

Psoriasis

Modes of presentations among children in southern Iraq

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ABSTRACT

الأهداف: لإلقاء الضوء على كيفية ظهور مرض الصدفية عند الأطفال.

الطريقة: أجريت دراسة سريرية وبائية في شعبة الأمراض الجلدية، مستشفى البصرة التعليمي - العراق، لمدة عامين. تمت دراسة (104) أطفال مصابين بالصدفية ولقد كانوا (59 أنثى و 45 ذكراً) تراوحت أعمارهم بين 4 أشهر - 11 عام، وبمعدل عمر 6.8 عام. حيث تم فحص المرضى سريرياً بعد أخذ تاريخ المرض مفصلاً.

النتائج: أظهرت الدراسة إن (صدفية فروة الرأس، الصدفية المطرية، وصدفية الطيات) هي أكثر الأنواع شيوعاً حيث سجلت في 20.2% - 17.3% - 14.4% تبعاً، كما تم تسجيل عدة أطوار غير مألوفة لالتهاب جفن العين وزاوية الفم. كان أغلب المرضى الذين يعانون من صدفية الطيات أما رضع أو تقل أعمارهم عن 5 سنوات، بينما كانت أعمار المصابين بصدفية فروة الرأس والصدفية المطرية أكثر من 5 سنوات، وقد لوحظ إن الحمى، والالتهابات والشد النفسي هي أكثر العوامل المهيجة للصدفية عند الأطفال المشمولين بالدراسة.

خاتمة: يجب أن تعتبر الصدفية عند كل طفل يعاني من طفح جلدي مزمن ومتكرر مع استجابة قليل للعلاج وقابلية رجوع عالية خصوصاً إذا كانت بشكل غير مألوف.

Objective: To elucidate on the presentation of psoriasis among children in southern Iraq.

Methods: This is an outpatient based, cross sectional clinical study, that was carried out in the Dermatology Department of Basra Teaching Hospital, Basra, Iraq, from April 2004 to June 2007, where a total of 104 psoriatic children were enrolled in the study. They were 59 females and 45 males, with a mean age of 6.8 years.

Results: Among 104 psoriatic children, the study showed that scalp (20.2%), guttate (17.3%), and flexural psoriasis involving the napkin area (14.4%)

or one or more of the body flexures, were the common modes of presentation reported in most cases. Many other atypical forms were also reported, and many aggravating factors were recognized.

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

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Psoriasis is a common chronic, relapsing, inflammatory skin disease with a strong genetic basis, affecting 1-2% of the population, of which 30% are children below 16 years of age.¹ This disease seems to be quite common in children, although congenital psoriasis is very rare.² The disease has a bimodal peak of onset, one in childhood, and the other after the age of 60 years.¹ Apart from typical psoriasis vulgaris, many atypical clinical forms have been described.² Guttate psoriasis is generally believed to be the type of psoriasis that affects mostly children and adolescents, following in most cases, antecedent tonsillopharyngitis, and to a lesser degree viral infections.^{3,4} However, in children and adolescents, chronic plaque psoriasis has been found to affect females more than males, although this may be due to the earlier age of onset among females.^{5,6} Psoriasis involving the face appears more commonly in children than adults.⁷ In addition, the disease may appear first in the scalp, where it may present as pityriasis amiantacea.² The more serious forms, such as pustular and erythrodermic psoriasis, are said to occur rarely in children.^{2,8} Inverse or flexural, and napkin psoriasis are also reported among children, particularly

in infants between 2-8 months.⁹ Furthermore, psoriasis may mimic chronic blepharitis or perleche, as unilateral small plaques of psoriasis on one eyelid, angle of the mouth extending to the lid margin, and cheek.² During daily clinical practice, an increasing number of children with psoriasis were 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 Basra, southern Iraq.

Methods. This is an outpatient based, cross sectional clinical study, involving a total of 104 psoriatic children, consulting at the Dermatology Department of Basra Teaching Hospital, Basra, Iraq, and a private clinic from April 2004 to June 2007. A detailed history was obtained from all patients or their parents, on the onset, distribution of the disease, and whether it is symptomatic or not. In addition, patients or their parents were asked regarding family history of psoriasis. All patients were carefully examined, to detect the clinical features of the disease. Skin biopsy,

and other relevant investigations were carried out for some of the patients in suspicious cases. Patients, whose skin biopsy did not show typical histopathological changes of psoriasis, were excluded from the study, as children from infancy to 11 years of age with clinically typical psoriasis, that was proved by histopathological examination were included in this study. The consent of the patients and their parents were taken prior to inclusion in the study. This study was approved by the local Ethical Committee of the Basra Teaching Hospital. For statistical analysis we used Statistical Package for Social Sciences Version 11.

Results. A total of 104 psoriatic children was enrolled in this study. Their age ranged between 4 months and 11 years, with a mean age of 6.8 years. They were 59 females and 45 males with a female:male ratio of 1.3/1. The lesions were asymptomatic in 84.6% (88 patients), and in the remaining 16 patients (15.4%), the itching was mild. Family history of psoriasis was positive in 38 patients (36.5%). As shown in Table 1, scalp psoriasis represented the most common mode of presentation,

Table 1 - Types of psoriasis among psoriatic children (N=104).

Type of psoriasis	n	(%)
Scalp psoriasis	21	(20.2)
Guttate	18	(17.3)
Palmoplantar psoriasis	13	(12.5)
Flexural	15	(14.4)
Plaque	9	(8.6)
Pustular psoriasis	6	(5.8)
Erythrodermic	2	(1.9)
Chronic blepharitis	5	(4.8)
Angular stomatitis	5	(4.8)
Circinate	6	(5.8)
Follicular	3	(2.9)
Nail psoriasis	2	(1.9)
Acrodermatitis continua	1	(0.96)
Total	104	(100)

Table 3 - Showing the aggravating and precipitating factors among psoriatic children (N=104).

