

PEDIATRIC DERMATOLOGY: A STUDY OF PATTERN OF SKIN DISEASES AMONG CHILDREN ATTENDING BASRAH MATERNITY AND CHILDREN HOSPITAL

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ABSTRACT

Skin diseases are common among children. However, only few epidemiological surveys are available in the literature. This study was conducted at Basrah Maternity and Children Hospital to determine the spectrum and pattern of skin diseases among children attended the pediatric outpatient clinic in this hospital. The study was carried out from January 2002 to January 2004. The total number of those children who had been examined was 1251 with skin disorders and many of them had more than one disorder resulting in 1274 skin disorders. The infections and infestations together were the most common (44.2%). The eczema | dermatitis constituted (39.0%) followed by bacterial infection (13.6%), parasitic infestations (13.2%), viral infections (9.6%) and fungal infections (7.8%). Atopic dermatitis was the most common type of eczema in children which constituted 12.5%. The most common disorders among infants was diaper dermatitis (31.3%), while in preschool and school age groups were impetigo (13.0%) and pityriasis alba (11.2%) respectively. The study documents that skin diseases in childhood are common and these data may be useful in planning for health care for children.

INTRODUCTION

Pediatric dermatology is a new topic, to provide clinical care and promote researches and education in skin diseases of infancy, childhood and adolescence. The field of pediatric dermatology has gained significant recognition in the past several years.^[1-3] Skin diseases in childhood are common and may constitute at least 30% of all outpatient visits to pediatricians.^[4-9] The prevalence of them, such as atopic eczema, is increasing.^[10] Most childhood skin diseases are diagnosed by general practitioners who refer the more difficult cases to the local dermatologist or pediatrician. However, many parents will seek advice initially from a pharmacist.^[11] There are no previous studies regarding the pattern of skin disorders among children in Basrah Governorate and little in Iraq^[5], for this reason the study was conducted to document the spectrum and pattern of skin disorders among children attended pediatric hospital.

PATIENTS AND METHODS

The study was based on 1251 children aged <14 years seen in the out-patient clinic of pediatric department in Basrah Maternity and Children Hospital. The study was conducted from January 2002 to January 2004. The cases studied either referred from pediatrician or directly came for examination. A thorough skin examination was done and relevant investigations were carried out whenever necessary. The patients were divided into three

groups according to age, those under one year (infant), and one to less than six years (preschool), and equal to or more than six years (school age) children. The prevalence and other descriptive data of all diagnoses were analyzed.

RESULTS

A total of 1251 children were enrolled in the study. The percentage of boys was 51.0 % while girls 49.0%. The infants constituted 384 (30.7%), preschool age children constituted the largest group within the patient population (40.0%) and school age group was 367 (29.3%) (Table-1).

Table 1. *Distribution of children with skin disorders according to age and sex.*

Sex	Age distribution (years)			Total	%
	<1 No. (%)	1 <6 No. (%)	6-14 No. (%)		
Boys	187(48.7)	254(50.8)	196(53.4)	637	51.9
Girls	197(51.3)	246(49.2)	171(46.6)	614	49.1
Total	384(30.7)	500(40.0)	367(29.3)	1251	100

A total of 1274 skin disorders were recorded, distributed as 387, 531 and 356 among infants, preschool and school age groups respectively. Infections and infestations together were the

most common dermatoses (44.2%). Eczema / dermatitis was (39.0%), followed by bacterial infection (13.6%), parasitic infestation (13.2%), viral infections (9.6%) and fungal infections (7.8%). Atopic dermatitis (12.5%) was the most common eczematous dermatitis, while impetigo

(7.4%), insect bites (7.7%), varicella (3.8%) and tinea capitis (3.9%) were common among bacterial, parasitic, viral and fungal infections respectively (Table-2).

Table 2. *The pattern and frequency of skin disorder among children according to age groups.*

