

Childhood psoriasis: A clinical and epidemiological study in Samawa city

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Abstract

Background Childhood psoriasis is common, but it has not been adequately reported in our city.

Objectives This study evaluates the epidemiological and clinical findings in children with psoriasis and to compare the data with those from other studies.

Methods Thirty children with psoriasis were taken in this study which is done in outpatients dermatological clinic during the period from July, 2018 to December, 2018.

Results The age of our patients ranged from 6 months to 14 years, in which there are 17 boys and 13 girls. The Plaque type psoriasis and generalized distribution were the commonest findings. Positive family in (36.6%), koebnerization was (30%). The frequent symptom was pruritus (16.6%) and discomfort (10%).

Conclusion Childhood psoriasis is a different entity from adult psoriasis, early diagnosis, and appropriate management are particularly important in children to solve long-term disease-related psychosocial problems.

Key words

Psoriasis, guttate, childhood.

Introduction

Psoriasis is a common chronic inflammatory disorder of the skin with unknown etiology, it started in childhood in about one-third of the cases.¹ It is characterized by erythematous papules and plaques covered with dry silvery scale. The incidence of psoriasis among dermatological patients in childhood and adolescence was 3.8%,^{1,2} up to 40% of people with psoriasis have symptoms before they are 16 years old, and 10% get it before they are 10. In fact, the real incidence of childhood psoriasis is much higher than reported as several adult

patients with onset of the disease before the age of 16 never seek any medical help.² Though children present with similar clinical types of psoriasis seen in adults, lesions may be different in morphology, distribution and their clinical symptoms from those present in adult patients.³ The diagnosis of psoriasis is primarily based on clinical features.⁴ Pediatric psoriasis can have great long-term effects on the psychological health of diseased children. Additionally, pediatric psoriasis has been associated with certain comorbidities, such as obesity, hypertension, hyperlipidemia, diabetes mellitus and rheumatoid arthritis.^{1,2,5}

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Material and Methods

This cross-sectional study was done in outpatients' dermatological clinic in Al-Hussein

teaching hospital and private clinic from a period of July of 2018 to December of 2018. A total of 30 child patients with psoriasis their age ranges from 6 months-14years who were diagnosed, treated and followed up by dermatologist were enrolled. All patients were diagnosed with psoriasis clinically. The data were extracted from the patients or their families including:

1. Epidemiological data: age, gender, seasonal influence, familial history, and possible triggering factors.
2. Clinical features: clinical types of psoriasis, presenting sites, subjective symptoms, Koebner phenomenon, types of nail change, mucosa and joint involvements, associated disorders.

Results

30 patients with psoriasis, 17 boys and 13 girls. Their age ranged from 6 months to 14 years with a mean of 7.2 years. The mean age of boys and girls were 6.4 and 7.7 years respectively. The peak age of onset in boys was in the 12-14- and 2-4-year age group, whereas the majority of girls had an onset of psoriasis at 10-12 years. **Table 1** shows age group distribution among boys and girls. It appeared that lowest number of patients occurred in infants less than one year (2

patients), while the highest no. occurred in the age group between 10-12 in (7 patients).

Overall the result showed psoriasis occurred more in female than male in our study. The common sites of involvement in psoriasis were showed in **Table 2**, in which generalized plaque psoriasis was common i.e. 19 patients (63.3%).

Table 3 showed the common type of psoriasis in our patients. The psoriasis vulgaris (classical plaque psoriasis) was the most frequent type of psoriasis at the time of presentation i.e. 14 (46.6%) and it was most frequent in girls than boys. It was followed by scalp psoriasis, 5 patients (16.6%) and guttate psoriasis 4 patients (13.3%), only 2 (50%) of whom reported a history of flu-like illness or upper respiratory tract infection to precede the diseases. Positive family history of psoriasis was present in 11 patients (36.6%), mostly first-degree relative (parents/brothers/sisters). Koebnerization was observed in 9 patients (30%).

The frequent symptom was pruritus seen in 5 (16.6%) and discomfort in 3 patients (10%). Associated diseases were reported in one patient who had diabetes mellitus and vitiligo, one patient had vitiligo and alopecia areata and one patient suffering from morbid obesity due to side effects of topical and systemic steroid as **Figure 1**.



