



A STUDY ON PATTERN OF PAEDIATRIC DERMATOSES IN PATIENTS ATTENDING A TERTIARY CARE CENTRE

Paediatrics

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ABSTRACT

BACKGROUND: Paediatric dermatoses varies from adult dermatoses in terms of clinical presentation, treatment and prognosis. This creates a special interest in this field. Skin diseases are major health issues in this age group and it reflects the status of public health and personal hygiene of the community. The present study was done to evaluate the pattern and spectrum of skin disorders in paediatric population in dermatology outpatient department of a tertiary care centre.

METHODS: A cross-sectional study was conducted in dermatology outpatient department of Govt. Kilpauk medical college hospital, Chennai from July 2017 to December 2017. All children upto 12 years attending the Dermatology OP from July 2017 to December 2017 were included. A total of 2247 children (1228 Male, 1019 Female) were included in the study. A detailed history, thorough clinical, cutaneous and systemic examination was done along with relevant investigation as and when needed. The findings were recorded in proforma and data were analyzed.

RESULTS: A total of 2247 children were included in the study. Out of 2247 children there were about 1228 males and 1019 were Females. Infection and infestations (59.1%) formed the majority of dermatoses followed by IBR (18.4%) and miliaria (9.88%). Among infections impetigo was common and among infestations scabies was the most common disorder. Some of the rarest dermatoses were also seen during the study since it is a tertiary care hospital.

CONCLUSION: Infection and infestation were the common disorder in our study followed by insect bite allergy, which reflects the need for improving the personal hygiene, skin care and socio economic status of the society.

KEYWORDS

Dermatoses, Infection, Paediatric.

INTRODUCTION

Dermatological problems constitutes at least 30% of all outpatient visits to a paediatrician and 30% of all visits to a dermatologist involves children^(1,2). The pattern of skin diseases varies across the countries. In developed countries, eczemas were common whereas in developing countries infections are still the commonest dermatoses⁽³⁾. The pattern of skin disorder is closely influenced by poverty, climate, malnutrition, overcrowding, low hygiene and low socio economic status in many parts of India.

The prevalence of skin disease among children in various part of India ranges from 8.7% to 35.5%^(4,5). Majority of dermatoses belong to infections, followed by eczematous and hypersensitive reactions. Different degrees of exposure to external factors and different levels of functional development of skin may give rise to differential prevalence of dermatoses among infants, toddlers and children⁽⁶⁾.

Monitoring the epidemiology of cutaneous disorders in children help in planning relevant educational programs and preventive measures. This study was done to evaluate the pattern of various dermatoses prevalent among children attending our tertiary care centre.

MATERIAL AND METHODS

Study design cross-sectional study. This study was conducted during July 2017 to December 2017 in the department of dermatology in tertiary care centre, Govt Kilpauk medical college hospital, Chennai. All children up to 12 years attending the outpatient department directly or referred from other departments were enrolled in this study. Diagnosis was made by a dermatologist based on detailed history, clinical examination, cutaneous and systemic examination. Haematology, Radiology and other relevant investigations like KOH examination, Tzanck test, skin biopsy were done as and when needed. Diagnosis was based on clinical examination and supportive investigations. Findings were recorded and results were analyzed.

RESULTS

During this study period of six months, a total of 2247 children were examined. Out of the study group operation 1228 were male and 1019 were female children. Male Female is 1.2:1. Table 1 show the Age and sex distribution.

TABLE 1 - AGE AND SEX DISTRIBUTION OF CHILDREN

AGE (Years)	MALE	FEMALE	TOTAL	PERCENTAGE (%)
<1	99	83	182	8.09
>1 -upto 5	560	365	925	41.16
>5 - upto 12	568	572	1140	50.73
Grand total	1227	1020	2247	

Various Dermatoses encountered in this study is shown in Table 2

TABLE 2 - PATTERN OF VARIOUS DERMATOSES

DERMATOSES	TOTAL NO OF CHILDREN	PERCENTAGE (%)
Infection	897	39.92
Infestation	432	19.23
Insect bite reaction (IBR)	414	18.42
Miliaria	222	9.88
Urticaria	75	3.34
Pityriasis rosea	63	2.80
Dermatitis eczema	48	2.14
Lichen planus	9	0.4
Psoriasis	6	0.27
Others	81	3.6

Infection and infestation were the most common accounting to 59.1% of total cases followed by IBR (18.42%) and miliaria (9.8%)

Table 3 shows the pattern of infection and infestation. Among the various infections and infestations scabies was the leading skin disorder (16.8%). Among the infections, bacterial infections (456 cases) were the most common followed by viral (225 cases) and fungal (216 cases) infections. In bacterial, 369 cases of impetigo and 87 cases of Folliculitis were seen accounting for 16.4% and 3.8% of total cases respectively. In viral infection HFMD was the predominant followed by molluscum contagiosum and wart. In fungal, tinea corporis was common followed by tinea versicolor.

Among infestations scabies were the commonest followed by pediculosis capitis. Scabies was the leading cause of dermatoses (16.8%) among infections and infestations in our study.

