

## **Psoriasis Modes Of Presentations Among Iraqi Children** **Khalil I Al- Hamdi MD ph D**

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Abstract

Background: Psoriasis is quite common in children. Many clinical variants are reported, some of them are atypical.

Objective: To shed light on presentation of psoriasis among Iraqi children.

Patients and Methods: Out patient based clinical epidemiological study that was carried out in dermatology department of Basrah teaching hospital during a period of 2 yrs., where a total of 104 psoriatic children were enrolled in the study.

They were 55 females and 41 males. Their age ranged between 4 months and 11 yrs. with a mean age of 6.8 yrs.

Results: The study showed that scalp, guttate and flexural psoriasis involving the napkin area or one or more of the body flexures were the commonest modes of presentation reported in 20.2%, 17.3%, 14.4% of the cases respectively.

Many other atypical forms like chronic blepharitis, perliche were also observed. Majority of patients were either infants or younger than 5 yrs. while majority of those with scalp and guttate types were older than 5 yrs.

Infection, fever and emotional upset are blamed as aggravating factors of the disease among our patients.

Conclusion: Psoriasis should be considered in any child with chronic recurrent skin lesion with poor response to treatment particularly if it is atypical.

### **Introduction:**

Psoriasis is quite common in children, although congenital psoriasis is very rare<sup>(1)</sup>. A part from typical psoriasis vulgaris many atypical clinical forms have been described.<sup>(2)</sup>

During daily clinical practice, an increasing number of children with psoriasis was noticed.

Sometimes the presentation may be so atypical creating a diagnostic problem, so this study was designed to shed light on the modes of presentation among psoriatic children in Basrah (south of Iraq).

### **Patients and methods:**

A cross sectional clinical study including a total of 96 psoriatic children, consulting the Dermatology department of Basrah teaching hospital and a private clinic during a period from April 2004 to June 2007. They were 55 females and 41 Males with Female / Male ratio of 1.3/1. Their age ranged between 4 months- 11 yrs., with mean age of 6.8 yrs.

A detailed history was taken from all patients or their parents, the onset, distribution of the disease and whether it is symptomatic or not.

In addition, patients or their parents were asked about family history of psoriasis.

All patients were fully examined to detect the clinical features of the disease. Skin biopsy and other relevant investigations were done for some of the patients in suspicious cases. Patients, whose their skin biopsy didn't show typical histopathological changes were excluded from the study.

### **Results:**

A total of 104 psoriatic children were enrolled in this study. Their age ranged between 4 months and 11 years, with a mean age of 6.8 yrs. They were 55 females and 41 males with F/ M of 1.3/1. The lesions were asymptomatic in 84.6% (88 pts) and in the remaining 16 patients (15.4%) the itching was mild. Family history of psoriasis was positive in 38pts (36.5%).

As it is shown in table -1- scalp psoriasis represented the commonest mode of presentation where 21(20.2%) child presented with single or multiple, psoriatic plaque of the scalp that didn't prefer the margin of the hair in 19(85.7%) of the patients. Auspitz's and candle signs were positive at these lesions.

Eighteen child (17.3%) presented with guttate psoriasis, that was associated or precipitated in 12 (66.6%) of the cases with recurrent tonsillitis.

On the other hand, flexural psoriasis affecting the napkin area or one or more of the body flexures was reported in 15 (14.4%) of our patients.

Palms and/or soles were the affected sites only in 13 (12.5%) of psoriatic children. Psoriasis vulgaris or plaque psoriasis was reported only in 9(8.65%) of the patients. Many atypical modes of presentation like chronic blepharitis and perliche were also observed.

The lesions of any type were chronic recurrent running an on and off course with unremarkable response to treatment and rapid relapse in the majority of the cases.

Table (2) showed that scalp, guttate and palmoplantar psoriasis were more common among children older than 5 years of age (52.4%, 61.1%, 61.4% respectively) while

majority of patients with flexural psoriasis were infants or less than 5 years of their age (46.6%).

Severe forms like pustular and erythrodermic psoriasis were also reported in this study particularly among infants.

Regarding the factors aggravating or precipitating the disease, infection and fever were blamed in 27.9% of the patients, followed by emotional stress in 15.2%, environmental factors like heat and cold in 4.9%, and teething in 2.9%. No factor was blamed to precipitate the disease in the remaining 51.1% of our patients or their parents. (Table 3).

Table (1) showing the types of psoriasis among the psoriatic children.

Type of psoriasis	Number of patients	%
Scalp psoriasis	21	20.2%
Guttate	18	17.3%
Palmoplantar psoriasis	13	12.5%
Flexural	15	14.4%
Plaque	9	8.65%
Pustular psoriasis	6	5.7%
Erythrodermic	2	1.9%
Chronic blepharitis	5	4.8%
Circinate	6	5.7%
Follicular	3	2.8%
Nail psoriasis	2	1.9%
Acrodermatitis continue	1	0.96%
<b>Total</b>	<b>104</b>	<b>100%</b>

Table (2) showing the distribution of psoriasis among age groups.

