

Original research article**A study on clinical profile of patients presenting with papulosquamous disorders to the dermatology outpatient department****¹C. Raghuv eer,²Laksh mipathi Y Pattar,³Ullas, ⁴Usharani N**^{1,2}Associate Professor, Department of DVL, VIMS, Ballari, Karnataka, India³Senior Resident, Department of DVL, VIMS, Ballari, Karnataka, India⁴Associate Professor, Department of OBG, VIMS, Ballari, Karnataka, India**Corresponding Author:** Usharani N**Abstract**

Psoriasis is a common, chronic, and recurrent inflammatory disease characterized by heritability, phenotypic variability and possible association to psoriatic arthritis and metabolic syndrome. Psoriasis is considered as a hyperproliferative disorder, but this increased proliferation of keratinocytes is the result of a cascade of immunologic reactions driven by inflammatory mediator cells and cytokines. This was a descriptive cross-sectional study. A total of 210 successive cases, who attended the OPD with papulosquamous disorders were taken. Data was collected after obtaining a written informed consent from the patient. A detailed clinical history was taken and a complete examination of skin lesions was done. In this study comprising of 210 cases, 44.3% had psoriasis, 36.7% had lichen planus, 14.3% had pityriasis rosea, 2.9% had lichen nitidus and 0.9% each had lichen striatus and pityriasis lichenoides chronica.

Keywords: Papulosquamous disorders, psoriasis, clinical profile**Introduction**

Papulosquamous disorders are a heterogeneous group of disorders whose etiology primarily is unknown. They consist of a diverse group of inflammatory conditions of the skin characterized by an eruption that exhibit papule and squamous components. In Latin, papula means pimple and squames means scales^[1].

Psoriasis is a common, chronic, and recurrent inflammatory disease characterized by heritability, phenotypic variability and possible association to psoriatic arthritis and metabolic syndrome. Psoriasis is considered as a hyperproliferative disorder, but this increased proliferation of keratinocytes is the result of a cascade of immunologic reactions driven by inflammatory mediator cells and cytokines^[2].

Lichen planus is a common, pruritic, inflammatory disease of the skin, mucous membranes, and hair follicles. Pathophysiologically, lichen planus is an immunologic reaction mediated by T cells. Lichen planus affects mainly the skin, but mucosal membranes and nails may also be involved. Intense pruritus is very common during the course of the disease, especially in the early, active phase^[3].

Pityriasis rosea is an acute, self-limiting papulosquamous disorder of unknown etiology, with a highly characteristic morphology and clinical course. It typically begins with a scaly erythematous patch or plaque known as the Herald patch, which precedes and heralds the onset of the widespread papulosquamous eruption in the classical 'fir tree' or 'Christmas tree' distribution. It is most likely a viral exanthema associated with reactivation of human herpesvirus 7 (HHV-7) and sometimes HHV-6. It primarily affects children and young adults and typically resolves spontaneously within 6-12 weeks^[4].

Pityriasis rubra pilaris (PRP) is a chronic papulosquamous disorder of unknown etiology. One hypothesis is that it might be related to an abnormal immune response to an antigenic trigger, especially streptococcal infections, although vaccinations or medications may also be involved. PRP is more often sporadic, but it may sometimes be inherited^[5].

Lichen nitidus is an idiopathic inflammatory dermatosis that has been speculated to be induced by allergens causing epidermal and dermal antigen-presenting cells to activate a cell-mediated response, leading to lymphocyte accumulation and development of typical inflammatory papules. It is typically characterized by spontaneous resolution in a few years^[6].

Methodology

This was a descriptive cross-sectional study. A total of 210 successive cases, who attended the OPD with

papulosquamous disorders were taken. Data was collected after obtaining a written informed consent from the patient. A detailed clinical history was taken and a complete examination of skin lesions was done. Dermoscopic examination was done using dermlite3 with polarized view. Skin biopsy was done from the lesion and sent for histopathological examination. Data was entered in proforma and analysed using simple statistical methods like percentage, proportion, ratio, etc. and Chi square test (wherever applicable).

Inclusion criteria

Patients more than 15 years presenting with papulosquamous disorders to the Dermatology Outpatient Department at VIMS, Ballari were included in the study

Exclusion criteria

- Patients younger than 15 years.
- Patients on topical therapy for more than 1 month and systemic therapy for more than 6 months.
- Patients with infectious and neoplastic skin lesions.
- Patients whose lesions are secondarily infected.

Results

In this study, about 31.4% of patients comprised of 21-30 years age group which was highest followed by 18.6% between 31 and 40 years and 16.2% who were from 15 to 20 years. There were 15.2% of cases in the age group of 41-50 years, 10% in the age group of 51-60 years, 8.1% in the age group of 61-70 years and 0.5% in the age group of 71-80 years.

Table 1: Distribution of patients based on age

Age group (in years)	Number of cases (n=210)	Percentage
15-20	34	16.2
21-30	66	31.4
31-40	39	18.6
41-50	32	15.2
51-60	21	10.0
61-70	17	8.1
71-80	1	0.5
Total	210	100.0

In this study, there were 121(57.6%) males and 89(42.4%) females, male to female ratio being 1.4:1.