Factors	n	(%)
No cause	51	(49.1)
Infections and fever	29	(27.9)
Emotional stress	16	(15.2)
Environmental factors	5	(4.8)
Teething	3	(2.9)
Total	104	(100)

Table 2 - The distribution of psoriasis among age groups (N=104).

Type of psoriasis	Total	Age groups			
		year 1>	1-5	5-10	10<
		n (%)			
Scalp psoriasis	21	1 (4.7)	9 (42.9)	11 (52.4)	
Guttate	18		6 (33.3)	11 (61.1)	1 (5.5)
Palmoplantar psoriasis	13		2 (15.4)	8 (61.5)	3 (23.1)
Flexural	15	6 (40)	7 (46.7)	2 (13.3)	
Plaque	9			2 (22.2)	7 (77.8)
Pustular psoriasis	6	2 (33.3)	3 (50)	1 (16.7)	
Circinate lesion	6		1 (16.7)	2 (33.3)	3 (50)
Blepharitis	5		2 (40)	3 (60)	
Angular stomatitis	3			2 (66.7)	1 (33.3)
Follicular	3		1 (33.3)	2 (66.7)	
Nail psoriasis	2				2 (100)
Erythrodermic	2	2 (100)			
Acrodermatitis continua	1			1 (100)	

where 21 (20.2%) of the children presented with single or multiple, psoriatic plaque of the scalp that did not prefer the margin of the hair in 18 (85.7%) of the patients. Auspitz's and candle signs were positive at these lesions. Eighteen children (17.3%) presented with guttate psoriasis, that was associated or precipitated in 12 (66.6%) of the cases, with recurrent tonsillitis. Flexural psoriasis affecting the napkin area, or one or more of the body flexures was reported in 15 of our patients. The palms or soles of the feet was the affected sites only in 13 of the psoriatic children. Psoriasis vulgaris or plaque psoriasis was reported only in 8.65% of the patients. Many atypical modes of presentation, like chronic unilateral asymptomatic blepharitis, affecting mostly the upper eyelid and perluque were also observed. Lesions of any type were chronic recurrent, running an 'on and off' course with unremarkable response to treatment, and rapid relapse in most cases. Table 2 shows that the scalp, guttate, and palmoplantar psoriasis were more common among children older than 5 years of age, while most patients with flexural psoriasis were infants, or children less than 5 years of age. 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 the most common in 27.9% of the patients (Table 3).

Discussion. Psoriasis is a noncontagious, chronic, relapsing, disfiguring skin disease that has a severe psychological, and social impact. In younger children, the disease may present with atypical modes, that any dermatologist should be familiar with, to overcome any diagnostic problem. The study showed that the mean age of psoriatic children was 6.8 years, which is relatively less than that reported in previous research, where peak age of onset was between 10-20 years.² However, the predominance of females in this study, was in agreement with that of previous studies, where females tend to develop psoriasis earlier than males, which is probably the cause behind the relatively earlier mean age of onset, in comparison with other studies.^{2,4,10} Mild itching was reported in 15.4% of the patients, which is lower than that reported by other local studies, where moderate itching was reported in 89.3% of the cases.¹¹ The low incidence of itching among psoriatic children enrolled in this study, was probably attributed to lower psychological impact of the disease in children, in comparison with adults, as itching is said to reflect the emotional status of the patients. Family history of psoriasis among our patients was 36.5%, similar to that reported by other studies.^{11,12} The present study indicates that plaque psoriasis was reported only in 8.65% of patients, in contrast to adults, where this type

is considered as the most common variant.² In addition, the common mode of presentation among our patients was scalp psoriasis reported in 20.2%, probably due to the fact that the disease often first appears in the scalp, where other signs of the disease may be long delayed.² This finding is similar to that of other studies, where scalp psoriasis is considered the most common variant among children and young adults,^{2,7} unlike other studies, lesions in 85.7% of our patients do not prefer the hair margin.⁴ Psoriasis in 17.3% of our patients was of the guttate type, which was precipitated or associated in 66.6% by recurrent tonsillitis, which is similar to that of other studies.^{2,8,13} Furthermore, flexural psoriasis was reported in 14.4% of the cases, most of them were either infants or younger than 5 years. This is in agreement with the results of other studies.^{2,9} It may occur as a result of Köbner's phenomenon, secondary to napkin dermatitis or prolonged use of nappies. Psoriasis of the palms, or the soles was the presenting mode in 12.5% of cases, which simulate, and was possibly misdiagnosed as chronic hyperkeratotic eczema, and most (61.4%) were older than 5 years of age. This finding is similar to the studies carried out by Griffiths et al,² and Baron and Taylor.⁸ Many other atypical modes were reported like perluque, and chronic unilateral asymptomatic blepharitis. They were misdiagnosed as dermatitis or fungal infection, however, lack of itching and negative potassium hydroxide wet preparation examination excluded these 2 possibilities.

Severe forms of psoriasis, said to be rare in children,^{2,8} were also reported in this study, 87.5% of them were either infants or younger than 5 years, which is thought to be precipitated by potent steroids, 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 in our patients. All these factors are considered in other studies.² In others, where no factor was suspected, the disease may be precipitated by continuing sub clinical infection,² hidden stressful conditions as the present work dealt with children, who are unable express their feelings 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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