

Study of paediatric skin lesions in a tertiary care hospital

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Abstract

Background: Children below 14 years of age are vulnerable to many skin diseases mainly due to malnutrition, poor hygiene, less medical care provision, low socio-economic status, etc. The incidence and the spectrum of paediatric dermatological diseases vary from one part of the world to another depending on various factors. This study was aimed to study skin problems in children below 14 years age. **Material and Methods:** This was a cross-sectional, observational study done with children of age below 14 years attended skin outpatient department (OPD) with skin problems. **Results:** During study period 310 patients were included in the study of which 178 (57.26%) were male and 132 (42.74%) were female. The ratio of male: female was 1.34:1 in our study. Infectious skin lesions were seen in 163 (52.5%) children, while non-infectious skin lesions were seen in 157 (50.6 %) children. **Conclusion:** Infections and infestations are commonly noted in our paediatric population. Application of preventable measures by community, early diagnosis and proper counseling by pediatrician or dermatologist is needed to prevent further morbidity of skin lesions.

Key Words: Children, eczema, infection, infestation

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INTRODUCTION

Skin diseases are very common in developing countries, but these are not often regarded as a significant health problem.¹ Children below 14 years of age are vulnerable to many skin diseases mainly due to malnutrition, poor hygiene, less medical care provision, low socio-economic status, etc. The incidence and the spectrum of paediatric dermatological diseases vary from one part of the world to another depending on various factors.² Infections and infestations are predominant in developing countries whereas non-infectious conditions like eczema are common in developed countries.³ Skin problems in

children below 14 years requires a separate view from adult skin conditions because of differences in clinical presentation, treatment and prognosis. Pediatric skin diseases can be transitory, recurrent or chronic. Studies noted that the infective disorders mainly pyoderma and scabies are major causes for visit to primary healthcare facility in developing countries.⁴ Dermatological problems constitute at least 30% of all outpatient visits to a pediatrician and 30% of all visits to a dermatologist involve children^{5,6} School going children are more vulnerable to cutaneous infections, also from cross transmission of communicable skin diseases among themselves and their families, while chronic dermatoses are associated with significant morbidity and psychological impact. Few cutaneous diseases results from intrinsic genetic abnormalities which have early age onset and are chronic in nature. This study was aimed to study skin problems in children below 14 years age.

MATERIAL AND METHODS

This was a cross-sectional, observational study done at Mahavir institute of medical college and general hospital, Vikarabad, in the department of dermatology, venereology and leprology. Children of below 14 years of

age who attended the skin OPD with skin problems, during the study period between March 2019 to July 2019 were included in the study. Patients and their guardians who were willing to participate and provide follow-up were included in the study. Informed consent was obtained from patients and guardians. Detailed history regarding onset, progression, associated symptoms, and history of similar complaint in the family was taken from patient and guardian. Detailed general physical examination and cutaneous examination was done in all patients. Relevant blood and urine investigations were done. Some investigations such as Woods lamp examination, KOH mount, diascopy, Tzanck smear, bacterial smear and culture, histopathology etc. were done wherever necessary. Diagnosis was made based on clinical examination and relevant laboratory reports. Collected data was analyzed accordingly.

RESULTS and DISCUSSION

Dermatological problems in children mainly depend upon local problems like climate, external environment, dietary habits, socio-economic status, availability of healthcare facilities, literacy, government programmes, etc. though dermatological problems are not taken seriously but they can have serious long term effects on individual children. Developing countries had a high prevalence of infections and infestations, mainly due to low socioeconomic status, favourable tropical weather, neglect and poor hygiene, low level of medical care, negligence to dermatological problems, etc.^{7,8} A total 310 patients were included in the study of which 178 (57.26%) were males and 132 (42.74%) were female. The ratio of male: female was 1.3:1. Distribution of male and female patients in different age group is mentioned in table 1.

Table 1: Distribution of patients in different age group

Age Group(in years)	Male (%)	Female (%)	Total (%)
0-1	23 (7.42)	30 (9.52)	53 (16.94)
1-4	51 (16.45)	37 (11.94)	88 (28.39)
5-9	73 (23.38)	48 (15.65)	121 (39.03)
10-14	31 (10)	17 (5.65)	48 (15.64)
Total	178 (57.26)	132 (42.74)	310 (100)

In our study, 73 (23.38) patients were in the age group of 5-9 years followed by 1-4 years 51 (16.45%) and 10-14 years 31 (10%). Calculated mean age was 6.5 years in our study. When we analysed our data, infections and non-infectious skin lesions shared almost 50% each. Infectious skin lesions were seen in 163 children (52.64 %) (table 2), while non-infectious skin lesions (table 3) were seen in 157 children (49.36%). Community-based studies showed that the prevalence of transmissible diseases is, as high as 84%, while the current study shows that infections and infestations are still the most common

