

Pattern of Rash in Paediatric Age Group - A Clinical Study

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Abstract

Background: Skin rash, defined as the change in color, appearance or texture of skin, is the most common reason for attendance in dermatology clinics in pediatric age group. The variety of causes and presentation and non-feasibility of extensive investigations, necessitates the need for thorough history taking and a good clinical acumen to come to a diagnosis.

Objective: To know the various presentation of rash in paediatric age group and their clinical features which help us in differential diagnosis

Materials and Methods: This is a descriptive study of 230 children with skin rash at the time of presentation, aged <12 years, conducted from January 2019 to August 2019 (8 months), in the Department of DVL, Kurnool medical college. Rash exclusively in the genital region was excluded. Relevant history was taken, clinical examination done and data analysed.

Results: Out of 2150 children who attended to DVL Dept OPD, 1044 were aged <12 years. 230 children with rash were considered for the study. The most common causes for rash were impetigo(11%), acute urticaria(9%), papular urticaria(9%), scabies(9%), miliaria (9%) viral exanthems(5%) and atopic dermatitis(5%). Others included psoriasis, acrodermatitis enteropathica, SSSS, xeroderma pigmentosa, pyoderma gangrenosum, urticaria pigmentosa, EDV, herpes zoster, EMF, candidiasis, DRESS, scarlet fever, SD, generalized LP, perioritis, molluscum contagiosum, pityriasis rosea, varicella, tinea corporis, tinea versicolor, Gianotti-Crosti syndrome and contact dermatitis.

Conclusion: This study was done to know the various causes and pattern of rash in children presenting to our institution

Key Words: Rash, children, pediatric, diagnosis, acute urticaria, papular urticaria, impetigo, scabies, viral exanthem, pityriasis rosea, SSSS, xeroderma pigmentosa, psoriasis, acrodermatitis enteropathica, xeroderma pigmentosa, urticaria pigmentosa, EDV, pyoderma gangrenosum, varicella, perioritis, EMF, molluscum.

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I. Introduction

Skin rash, defined as the change in color, appearance or texture of skin, is the most common reason for attendance in dermatology clinics in pediatric age group. The anxiety in parents due to the rash, variety of causes and presentation and non-feasibility of extensive investigations, necessitates the need for thorough history taking and a good clinical acumen to come to a diagnosis. Most parents are worried about the nature of the rash, its seriousness and their long-term sequelae.

Objective:

To know the various presentation of rash in paediatric age group and their clinical features which help us in differential diagnosis

II. Materials And Methods

This is a descriptive study of 230 children with skin rash at the time of presentation, aged <12 years. The study was conducted from January 2019 to August 2019, a period of 8 months, in the Department of Dermatology, Venereology and Leprosy, Government General Hospital and Kurnool medical college, Kurnool, Andhra Pradesh.

Children <12y, with skin rashes were considered for the study. Rash present exclusively in the genital region was excluded. Relevant history regarding the onset of the rash, progression, recurrence and precipitating factors, was taken from the attendants, mostly the mother. Thorough clinical examination was done by stripping

the child as much possible, in adequate natural light and findings were noted. Adequate cover and privacy was provided to adolescent children.

The type of rash, their distribution and other relevant clinical findings were noted, a diagnosis was made and data analysed.

III. Results

Out of 2150 children who attended to DVL Dept OPD, 1044 were aged <12 years. 230 children with rash on the skin were considered for the study. Rash present exclusively on the genitalia was excluded.

Out of 230 children, 133(58%) were male children and 97(42%) were female children. The patients belonged to the age group of infants(7%), toddlers(13%), pre-school children(21%), prebuscent(54%) and adolescents(5%)

A total of thirty types of rash were identified in this study. The most common causes for the rash were impetigo in 25 cases (11%), acute urticaria in 20 cases(9%), papular urticaria in 20 cases(9%), scabies in 20 cases(9%), miliaria in 20 cases(9%), viral exanthems in 12 cases (5%) and atopic dermatitis in 11 cases(5%). Others included psoriasis(5 cases), acrodermatitis enteropathica(3), SSSS(3), xeroderma pigmentosa(3), pyoderma gangrenosum(2), urticaria pigmentosa(3), EDV(2), herpes zoster(5), EMF(5), candidiasis(10), DRESS(1), scarlet fever(2), SD(5), generalized LP(5), perioritis(9), molluscum contagiosum(5), pityriasis rosea(10), varicella(4), tinea corporis(2), tinea versicolor(10), gianotti crosti syndrome(2) and contact dermatitis(4)

