%, arms 7%, trunk 4%, and axilla in 2% of patients. The initial site of onset of the disease is shown in Figure 2.

Figure 2: Frequency of various sites of onset of psoriasis in the sample population (n=100)



Diagnosis was confirmed from morphology of lesion in 7% of patients where as in 26% of patients biopsy was done to confirm the diagnosis. Chronic plaque was the most common clinical type affecting 44% of patients, followed by palmoplantar 19%, scalp 12%, guttate 7%, and generalized for 6%. A combination of palm & soles and scalp psoriasis were found in 5 % of patients. 3% of patients had unstable psoriasis and 2% had each inverse and pustular psoriasis.The overall frequency of different types of psoriasis is shown in Table 2.

Table 2: Types of psoriasis seen in the sample population (n=100)

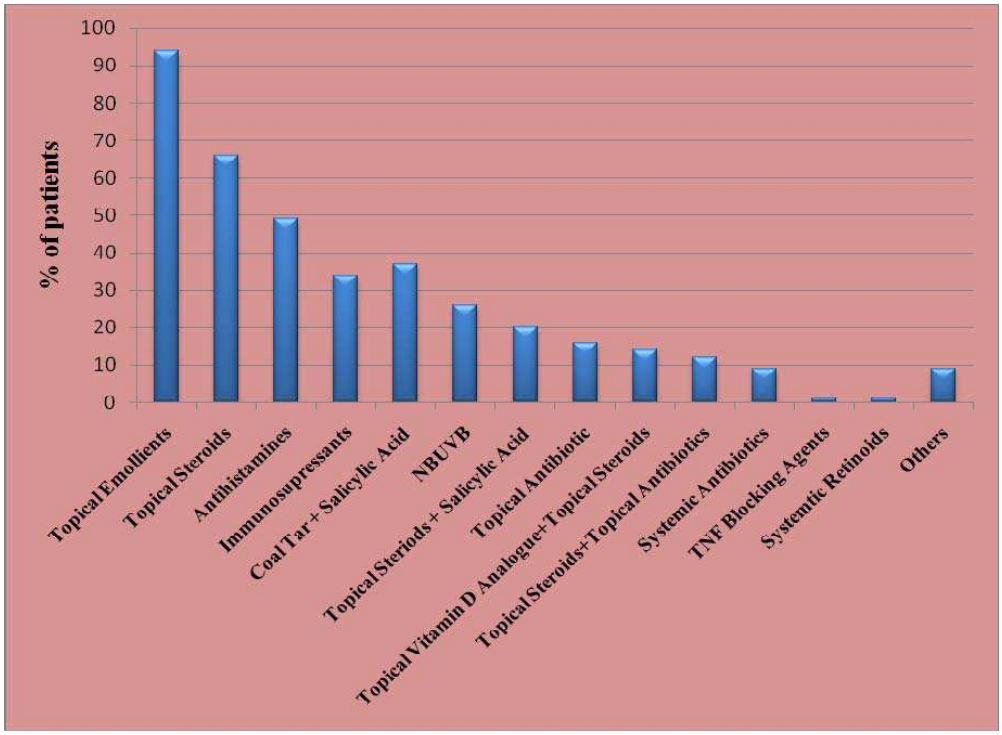
Type	No: of Patients	Percentage of patient
Chronic Plaque	44	44.0
Palmoplantar	19	19.0
Scalp	12	12.0
Guttate	7	7.0
Generalised	6	6.0
Palm and Soles + Scalp	5	5.0
Unstable	3	3.0
Inverse	2	2.0
Pustular	2	2.0
Total	100	100

Depression was the most common triggering factor seen in 40% of patients, alcohol in 21%, smoking in 12%, and psychosis in 1% of patients. The present study revealed that diabetes, hyperlipidemia, hypertension, psoriatic arthritis, asthma etc were some of the common co-morbidities found in these patients. 94% of patients were prescribed topical emollients, followed by topical steroids 66% of patients, antihistamines in 49% of patients, immunosuppressant 34%, combination of coal tar and salicylic acid 37%, vitamin D analogue 14%, topical

antibiotics12%, systemic retinoids and etanercept 1% each where the most commonly prescribed drugs for treatment of psoriasis in the study population. Drug categories prescribed for psoriasis treatment are shown in Figure 3.

Figure-15: Treatment pattern of psoriasis in the study.

Population (N=100)



DISCUSSION

In India, few studies have been done on the epidemiological features of this disease and most of them were on children. There is no reliable data concerning the prevalence of psoriasis in the general population of India. A study from North India showed the prevalence of psoriasis to be 1.4%[3]. Barisic - Drusko reported the prevalence of psoriasis in Croatia to be 1.55%[8]. The prevalence of psoriasis in various other studies were 1.3%, 1.43%, 1.5%[9,10,11] These findings are nearly identical to that of our study. The majority of the patients (23%) belonged to the age group of 31 - 40 years. The result of the present study are almost similar to the other studies[12,13,14]. This study

encountered that majority of the patients (39%) had onset of disease between 21-40 years. The mean age of onset of the disease was 38.34±16.05years. An Indian study by Ambadi et al reported that the onset of psoriasis was maximum between 20 – 40 years[15]. Another study observed that the onset of the disease was highest between the age group of 21 to 30 years[13]. In agreement with the other reports pruritus was the most frequently experienced symptom[3,14,16]. The most common initial site of onset of psoriasis in the present study was noted in my study was scalp (28%) followed by elbow (22%). Previous study reported that scalp was the most common initial site affected and it accounting for (46.3%) of adult patients and 57.3% of the pediatric patients in a study from India. Elbow was affected by (29.2%) of people and trunk by (12.9%)[17]. A study conducted by Kaur et al reported that scalp was the most common initial site affected followed by legs and arms[3]. In this study, the commonest clinical type of psoriasis was chronic plaque (44%), followed by palmoplantar in (19%) of patients. Previous studies have reported plaque type as the commonest type present in (90.5%), (81%), (73.5%), and 75% of patients[3,18,19,20]. Studies have indicated a higher prevalence of depression in patients with psoriasis compared with controls[21].

A study by Naldi reported that smoking and alcohol may alter the expression of psoriasis and its clinical course[22]. One study suggested that psychological stress and psychiatric morbidity are the most probable triggering factors in childhood and adolescence psoriasis. Frequency of psychiatric morbidity was 9.8%[23].

A previous study reported that patients with psoriasis more often have obesity, diabetes mellitus, heart failure and hypertension than controlled patients without psoriasis[24]. A study among 936 Italian patients hospitalized for severe psoriasis found prevalence of psoriatic arthritis in 7.7% of patients[25]. Another study reported that the prevalence of psoriatic arthritis as 5%[26]. A previous study[27] reported in UK population that topical corticosteroids were the most frequently prescribed medication and were received by (61.4%) of patients. A study conducted in UK showed that most patients with psoriasis (94%) were managed on topical psoriasis agents and only (4%) were prescribed systemic psoriasis agents only, and (2%) had no recorded psoriasis treatment at all during the 12 months study period. This study also showed that methotrexate and ciclosporin were the most frequently prescribed systemic

treatments (prescribed to 36.2% & 8.1% of patients respectively). Other agents including prednisolone and acitretin were each prescribed to 4% & 2.75% of patient's respectively[28].

CONCLUSION

Understanding the morphologic types, natural history and triggering /exacerbating factors responsible for the increased morbidity of psoriasis can help the sufferers. In the present study most patients with psoriasis are managed with topical agents. The systemic agents currently available were prescribed in a limited way due to toxicity, side effects and contraindications.

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