Type of psoriasis	<1yrs.	1-5	5-10	>10	Total
Scalp psoriasis	1 4.7%	9 (42.8%)	11 (52.4%)	0	<b>21</b>
Guttate	0	6 (33.3%)	11 (61.1%)	1 (5.5%)	<b>18</b>
Palmoplantar psoriasis	0	2 (15.4%)	8 (61.4%)	3 (23.1%)	<b>13</b>
Flexural	6 (40%)	7 (46.6%)	2 (13.3%)	0	<b>15</b>
Plaque	0	0	2 (28.6%)	7 (71.4%)	<b>9</b>
Pustular psoriasis	2	3	1	0	<b>6</b>
Erythrodermic	2	0	0	0	<b>2</b>
Blepharitis	0	2	3	0	<b>5</b>
Angular stomatitis	0	0	2	1	<b>3</b>
Follicular	0	1	2	0	<b>3</b>

<b>Nail psoriasis</b>	0	0	0	2	<b>2</b>
<b>Acrodermatitic continua</b>	0	0	1	0	<b>1</b>
<b>Circinate lesion</b>	0	1	2	3	<b>6</b>

Table (3) showing the aggravating and precipitating factors among psoriatic children.

The factor	No. of patients	%
No cause	51	49.1%
Infections and fever	29	27.9%
Emotional stress	16	15.2%
Environmental factors	5	4.9%
Teething	3	2.9%
<b>Total</b>	<b>104</b>	<b>100%</b>

### Discussion:

Psoriasis is a common, chronic, relapsing, disfiguring skin disease of unknown etiology that affects 1-3% of the population. In children the disease is quite common although, congenital psoriasis is very rare.<sup>(1)</sup> Among children, the disease may present with atypical modes that may create a diagnostic problem. To the best of our knowledge, no study was conducted previously about this subject in Iraq.

The study showed that the mean age of psoriatic children was 6.8 yrs. which is relatively lower than that reported in literature where peak age of onset was between 10-20 years.<sup>(2)</sup> On the other hand, the predominance of females in this study (1.3/1) is in agreement with that of previous study where females tend to develop psoriasis earlier than males<sup>(3,4,5)</sup> which is probably the cause behind the relatively earlier mean age of onset in comparison with other studies just mentioned above.

Mild itching was reported in 15.4% of the patients which is lower than that reported by other local study where moderate itching was reported in 89.3% of the cases.<sup>(6)</sup> The low incidence of itching among psoriatic children enrolled in this study is probably attributed to lower psychological impact of the disease on children in comparison with adult as itching is said to reflect the emotional status of the patient.<sup>(2)</sup>

Family history of psoriasis among our patients was 36.5% which is approximately similar to that reported by other studies.<sup>(6,7)</sup>

Apart from the common forms, several other patterns of psoriasis occur in children.<sup>(2)</sup>

The present work showed that the plaque psoriasis was reported only in 8.65% of patients in contrast to adult where this type is considered as the commonest variant.<sup>(2)</sup> In addition, the commonest mode of presentation among our patients was the scalp psoriasis that was reported in 20.2%, which is probably because the disease often first appears in the scalp where other signs of the disease may be long delayed.<sup>(2)</sup>

This finding is similar to that of other studies where scalp psoriasis is considered as the commonest variant in children and young adult<sup>(2)</sup> but unlike that of other studies, majority of lesions (85.7%) in the present work didn't prefer the hair margin.

On the other hand, psoriasis in 17.3% of our patients was of guttate type that is precipitated or associated in 66.6% of them by recurrent tonsillitis, which is similar to that of other studies.<sup>(2,8,9)</sup>

Furthermore, the flexural psoriasis involving the napkin area or one or more of body flexures in 14.4% of the cases, majority of them were either infants or below the age of 5 yrs. Which is in agreement with that of other studies?<sup>(2,8)</sup> It may occur as a result of koebner's phenomenon secondary to napkin dermatitis or prolonged use of nappies.

Psoriasis of the palms and / or the soles was the presenting modes in 12.5% of cases, which simulate and possibly misdiagnose as chronic hyperkeratotic eczema in the majority of cases. In addition, one child presented with localized pustular psoriasis affecting one toe in a form of acrodermatitis continua. Majority (61.4%) of the patients were older than 5 years of age. This finding is similar to that of other studies.<sup>(2,8)</sup>

Many other atypical modes were reported like perliche, and chronic unilateral asymptomatic blepharitis affecting mostly the upper eye lid were also reported. They were misdiagnosed as dermatitis or fungal infection but lack of itching and negative KOH wet preparation examination excluded these two possibilities.

Severe forms of psoriasis that is said to be rare in children<sup>(2,8)</sup>, were also reported in this study, 87.5% of them were either infants or younger than 5 yrs., which is thought to be precipitated by potent steroid and other vigorous treatment used in treating the chronic recurrent conditions of those patients.

Lastly, Fever, emotional stress, environmental factors and teething were recognized to precipitate the disease by our patients.

All these factors are blamed by other studies.<sup>(2)</sup> In others, where no factor was blamed, the disease may be precipitated by continuing subclinical infections<sup>(2)</sup> hidden stressful conditions as the present work dealt with children, who can't express their feeling remarkably or by other unrecognized factors.

In conclusion, psoriasis should be considered in any child with chronic recurrent skin lesions with poor response to treatment, particularly if it is atypical.

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