TABLE 3 - PATTERN OF INFECTION AND INFESTATION

INFECTIONS	NO .OF CASES	Percentage of total cases
BACTERIAL (456cases)		

Impetigo	369	16.4%
Folliculitis	87	3.8%
VIRAL (225 cases)		
Hand foot mouth disease	135	6%
Molluscum Contagiosum	39	1.7%
Wart	33	1.4%
Varicella	6	0.27%
Varicella zoster	6	0.27%
Viral exanthema	6	0.27%
FUNGAL (216 cases)		
Tinea corporis	114	5%
Tinea versicolor	96	4.2%
Candidiasis	6	0.27%
INFESTATIONS (432 cases)		
Scabies	378	16.8%
Pediculosis capitis	48	2.1%
Cutaneous larva migrans	6	0.27%

Others included in the category were:

Lichen striatus and nitidus	9
Naevusanemicus	7
Nevus achromicus	6
Vitiligo	4
Erythema toxicum neonatorum	11
Congenital ichthyosis	6
Alopecia areata	2
Neonatal acne	2
Henoch schonlein purpura	2
Mongolian spots	11
Palmar plantar hyperhydrosis	8
Aplasia cutis congenital	2
Transient cephalic pustulosis	2
Aphthous ulcers	9

Among congenital Dermatoses, 6 cases of congenital ichthyosis, 11 cases of Mongolian spots and 2 cases of alopecia cutis congenita were seen.

The papulosquamous diseases seen in this study were lichen planus, psoriasis and pityriasis rosea.



Figure 1. ALOPECIA AREATA



Figure 2. FOLLICULITIS



Figure 3. ALOPECIA CUTIS CONGENITA

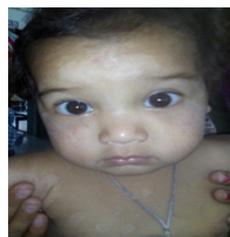


Figure 4. ATOPIC ECZEMA



Figure 5. ICTHhYOSIS



Figure 6. IMPETIGO



Figure 6. LICHEN STRIATUS



Figure 7. Nevus Achromicus



Figure 8. MILIARIA RUBRA



Figure 9. NEVUS ANEMICUS PUSTULOSA



Figure 10. PITYRIASIS VERSICOLOR



Figure 11. ULCERATIVE DIAPER RASH



Figure 12. TRANSIENT CEPHALIC PUSTULOSIS



Figure 13. PITYRIASIS ALBA



Figure 14. PSORIASIS IN GROIN

DISCUSSION

The Pattern of paediatric dermatoses varies in different parts of the world and more so regional variations across the countries also exist. It is very much influenced by climate, external environment, socio economic standards and dietary habits⁽³⁾. This present study enlightens the pattern of paediatric dermatoses from a tertiary care hospital in Chennai.

In our study majority of dermatoses was comprised of Infection and Infestation (59.1%). Many studies from India revealed similar findings. Karthikeyan et al⁽²⁾ also reported infections were the common dermatoses (54.5%) in their study. Negi et al⁽⁷⁾ in their study found that infections and infestations contributed to 50% of their cases in Garhwal region of Uttar Pradesh. Various other authors have reported infections as common problem occurring in the range of 35.6% to 85.2%. This may represent the inadequacies in the primary health care facilities and poor socio economic status.

In our study, scabies was the most commonest disorder followed by bacterial infections. Similar findings were observed by Bangaru et al⁽⁸⁾ where scabies was the most common paediatric dermatoses accounting for 14.08% of all cases. Higher number of scabies in our

study population may reflect the study group which largely comes from low socio economic status and poverty and overcrowding was common among them. Negi et al⁽⁷⁾ and others have also reported higher incidence of scabies in their study.

In our study among bacterial infection, impetigo (16.4%) was the commonest infection. Similar observations were also observed in other studies. Sayal et al⁽³⁾ reported fungal infections were common while viral infection outnumbered bacterial and fungal infection in a study by Wenk and Itin⁽⁹⁾ and Gulet al⁽¹⁰⁾. This variation can be attributed to change in geographical location and personal habits. Among viral infection, Hand foot mouth disease was the most commonest disease followed by molluscum contagiosum and wart but in other studies molluscum contagiosum was the commonest followed by warts^(2,3,11,12). This can be due to poor personal hygiene and playing outdoor. In fungal infection, Tinea corporis (5%) was the most common fungal infection followed by tinea versicolor^(4,2) whereas in other studies tinea capitis were common⁽¹¹⁾.

Insect Bite Allergy (papular urticaria) (18.4%) was the commonest hypersensitivity followed by urticaria similar to other studies^(2,8)

Miliaria comprised a sizeable group of dermatoses in our study is (9.88%) which is higher when compared to other studies by Karthikeyan et al⁽²⁾. This disorder is peculiar to tropical climate.

Incidence of eczema 2.14% was low when compared with western studies where they have reported 18% to 34%. We had only few cases of atopic dermatoses, in contrast studies from developed countries reported higher incidence (3.1 to 28%)⁽¹³⁾. The incidence of eczema primarily depends upon individual predisposition, environmental allergens and genetic constitution.

Being a referral centre we also saw some of the rare dermatoses such as congenital ichthyosis, alopecia areata, aplasia cutis congenita, psoriasis whereas rare dermatoses were not reported in studies by Ghosh et al (14) and Porter (15).

CONCLUSION

This study highlights the pattern of common paediatric dermatoses in our setup (mainly infection and infestation) and environmental associated disorders like insect bite allergy and miliaria. Most of the infection can be controlled by improving personal hygiene and socio economic status of the society. A detailed knowledge about the pattern of paediatric dermatoses in each geographical area helps us in implementing crucial changes in health education, control and prevention strategy in the area involved.

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