

A study of epidemiology, clinical features and co-morbidities in psoriasis

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Abstract

Background: Psoriasis is a papulosquamous disease with variable morphology, distribution, severity, and course. Psoriasis affects quality of life. **Aim and Objective:** To study the epidemiology, clinical features and co morbidities in patients of psoriasis. **Methodology:** Total 110 patients were studied at a tertiary care center. Data collection was done with pre tested questionnaire. Data collection included sociodemographic data, clinical features and associated comorbidities. **Results and Discussion:** patients were male (61.82%) and 38.18% were females. The most common type of psoriasis in our study was plaque psoriasis 99(90%). Nail discoloration was seen in 29.09% patients. Stress was most common aggravating factors. Most common co morbidity associated with psoriasis was hypertension(27.5%) followed by obesity (25%) and diabetes mellitus (18.20%).

Key Words: psoriasis.

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the scalp, trunk, buttocks and extremities but can occur anywhere on the body. Patients might demonstrate nail involvement which can present without concomitant plaques. Active lesions might be itchy or painful. Psoriasis can also present as an isomorphic response, where new lesions develop on previously normal skin that has sustained trauma or injury.¹ That patient with psoriasis feel stigmatized by the condition. This of itself contributes to everyday disability leading to depression and suicidal intention in more than 5% of patients.² Psoriasis generally does not affect survival but it has negative effects on patient's quality of life.³

INTRODUCTION

Psoriasis is a common chronic, recurrent, immune mediated disease of the skin and joints. Psoriasis is found worldwide but the prevalence varies among different ethnic groups. It has a strong genetic component but environmental factors such as recent streptococcal throat infection, viral infection, immunization, use of antimalarial drug, or trauma play an important role in the presentation of disease. Psoriasis can present at any age and has been reported at birth and in older people of advanced age. Symptoms of psoriasis may include well demarcated, symmetric and erythematous plaques with overlying silvery scale. Plaques are typically located on

AIM AND OBJECTIVE

To study the epidemiology, clinical features and co morbidities in patients of psoriasis.

MATERIAL AND METHODS

Present study was a cross sectional study carried out on patients diagnosed with psoriasis attending dermatological OPD in a tertiary care center.

Inclusion Criteria

1. Histopathologically diagnosed psoriasis patients
2. Age above 18 years

Exclusion Criteria

1. Age below 18 years
2. Those who were not willing to participate.

Study was approved by ethical committee. A valid written consent was taken from patients after explaining study to them. Total 110 patients were studied. Data was collected with a pretested questionnaire. Data collected was sociodemographic data, detailed history, Clinical examination and co morbidities. The disease severity was assessed using the body surface area (BSA) involvement and presence of nail and joint involvement. Data analysis was done with appropriate statistical tests.

RESULTS

Mean age of onset in females was 34.37±9.2 years and in males was 39.72±10.24 years. Among 110 patient's majority of the patients were male (61.82%) and 38.18% were females. Positive family history was reported in (27)24.54% of patients. The most common type of psoriasis in our study was plaque psoriasis 99(90%), followed by guttate psoriasis 5(4.55%), erythrodermic psoriasis 3(2.73%), pustular psoriasis 2(1.82%) and flexural psoriasis 1(0.9%) fig 1 50% of patients in our

study had identifiable aggravating factors. Stress was most common aggravating factors 53 (48.18%). Other factors were infection 10 (9.09%) sunlight 26(23.67%), trauma, drugs etc. Other less considerable factors were smoking, alcohol etc. Severity of disease was determined by body surface area involved. Majority (51.8%) of the patients were having body surface involvement of 5-10% followed by BSA of < 5% (23.67%). 22.73% patients were having BSA of >10- 90 %. Male patients had more severity than females (table1) Out of total 110 patients 68(54.76%) patients had nail involvement. It was significantly more in males (66.17%) than females (54.76%). Most common nail involvement was pitting (59.09%) followed by onycholysis (48.18%). Nail discoloration was seen in 29.09%patients. Nail discoloration was seen in patients (29.09%). Total nail dystrophy was observed in 5.46% patients. (Table 2) Various co morbidities were present in psoriatic patients. Most common co morbidity associated with psoriasis was hypertension (27.5%) followed by obesity (25%) and diabetes mellitus (18.20%). Less common co morbidities were ischaemic heart disease and cerebrovascular disease. (figure 2)