Figure1 Psoriasis

Table 1 Sex distribution according to age group.

Age group	Boys Number	Boys % of the total	Boys: Girls Ratio	Girls Number	Girls % of the total	Sum
0-2	1	3.3	1:1	1	3.3	2(6.6%)
2-4	3	10	3:1	1	3.3	4(13.3%)
4-6	2	6.6	2:2	2	6.6	4(13.3%)
6-8	2	6.6	2:1	1	3.3	4(13.3%)
8-10	0	0	0:6	6	20	6(20%)
10-12	2	6.6	2:5	5	16.6	7(23.3%)
12-14	3	10	3:1	1	3.3	4(13.3%)
Total	13	43.3	13:17	17	56.6	30(100%)

Table 2 No. of patients according to distributed site of psoriasis.

Site	Number of patients	%of the total
Generalized	19	63.3
Scalp	7	23.3
Trunk	2	6.6
Nail	1	3.3
Intertriginous	1	3.3

Table 3 No of patients according to type of psoriasis.

% of the total	Sum	% of the Sum	Boys	% of the Sum	Girls	Type of psoriasis
46.6	14	35.7	5	64.3	9	Vulgaris
16.6	5	40	2	60	3	Scalp
13.3	4	25	1	75	3	Guttate
6.6	2	100	2	0	0	Palmoplantar
6.6	2	50	1	50	1	Inverse
3.3	1	100	1	0	0	Sebopsoriasis
3.3	1	100	1	0	0	Erythroderma
3.3	1	0	0	100	1	Nail only
100	30	43.3	13	56.6	17	Total

Discussion

Childhood psoriasis is a well-acknowledged entity, but its exact prevalence is unknown.^{1,2} There are very little epidemiologic studies presented in the literature. Our study aimed to highlights psoriasis in pediatric age groups. Childhood psoriasis has been reported to differ from adult psoriasis in that it is pruritic more frequently, twice as common in females, and the lesions are quite thinner, softer, and less scaly.⁶ Certain clinical variants found in adults are rare in children, such as erythroderma, arthropathy, and localized and generalized pustular psoriasis. Regarding sex distribution, in this study, we found that there is a female predominance similar to findings observed by other studies.^{1,2,7} In contrast with earlier reports where most children had an onset of disease before 5 years

of age,^{7,8} the peak age of onset in our cases in boys was in the 12-14, whereas the majority of girls had an onset of psoriasis at 10-12 years. Variable familial incidence has been reported in childhood cases of psoriasis, ranging from 9.8% to 89%.^{2,4} We found a positive family history in only 36.6% of our patient but there were no correlations with the onset, gender, age or severity of psoriasis. The low familial incidence in our study could be explained by the ignorance of family members about the existence of the disease, or the actual absence of the disease at the time of presentation, which may subsequently appear. Results based on a single direct interview at the time of presentation suffer from this handicap. This has been proposed that the chance of finding familial involvement might increase in a multicentric collaborative

approach, as the chance of finding relatives with psoriasis increases with long-term follow up and detailed family study.⁹⁻¹¹ Plaque type lesions were the most common variety in this study, as observed in almost all previous studies,¹⁻⁵ although the percentage varies. The second common type was scalp psoriasis. Also, we observed that the generalized distribution was the common presentation of our patients. Other types of psoriasis was recorded in less frequency such as guttate, inverse psoriasis, in spite of the flexors and diaper regions, which are friction/trauma-prone sites, have been found by other studies to be more commonly involved in infants and young children.¹⁻³ This could be explained by short duration of study. Another marked difference between our series and others was the absence of any convincing mucosal involvement, while in one study the mucosa was involved in up to 7% of children,¹⁰ face involvement occurs in 4 patients (13.3%). Children in the countries such as ours are exposed to the ultraviolet rays of the sun all the time, so that less frequent involvement of sun-exposed sites, such as the face, and the opposite is true regarding the cold western countries.⁷

Conclusion

A chronic disfiguring skin disease, such as psoriasis in childhood is likely to have profound emotional and psychological effects and hence requires special attention. To understand psoriasis in childhood, it is essential to understand the morphologic types, natural history, and exogenous and endogenous factors responsible for the increased morbidity of this

disease.

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