Table 1: Age and sex wise distribution of children

Age group	Sex		Total(out of 230)	Percentage
	Male children	Female children		
Infants (<1y)	9	7	16	7%
Toddlers(1-3 y)	20	10	30	13%
Preschool(3-6y)	29	19	48	21%
Prebuscent(6-10y)	68	57	125	54%
Adolescent	7	4	11	5%

Table 2: Disease wise distribution

Disease	No. of male children	No. of female children
<i>Acute urticaria</i>	12	8
<i>Papular urticaria</i>	10	10
<i>Impetigo</i>	14	11
<i>Psoriasis</i>	2	3
<i>Acrodermatitis enteropathica</i>	1	2
<i>SSSS</i>	2	1
<i>Xeroderma pigmentosa</i>	3	-
<i>Pyoderma gangrenosum</i>	1	-
<i>Urticaria pigmentosum</i>	3	-
<i>Epidermodysplasia verruciformis</i>	2	-
<i>Herpes zoster</i>	3	2
<i>Erythema multiforme</i>	2	3
<i>Candidiasis</i>	5	5
<i>DRESS</i>	-	1
<i>Scarlet fever</i>	2	-
<i>Seborrhoeic dermatitis</i>	4	1
<i>Generalized lichen planus</i>	4	1
<i>Atopic dermatitis</i>	5	6
<i>Perioritis</i>	5	4
<i>Miliaria</i>	11	9
<i>Molluscum contagiosum</i>	3	2
<i>Pityriasis rosea</i>	5	5
<i>Varicella</i>	3	1
<i>Tinea corporis</i>	1	1
<i>Tinea versicolor</i>	5	5
<i>Gianotti-crosti syndrome</i>	2	-
<i>Viral exanthem</i>	9	3
<i>Contact dermatitis</i>	1	3
<i>Scabies</i>	11	9
<i>Varicella gangrenosum</i>	1	0

IV. Discussion

A very good clinical acumen and history taking skills are required to identify the various causes and presentations of rash in this age group. Children below 5 years are unable to express their symptoms, and the history from the informer becomes important. Repeated probing becomes necessary in some cases to extract correct information.

Complete clinical examination of children with good lighting is important for identifying the nature of rash and coming to a differential diagnosis. Inability to carry out extensive investigations in children makes clinical examination more important.

Skin rash in children causes considerable anxiety in the care takers. They are concerned about the nature and cause of the rash, prognosis and long-term sequelae. Most parents link the onset of rash to an insect bite, a food item ingested or to a trauma. Hence, it is important for the treating dermatologist to correctly diagnose the rash and identify precipitating factors, if any.

It's also important to counsel the parents that not all skin rash in pediatric age group is serious. Some like acute urticaria, papular urticaria, pityriasis rosea are self-limiting, whereas others like atopic dermatitis, psoriasis and lichen planus have a chronic relapsing course with or without sequelae. On the other end of the spectrum, we have serious illnesses like staphylococcal scalded skin syndrome(SSSS), DRESS and EMF which can prove fatal to the child.

Therefore, a correct diagnosis, identification of precipitating factors and counselling of parents regarding the nature of the rash is mandatory.

V. Conclusion

This study was done to know the various causes and pattern of rash in children presenting to our institution. Not all rash in pediatric age group are serious, and most heal without any long term sequaele. Most common cause of rash in our study was acute urticaria and papular urticaria. Drug rash is very rare in children and therefore should be considered after carefully ruling out other causes. Counselling of the caretakers plays an important role in treating the rash as well as alleviating the anxiety in the parents.



Acute urticaria



Papular urticaria



Scabies



P.Rosea with herald patch



Erythema multiforme



Molluscum contagiosum



Acrodermatitis enteropathica



Impetigo contagiosa



Miliaria pustulosa



Candidiasis



DRESS



SSSS



Herpes Zoster



Tinea



Scarlet fever



Gianotti crosti syndrome



Psoriasis



Pyoderma gangrenosum



Varicella gangrenosum



Xeroderma pigmentosum



Urticaria pigmentosa



EDV



perioritis



Atopic dermatitis



Lichen planus



Seborrhoeic dermatitis



varicella



Irritant contact dermatitis

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