group of skin diseases. Among infectious lesions we noted that the parasitic infestation was most common among them. In a study on the clinical profile of cutaneous infections and infestations in the paediatric age group by Sharma *et al*⁴, parasitic infestations (53.66%) were the most common cutaneous disorder, followed by bacterial (34.66%), fungal (8.42%) and viral infections (3.85%). Skin infestation by parasite was largest group with 62 patients (19.84 %). Various skin infestations such as scabies (81 %), pediculosis (13%), papular urticaria (6 %) were noted in our study. Family has a typical history of frequent sharing of the combs among the family members; poor hygienic conditions and less frequency of bathing were common among patients. Similar findings were noted in other studies^{3,9}. The second most common infectious skin lesions were bacterial infections seen in 48 (15.48%) patients. Various other authors have reported them occurring in the range of 35.6% to 85.2%.^{3,10,11,12} Our study reported less incidence as compared to other studies. Bacterial skin lesions are comparatively easy to diagnose and treat, so parents many times prefer local practitioners, so that might be the cause for the less incidence. In an epidemiological study of skin diseases among school children in north India, incidence of bacterial pyoderma (impetigo, folliculitis and infected bite reactions) was found to be 64.4%¹¹. Fungal infections were noted in 30 children. Tinea capitis was the most prevalent infection among them. Candidal intertrigo and diaper dermatitis were common in children below 5 years age. Diaper dermatitis was common when less frequent change in the diaper cloth following soiling was done. Most of the parents were unaware of importance of keeping buttock area dry was thought to be the main cause. Local remedies or on-counter creams usually aggravate the condition. Viral lesions such as molluscum contagiosum, viral exanthema, herpes simplex, varicella, Measles were noted in small number.

Table 2: Distribution of infectious skin lesions

Conditions	Males (%)	Females (%)	Total (%)
Infestation	35 (11.13%)	27 (8.71%)	62 (19.84%)
Bacterial	30 (9.68%)	18 (5.81%)	48 (15.48%)
Dermatophytes	19 (6.13%)	11 (3.55%)	30 (9.68%)
Viral	12 (1.94%)	11 (3.71%)	23 (5.64%)
Total	96 (28.87%)	67 (21.77%)	163 (50.64%)

Table 3: Distribution of non-infectious skin lesions

Conditions	Males	Females	Total
Eczema	19	15	34
Seborrheic dermatitis	3	4	7
Diaper dermatitis	4	3	7
Atopic eczema	3	2	5
Nummular eczema	7	1	8
Contact dermatitis	4	4	8
Pigmentary disorders	5	5	10
Vitiligo	4	3	7
Mongolian spot	1	2	3
Insect bite	3	1	4
Urticaria	2	2	4
Genodermatosis-	2	1	3
Albinism.	1	1	2
Xeroderma pigmentosa	1	0	1
Ichthyosis	0	1	1
Other	20	8	28
Keloid	4	1	5
Bed sore	2	1	3
Hemangioma	4	0	4
Lichen striatus	0	1	1
Miliaria	5	2	7
Pityriasis rosea	2	1	3
Xerosis	1	1	2
Pityriasis alba	1	1	2

In our study, eczemas of all types was found in 13.5 % of children and similar reports are found regarding proportion of the eczemas in the other Indian studies.¹² Evidence of secondary bacterial infections (13.21%) noted in our study, in cases where initial non-infectious lesions noted in earlier examinations. Comparatively more number of patients with non-infectious lesions was due to being a tertiary care center; skin lesions not cured on routine treatment were referred to us for expert opinion and management. During study period no mortality was noted.

CONCLUSION

Skin diseases in the pediatric population are common at all over places. Infections and infestations are commonly

noted in our paediatric population. Application of preventable measures by community, early diagnosis and proper counseling by paediatrician, general practitioner or dermatologist is needed to prevent further morbidity of skin lesions.

REFERENCES

1. Growing awareness of skin diseases starts flurry of initiatives. Bull of WHO 2005;83(12):881-968.
2. WHO. Discussion papers in Child Health Epidemiology and management of common skin diseases in children in developing countries. Geneva: World Health Organization 2005. WHO/FCH/CAH/05.12.
3. Sardana K, Mahajan S, Sarkar R. Spectrum of skin diseases among Indian children. *Pediatr Dermatol* 2009;26(1):6-13.
4. Sharma RC, Mendiratta V. Clinical profile of cutaneous infections and infestations in the paediatric age group. *Indian J Dermatol* 1999;44(4):174-178.
5. Thappa DM. Common skin problems in children. *Indian J Pediatr* 2002; 69: 701-6.
6. Federman DG, Reid MC, Feldman SR, Greenhoe J, Kirsner RS. The primary care provider and the care of skin disease. *Arch Dermatol* 2001; 137: 25-9.
7. Oyedeji OA, Onayemi O, Oyedeji GA, *et al.* Prevalence and pattern of skin infections and infestations among primary school pupils in Ijesha Land. *Nig J Paed* 2006;33(1):13-17.
8. Amoran OE, Runsewe-Abiodun OO, Mautin AO, *et al.* Determinants of dermatological disorders among school children in Sagamu, Nigeria. *Educ Res* 2011;2(12):1743-1748
9. Ghosh SK, Saha DK, Roy AK. A clinicoaetiological study of dermatoses in pediatric age group. *Indian J Dermatol* 1995; 40: 29-31.
10. Negi KS, Kandpal SD, Prasad D. Pattern of skin diseases in children in Garhwal region of Uttar Pradesh. *Indian Pediatr* 2001; 38: 77-80.
11. Dogra S, Kumar B. Epidemiology of skin diseases in school children: a study from northern India. *Pediatr Dermatol* 2003;20(6):470-473.
12. Thappa DM. Skin diseases ("Dermatology") in India – History and Evolution: Amiya Kumar Mukhopadhyay. *Indian J Dermatol Venereol Leprol* 2011;77:629.

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