Table 2: Distribution of patients based on sex

Sex	Frequency(n=210)	Percent
Males	121	47.6
Females	89	42.4
Total	210	100

In this study comprising of 210 cases, 44.3% had psoriasis, 36.7% had lichen planus, 14.3% had pityriasis rosea, 2.9% had lichen nitidus and 0.9% each had lichen striatus and pityriasis lichenoides chronica.

Table 3: Frequency of various papulosquamous diseases in this study

Disease	Number of cases (n=210)	Percentage
Psoriasis	93	44.3
Lichen planus	77	36.7
Pityriasis rosea	30	14.3
Lichen nitidus	6	2.9
Lichen striatus	2	0.9
Pityriasis lichenoides chronica	2	0.9
Total	210	100.0

In this study, itching was the most common complaint seen in 166 (79%) patients, followed by elevated skin lesion seen in 145 patients (69%). Third most common complaint was scaling which was present in 60 patients (28.6). Discolouration was chief complaint in 54 patients and rash in 39 patients which was least common complaint. Multiple presentations hence total not shown.

Table 4: Distribution of chief complaints in the patients

Chief complaint	Number of cases	Percentage
Itching	166	79.0
Rash	39	18.6

Elevated skin lesion	145	69.0
Discolouration	54	25.7
Scaling	60	28.6

In this study, 139 patients had the duration less than 3 months and 30 patients had duration between 3-6 months. Duration between 6 months-12 months was seen in 22 patients and 19 patients had disease more than one year.

Table 5: Distribution of duration of diseases

Duration	Frequency (n=210)	Percentage
Less than 3 months	139	66.2
3-6 months	30	14.3
6months-1year	22	10.5
1-2 years	14	6.7
More than 2 years	5	2.3
Total	210	100.0

In this study, 84.7% patients did not have any aggravating and relieving factors whereas 10.9% patients had aggravation of the disease during winter. Aggravation during summer was seen in 1.4% of patients. Aggravation on sun exposure was 1.4% and at night was seen in 1.4%.

Table 6: Various factors causing aggravation of disease

Aggravating factor	Number of cases (n=210)	Percentage
None	178	84.7
Winter aggravation	23	10.9
Summer aggravation	3	1.4
Sun exposure	3	1.4
At night	3	1.4
Total	210	100.0

Discussion

In our study of 210 cases, males outnumbered females i.e., there were 121(47.6%) males and 89(42.4%) females. Higher percentage was seen between 21- 30 years of age group in our study followed by age group between 31-40years. Another study done by Nwako-Mohamad *et al.*^[7] observed median age more than 50 years.

In our study, psoriasis(44.3%) was the most common papulosquamous disorder followed by lichen planus(36.7%), pityriasis rosea(14.3%), lichen nitidus(2.9%), lichen striatus(0.9%) and pityriasis lichenoides chronica(0.9%) in decreasing order. Similar to our study, psoriasis outnumbered other papulosquamous disorders in other studies too^[7,8].

In our study, itching was the most common complaint seen in 166(79%) patients, followed by elevated skin lesion seen in 145 patients(69%). Third most common complaint was scaling which was present in 60 patients(28.6%). Discolouration was chief complaint in 54 patients and rash in 39 patients which was least common complaint. Duration of disease was less than 3 months in 139(66.2%) patients and 30(14.3%) patients had duration between 3-6 months. Duration between 6 months-12 months was seen in 22(10.2%) patients and 19(9.0%) patients had disease more than one year. Most common aggravating factor in our study was winter season(10.9%). Although 92.4% of patients did not have any systemic complaints, 3.3% of patients had arthralgia and 4.3% had fever. No study was available to compare above parameters. In our study, among psoriasis patients, 8.3% had Diabetes mellitus, 6.5% had hypertension and 1% had cardiac related disease which is comparable to a study conducted by Mrityunjay Kumar Singh^[9], in which diseases associated with psoriasis, were diabetes mellitus (2.43%), hypertension (4.35%), heart disease (1.75%).

In our study, lesions were generalised in 93.8% of patients but localised in 6.1% of patients. Bilateral involvement was seen in 97.2% of cases whereas 2.8% patients had unilateral lesions. Multiple lesions were present in almost all patients except for 4 patients who had single lesion. Distribution of cutaneous lesions were symmetrical in 37 patients and asymmetrical in 173 patients. Erythematous lesions were present in 60.5% patients. Scaling was seen in 65.7% of patients. Induration was present in 28.6% of patients and hyperpigmentation seen in 37.6% of patients. No studies were available to compare the above parameters^[10].

Conclusion

The most common papulosquamous disorder in our study was psoriasis(44.3%), followed by lichen planus(36.7%), pityriasis rosea(14.3%), lichen nitidus(2.9%), lichen status (0.9%) and pityriasis lichenoides chronica(0.9%).

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