



PSORIASIS; FREQUENCY OF ERYTHRODERMIC VARIANT IN PEDIATRIC AGE GROUP.

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INTRODUCTION

Psoriasis is a chronic disabling remitting and relapsing disease affecting skin and joints.¹ Its prevalence is 2-7% of population. Psoriasis in pediatric age group is not rare.² About 40% of affected adult psoriatic patients have presentation of this disease in childhood period. Its etiology is multifactorial including environmental factors and genetic factors.^{3,4} upto now about 20 new genetic loci have been found related to this disease⁵; with PSORS1 locus on chromosome 6p213 presents with early onset psoriasis.⁶ Environmental factors are different in children than adults, as soar throat, psychological trauma are more common factors of disease activity in childhood than in adulthood.^{7,8} The clinical types include, guttate, plaque-type, napkin and erythrodermic psoriasis.^{9,10} Other less frequent types seen in children include nail psoriasis and pustular psoriasis. In children psoriasis is found with other dermatological and non dermatological diseases such as eczema, alopecia areata, allergic contact dermatitis and vitiligo.¹¹ Erythrodermic psoriasis is a rare variety of psoriasis. It is considered as 1-2% of all psoriatic cases. It can be triggered by certain drugs, infections, and corticosteroids withdrawal. There are many complications of erythrodermic

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ABSTRACT... Objectives: The objective of our study was to determine the frequency of erythrodermic variant of psoriasis in pediatric age group. **Study Design:** Hospital based cross-sectional study. **Setting:** Civil Hospital Karachi Dow University of Health Sciences. **Period:** 6 months duration 1.1.15 to 30.6.15. **Patients and Methods:** 30 patients from 1 month to 14 years with diagnosis of psoriasis were evaluated. **Results:** Out of 30 patients, the median age was 8 years, most of the patients (56.7%) were found to be of the age range of 6-10 years. Erythrodermic variant of psoriasis was found in 6.7% of patients. Both the patients were having 95% of body involvement. **Conclusion:** Erythrodermic variant is a rare variant and should be diagnosed earlier in order to prevent the complications.

Key words: Childhood psoriasis, Erythrodermic psoriasis

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variant of psoriasis like dehydration, body temperature variation, cardiac failure, protein loss, pedal edema, anemia, lymphadenopathy and failure to thrive. In patients of erythrodermic psoriasis arthropathy is not uncommon.

Childhood psoriasis can significantly affect not only physical but mental health of a child. As it has waxing and waning course, its early detection is difficult in pediatric age group. Hence background knowledge of its common subtypes is important for its prognostic significance. This study will help in determining frequency of erythrodermic variant of psoriasis in pediatric age group.

METHODS

It was a cross-sectional study conducted in dermatology department on both outpatient and inpatient. This department is part of Dow University of Health Sciences, Civil Hospital Karachi. The duration of this study was about 6-month period from 1st January 2015 to 30 June 2015. By nonprobability consecutive sampling, a total of 30 patients were included. Inclusion criteria were patients aged 1 month to 14 years. Informed consent was taken. Patients of psoriatic arthritis or juvenile arthritis were excluded.

After taking informed consent, data was collected by a dermatologist from patients and also their parents. Patients demographics was noted and complete history along with detailed cutaneous and systemic examination of the patients were done to make a diagnosis of psoriasis and its particular variant i.e. erythrodermic psoriasis. Skin biopsies were also taken wherever required and were fixed in 10% formalin for the hematoxylin and eosin staining. Severity was assessed according to the Physician’s Global Assessment and body surface area measurements.

All the Data were analyzed through SPSS version 17. Frequency and percentages were computed for age, gender, severity of diseases, site of involvement as well as for the pattern of erythrodermic variant of psoriasis.

RESULTS

Out of 30 patients, the median age was 8 years; most of the patients (56.7%) were found to be of the age range of 6-10 years. The disease was equally distributed in males and females as shown in the Table-I.

Gender	
Female	15(50.0)
Male	15(50.0)
Age(years)	
1-5 years	7(23.3)
6-10years	17(56.7)
>10 years	6(20.0)

Table-I. Demographic data of study population (n=30). demographic information n(%)

Type of Psoriasis in children N (%)	
Plaque	13 (43.3)
Guttate	4 (13.3)
Nail	3 (10.0)
Palmoplantar	3 (10.0)
Erythrodermic	2 (6.7)
Psoriatic diaper rash	2(6.7)
Scalp	2 (6.7)
Pustular	1 (3.3)

Table-II. Frequency of type of psoriasis in children (n=30).

Table-II as noted in above results only 2(6.7)% out

of 30 were found to have erythrodermic variant of psoriasis. During examination about 95% of body was found to be involved in both the patients. Out of these two patients one was male and other one was female. No other co-morbids was seen in both these patients as discussed earlier.

Skin biopsy was done in 3 patients, 1 with pustular psoriasis and 2 with erythrodermic variant of psoriasis, not only to confirm the diagnosis but to differentiate with other causes of erythroderma like atopic dermatitis and pemphigus foillaceous.

DISCUSSION

Erythrodermic psoriasis is a rare variant of psoriasis and it may present acutely or may run a chronic course with frequent relapses. The chances of complications in this variant are far more common. The classical plaque psoriasis and pustular psoriasis may present with erythroderma.

30 patients with confirmed diagnosis of childhood psoriasis were assessed. Median age of presentation was 8 years in our study and most of the patients falling in the age range of 6-10 years. This is similar to study conducted in North India where age of presentation in boys was 6 to 10 years and age in girls was 10 to 14 years. Another study done in Saudi Arabia that showed mean age of 8.46 years.

Gender difference was not noted in our population that mimics with Australian study with large cohort of patients.

Most common type of psoriasis in our study was plaque psoriasis affecting 43.3% of the patients, which is same as the pattern seen in other studies^{8,12,13} Other patterns seen in our study include guttate psoriasis in 13% of cases and palmoplantar involvement in 10% of cases. While scalp, diaper and erythrodermic types were seen in 6.7% of cases each, pustular variety was present in only 3.3% of patients. It is of note that nail involvement was seen in only 10% of our patients which is significantly lower than seen in Chinese population (25.5%) 13 and North Indian study (31%).

As far as erythrodermic variant of psoriasis is concerned, study conducted in India by Sanden Dhar showed 5.1% frequency of erythrodermic variant, this is similar to our population that showed 6.7% of erythrodermic variant in pediatric age group.¹¹

CONCLUSION

Erythrodermic variant is a rare variant and should be diagnosed earlier in order to prevent the complications.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

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