Skin disorders		Age distribution (years)			Total	%
		<1	1 <6	6-14		
1	Eczema & dermatitis	265	141	84	490	39.0
	Atopic dermatitis	87	61	8	156	12.5
	Pityriasis alba	-	49	41	90	7.2
	Seborrheic dermatitis	58	6	-	64	5.2
	Contact dermatitis	-	11	35	46	3.7
	Diaper dermatitis	120	14	-	134	10.7
2	Bacterial infections	2	109	59	170	13.6
	Impetigo	2	65	26	93	7.4
	Folliculitis	-	35	13	48	3.8
	Furuncles & carbuncles	-	9	20	29	2.3
3	Parasitic infestations	35	85	45	165	13.2
	Insect bites	33	45	18	96	7.7
	Scabies	2	20	10	32	2.6
	Pediculosis capitis	-	15	10	25	2.0
	Cutaneous lishmaniasis	-	5	7	12	1.0
4	Viral infections	15	74	31	120	9.6
	Herpes simplex	-	10	2	12	1.0
	Varicella (chicken pox)	-	32	15	47	3.8
	Warts	-	22	11	33	2.6
	Rubella (measle)	-	7	3	10	0.8
	Roseola infantum	15	3	-	18	1.4
5	Fungal infections	24	41	33	98	7.8
	Tinea capitis	-	25	24	49	3.9
	Tinea corporis	-	-	6	6	0.5
	Oral candidiasis (thrush)	24	15	-	39	3.1
	Pityriasis versicolor	-	1	3	4	0.3
6	Miscellaneous	46	61	94	201	16.0
	Alopecia areata	-	6	18	24	1.9
	Paronychia	-	2	10	12	1.0
	Icthyosis	-	-	3	3	0.2
	Xeroderma pigmentosa	-	2	-	2	0.1
	Cellular Nevi	2	29	21	52	4.2
	Freckles	-	-	4	4	0.3
	Lentigines	-	1	5	6	0.5
	Mongolian spot	10	5	-	15	1.2
	Keloid	-	-	2	2	0.2
	Haemangioma	4	2	-	6	0.4
	Salmon patches	20	3	-	23	1.8
	Vitiligo	-	2	7	9	0.7
	Urticaria	-	10	8	18	1.4
	Psoriasis	-	2	4	6	0.5
	Pityriasis rosea	-	-	5	5	0.4
	Papular acrodermatitis	-	17	7	24	1.9
	Infantile acne	5	-	-	5	0.4
	Miliaria	5	-	10	15	1.2

The most common disorder among infants was diaper dermatitis (31.3%), while in preschool and school age groups, impetigo (13.0%) and pityriasis alba (11.2%) respectively (Table-3).

Table 3. *The commonest five skin disorders among children according to age groups*

Ranking skin disorders	Age distribution in years		
	<1 (No. / %)*	1 < 6 (No. / %)*	6 -14 (No. / %)*
First	Diaper dermatitis (120 /31.3)	Impetigo (65/13.0)	Pityriasis alba (41/11.2)
Second	Atopic dermatitis (87 /22.7)	Atopic dermatitis (61/12.2)	Contact dermatitis (35/9.5)
Third	Seborrheic dermatitis (58 /15.1)	Pityriasis alba (49/9.8)	Impetigo (26 /7.1)
Fourth	Insect bites (33/8.60)	Insect bites (45/9.0)	Tinea capitis (24/6.5)
Fifth	Oral candidiasis (24/ 6.3)	Folliculitis (35/7.0)	Furuncles & carbuncles (20/5.4)

*Percentage within the age groups.

DISCUSSION

This article reviewed the most common skin disorders seen in children who attended the outpatient clinic of pediatric in a specialized hospital for maternal and childhood diseases in Basrah in southern of Iraq. Skin diseases in children are important health problems and about 20 to 30% of children seen by pediatricians present with problems related directly or indirectly to skin.^[4-9] Although there are various published studies on pediatric dermatology^[3-9], but no studies in Basrah city and little information is available about the prevalence of skin conditions among children in Iraq.^[5] The results showed that infections and infestations were the commonest, this result agreed with other studies.^[3-7] However, others found that eczematous dermatoses were the most prevalent skin disorders among children.^[8-10] This discrepancy might be explained on geographical and climatic bases and also can be attributed to poor hygienic and sanitary conditions, lack of awareness and poor health services which are important factors responsible for higher incidence of skin infection in developing countries. A previous study in Baghdad /Iraq in 1989 showed that infection and infestations constituted 68.0% of skin disorders among children.^[5] The present study also showed that atopic dermatitis is the most common type of eczema and this agreed with most studies^[10,12-16], but there is a considerable

variation in the prevalence of atopic dermatitis between countries in various studies due to the design of study, racial, diet, custom-habit and other factors.^[10,16] The prevalence of atopic dermatitis has been increased two to three folds over the last 30 years and appeared to be higher in developed than developing countries.^[10] The reason for this increase is still unknown but may be due to changes in environment pollutants, shift from breast feeding and altering diagnosis criteria.^[10,11-16] Pityriasis alba which is a common hypopigmented dermatitis was high in our study, although the exact incidence has not been described and its etiology is still controversial, up to one third of children may have this disorder.^[17] Impetigo and pityriasis alba are common in preschool and school age children which is similar to other studies.^[11, 17] The study showed that Diaper dermatitis is a common skin disorder among infants. Diaper dermatitis is commonly seen in general pediatric practice in about 7% to 35% of infants.^[18-20] This study documents the pattern and frequency of skin diseases in children attended specialized pediatric hospital. The conclusion that the skin disorders are common problems among children and further study about seasonal variation in incidence of skin disorders among children is recommended. Data may be useful in planning of health care programs for children.

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