Original Research Article

Study of clinical and epidemiological features of psoriasis at a tertiary care center

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Abstract

Background: Psoriasis is a chronic, immune-mediated inflammatory skin disease that is often associated with systemic manifestation, marked by periods of remissions and exacerbations. It is characterized by well-defined erythematous papules and plaques surmounted by silvery white scales over the elbows, knees, scalp, and extensor surfaces. The current study presents the clinical and epidemiological features of psoriatic patients attending the dermatology outpatient department of our tertiary care hospital. **Material and Methods:** Present study was a prospectiveand observational study, conducted in patients diagnosed as psoriasis, attending OPD of our hospital. **Results:** After applying inclusion and exclusion criteria total 160 patients with diagnosis of psoriasis were considered for present study. Most common age group affected was 31-40 years (34.37 %), followed by 41-50 years age group (25.63 %) and 51-60 years (14.37%). Male to female ratio in present study was 2.08:1. The most common type of psoriasis in our study was psoriasis vulgaris (69.38%), followed by Palmoplantar psoriasis (16.25%), scalp psoriasis (8.13%). Usually multiple sites are simultaneously involved in patients with psoriasis. Most common affected sites were upper extremities (83.125 %), lower extremities (75%), scalp (70%), trunk (64.37%), nails (61.25%) in present study. Multiple co-morbidities like hypertension (43.13%), depression (42.50%), metabolic syndrome (35.00%), psoriatic arthritis (32.50%), diabetes mellitus (26.88%), dyslipidaemia (24.38%) were noted in study patients. **Conclusion:** Psoriasis is a chronic dermatological disorder, having multifactorial pathologies, with chronic remissions and exacerbations. The diagnosis of psoriasis is usually based on the presence of typical skin lesions. Early recognition can definitely reduce other co-morbidities.

Key Word: Psoriasis, Co-morbidities, Psoriatic arthritis.

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INTRODUCTION

Psoriasis is a chronic, immune-mediated inflammatory skin disease that is often associated with systemic manifestation, marked by periods of remissions and exacerbations. It is characterized by well-defined erythematous papules and plaques surmounted by silvery white scales over the elbows, knees, scalp, and extensor surfaces[1]. The reported prevalence of psoriasis in countries ranges between 0.09% and 11.4%[2]. According to various reported prevalence of psoriasis in India varies from 0.44 to 2.8%[3]. The risk factors for psoriasis include alcoholism, obesity, mental stress, recurring infections and genetic predisposition. Regular tobacco smoking not only increases the risk of developing psoriasis but also its severity[4]. Generally impact of psoriasis on a patient depends on the affected areas of the patient's body and presence of systemic co-morbidities[5]. The disease is incurable and requires lifelong control to minimize the development of skin lesions and to relieve existing symptoms[6]. Psoriasis can be more serious disease when it is complicated by other diseases such as arthritis, heart attack, diabetes and psychology making more adverse effect on health. Between 1.3% and 34.7% of individuals with psoriasis develop chronic, inflammatory arthritis

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(psoriatic arthritis) that leads to joint deformations and disability[7]. Treatment strategies depend largely on the severity, location and extent of lesion coverage. 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. The current study presents the clinical and epidemiological features of psoriatic patients attending the dermatology outpatient department of our tertiary care hospital.

MATERIAL AND METHODS

Present study was a prospective and observational study, conducted in patients of department of Skin and Venereal Diseases, Dr Ulhas Patil Medical College and hospital, Jalgaon. Total study duration was 1 year. Institutional human ethics committee approval for present study was taken.

Inclusion criteria

Patients diagnosed as psoriasis, attending OPD and willing for follow up.

Exclusion criteria

Patients later diagnosed with skin disease other than psoriasis.

A written informed consent was taken, prior to participation in study. All relevant details of patients such as demographic, social, detailed clinical history, routine blood investigations, skin biopsy, chest X-ray, bone X-ray and other investigations were collected. Only patients suspected with systemic involvement were advised for other investigations. Clinical history with special references to age, site of onset, past treatment, seasonal variation, triggering factors, family history of disease, other systemic diseases, and habits were noted. General physical examination, detailed mucocutaneous, and systemic examination were done. and the findings were recorded. The diagnosis of psoriasis was mainly clinical, done on the basis of typical clinical picture and demonstration of typical clinical signs like Grattinage sign, Austpitzs sign and candle wax sign. A detailed note of the treatment received was made under the headings of topical (tar,dithranol, steroids, retinoids), Systemic (steroids, methotrexate, PUVA, retinoid), etc. This complete data entered in Microsoft excel sheet. Statistical analysis was done using descriptive statistics.

RESULTS

After applying inclusion and exclusion criteria total 160 patients with diagnosis of psoriasis were considered for present study. Most common age group affected was 31-40 years (34.37 %), followed by 41-50 years age group (25.63 %) and 51-60 years (14.37 %). Extremes of age groups were less common i.e. less than 20 years (3.13 %) and more than 70 years (10 %). Males clearly outnumbered female patients (67.5% male and 32.5% female). Male to female ratio in present study was 2.08:1.

Table 1: Distribution of Age and Gender.