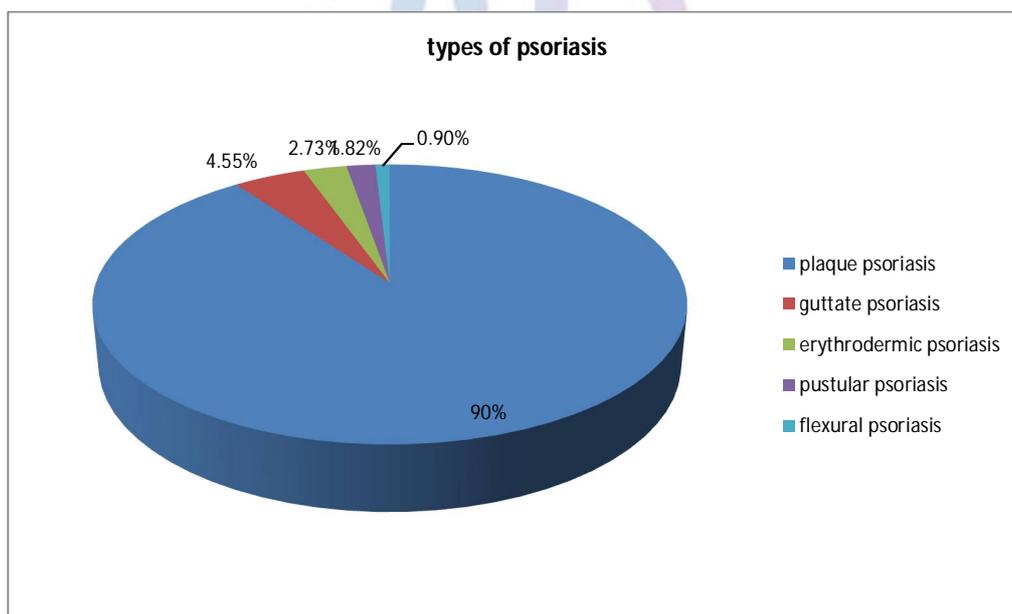


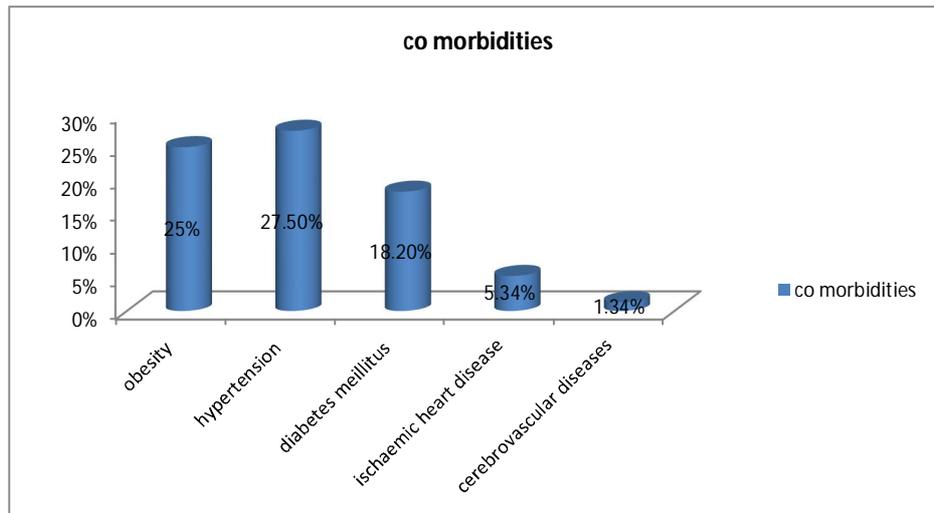
Figure 1: Distribution of patients according to type of psoriasis