Characteristic	No. of cases	Percentage
Age group (years)		
0-10	1	0.63
11-20	4	2.5
21-30	20	12.5
31-40	55	34.37
41-50	41	25.63
51-60	23	14.37
61-70	12	7.5
71-80	4	2.5
Gender		
Male	108	67.5
Female	52	32.5

The most common type of psoriasis in our study was psoriasis vulgaris (69.38%), followed by Palmoplantar psoriasis (16.25 %), scalp psoriasis (8.13%). Other types such as generalized pustular psoriasis (2.50%), nail psoriasis (1.88%), other psoriatic arthropathy (1.25%), distal interphalangeal psoriatic arthropathy (0.63%) were also noted but in less amount.

Table 2: Type of psoriasis

Type of psoriasis	No of patients	(%)
Psoriasis vulgaris	111	69.38%
Palmoplantar psoriasis	26	16.25%
Scalp psoriasis	13	8.13%
Generalized pustular psoriasis	4	2.50%
Nail psoriasis	3	1.88%

Other psoriatic arthropathy	2	1.25%
Distal Interphalangeal psoriatic arthropathy	1	0.63%

Usually multiple sites are simultaneously involved in patients with psoriasis. Most common affected sites were upper extremities (83.125 %), lower extremities (75 %), scalp (70 %), trunk (64.37 %), nails (61.25 %) in present study.

Table 3: Sites of involvement

Site	Number of patients	Percentage
Upper extremities	133	83.125
Lower extremities	120	75
Scalp	112	70
Trunk	103	64.375
Nails	98	61.25
Face and neck	47	29.375
Palms and soles	22	13.75
Mucous membrane	3	1.875
Axilla	1	0.625
Periumbilical region	1	0.625

Psoriasis has been associated with numerous dermatologic and systemic diseases [Table 4]. Multiple co-morbidities like hypertension (43.13%), depression (42.50%), metabolic syndrome (35.00%), psoriatic arthritis (32.50%), diabetes mellitus (26.88%), dyslipidaemia (24.38%) were noted in study patients. Other less common morbidities were cardiovascular diseases (10.63%), COPD (6.88%), myocardial infarction (1.88%), crohn's disease (1.25%), cerebral infarction (0.63%), cerebral haemorrhage (0.63%).

Table 4: Co-morbidities

Co-morbidities	No of patients	%
Hypertension	69	43.13%
Depression	68	42.50%
Metabolic syndrome	56	35.00%
Psoriatic arthritis	52	32.50%
Diabetes mellitus	43	26.88%
Dyslipidaemia	39	24.38%
Cardiovascular diseases	17	10.63%
COPD	11	6.88%
Myocardial infarction	3	1.88%
Crohn's disease	2	1.25%
Cerebral infarction	1	0.63%
Cerebral haemorrhage	1	0.63%

DISCUSSION

Psoriasis is a chronic, multifactorial disease with variety of clinical presentation and genetic and environmental factors greatly influence clinical presentation, severity, outcome and associated morbidity. Many patients with minimal clinical manifestations often do not seek medical attention or take treatment from general practitioner or take over the counter medicines. All these factors are responsible for wide differences in the prevalence of the disease among different ethnic groups and in different parts of the world. The etiology of psoriasis remains unclear, but there is evidence for genetic predisposition[10]. Psoriasis can also be provoked by external and internal triggers, including mild trauma, sunburn, infections, systemic drugs and stress[11]. Most common age group affected was 31-40 years (34.37 %), followed by 41-50 years age group (25.63 %) and 51-60 years (14.37 %). So 74.38 % were from 31-60 years age group. Some foreign studies noted similar findings[12,13]. Dogra S[3] noted that , the peak age of onset of disease was in third and fourth decade. Several studies noted that the age of onset for psoriasis has a early and late onset (bimodal) distribution[14,15]. The bimodal distribution of psoriasis incidence represents two clinical presentations of the disease, type I (early onset) presenting at <40 years of age and type II (late onset) at >40 years of age. We did not noted such findings. Male to female ratio in present study was 2.08:1. Males were found to be twice as commonly affected by psoriasis as females by many studies[3]. Increase incidence in males can also be related to tobacco smoking and alcohol consumption, as both these increases the risk of developing as well as severity of psoriasis. The most common type of psoriasis in our study was psoriasis vulgaris (69.38%). The most common type of psoriasis in our study was psoriasis vulgaris (69.38%). Different studies from India and abroad have found chronic plaque psoriasis as the commonest variety of psoriasis[18]. Multiple studies noted strong association of

psoriasis with conventional cardiovascular risk factors (e.g., metabolic syndrome, obesity, low physical activity, smoking, alcohol, lipid abnormalities, hypertension), and also cardiovascular comorbidities, with an increased risk of myocardial infarction and myocardial infarction with psoriasis[19,20]. In a meta-analysis, it was noted that psoriasis is associated with cardiovascular disease and its risk factors, and not with cerebrovascular disease.[21] Present study had similar findings. Generally, severity of co-morbidities is in direct proportion with severity and duration of psoriasis. Multiple Indian studies[22,23]. documented higher incidence of metabolic syndrome, hypertension, dyslipidaemia, diabetes melitus and psoriatic arthropathy in patients with psoriasis

CONCLUSION

Psoriasis is a chronic dermatological disorder, having multifactorial pathologies, with chronic remissions and exacerbations. The diagnosis of psoriasis is usually based on the presence of typical skin lesions. Overall social, psychological impact of psoriasis on an individual can vary over time. Early recognition can definitely reduce other co-morbidities.

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