Table 1: distribution of patients according to severity of disease

Severity of psoriasis	Males	Percentage	Females	Percentage	Total
BSA < 5%	16	23.53	10	23.8	26(23.67%)
BSA 5-10%	33	48.53	24	57.14	57 (51.8%)
BSA >10-90%	17	25	08	19.06	25 (22.73%)
BSA > 90%	02	2.9	00	00	02 (1.8%)
Total	68	100	42	100	110(100%)

Table 2: Distribution of patients according to nail involvement

Sr no	Nail involvement	males	Percentage	Females	Percentage	Total
1	Yes	45	66.17	23	54.76	68(61.82%)
2	Pitting	44	64.7	21	50	65(59.09%)
3	Onycholysis	35	47.05	18	42.86	53(48.18%)
4	Nail discolouration	22	32.35	10	23.81	32(29.09%)
5	Subungual hyperkeratosis	11	16.17	04	9.52	15(13.67%)
6	Total nail dystrophy	04	5.88	02	4.76	06(5.46%)
7	No	23	33.82	19	45.23	42(38.18%)

**Figure 2:** Distribution of psoriasis patients according to associated co morbidities

DISCUSSION

Mean age of onset in females was 34.37 ± 9.2 years and in males was 39.72 ± 10.24 years. Similar findings were observed in A Ejaz *et al*⁴ and Y.T. chang *et al*.⁵ Among 110 patients majority of the patients were male (61.82%) and 38.18% were females. Similar findings were observed in A Ejaz *et al*⁴ with M: F ratio of 1.2:1. Contrary to our study R. Parisi *et al*⁶ showed female preponderance. Some of the studies showed no difference in male and female prevalence.^{7,8} The most common type of psoriasis in our study was plaque psoriasis 99(90%), followed by guttate psoriasis 5(4.55%). In a study of Marsa S *et al*⁹ it was observed that psoriatic arthritis was the most frequent pattern with asymmetric knee involvement to be the most common presentation in 40% of the patients. Nail discoloration was seen in 29.09% patients. Nail discoloration was seen in patients (29.09%). Total nail dystrophy was observed in 5.46% patients. in a study by Veale D it was seen that orthopathy was often associated with dactylitis and nail dystrophy.¹⁰ Stress was most common aggravating factors.^{5,3} (48.18%). Similar findings were observed in previous studies^{11,12}. These studies found that psoriasis patients had significantly lower cortisol levels at moments when daily stressors are at peak levels. Cortisol levels are important in immune functions. The study also reported

that psoriasis patients with high levels of daily stressors exhibited lower mean cortisol levels, as compared to psoriasis patients with low levels of daily stressors¹³ Other aggravating factors were infection 10 (9.09%) sunlight 26 (23.67%). In a study by J. Hayes *et al* smoking was found to be significant factor for development of psoriasis.¹⁴ Most common co-morbidity associated with psoriasis was hypertension (27.5%) followed by obesity (25%) and diabetes mellitus (18.20%). Similar findings were also reported in a study by Cohen *et al.*, in which he reported hypertension and diabetes mellitus occurred in 27.5% and 13.8% of psoriatic patients respectively.¹⁵ In a study it was revealed that diabetes was significantly higher in psoriasis patients as compared with the control group (odds ratio [OR]: 1.27, 95% confidence interval [CI]: 1.1–1.48).¹⁶

CONCLUSION

Psoriasis is a chronic disorder affecting skin, joints. It affects quality of life. In future more studies are needed for better understanding of disease.

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