

Pattern of pediatric dermatoses at a tertiary care hospital, SIMS, Shivamogga

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Abstract

Introduction: The major health problem in the pediatric age group is skin diseases and is associated with the significant morbidity.

Aim: To study the incidence of dermatoses among the pediatric age group at tertiary health care in Shivamogga.

Materials and Methods: A prospective study was carried out among the children upto 14 years who came to Dermatology outpatient department. The study was carried out between the month of January to March 2018. Diagnosis was made based on appropriated detailed history, clinical features and investigations.

Results: The commonest pediatric dermatoses in our study were the infections and infestations. This was followed by other non-infective dermatoses like insect bite reactions, miliaria, dermatitis and others.

Conclusion: Infections are the dermatoses which exceeded in our study and these are potentially controllable and preventable. Hence health care strategies that target infections represent the key to an efficient child health care program.

Keywords: Children, Dermatoses, Infections.

Introduction

Skin diseases are a major health problem in the pediatric age group and are associated with significant morbidity. 30% constitute the childhood skin diseases among the visit to pediatrician as well as to the dermatologists.^{1,2} The predisposing factors of dermatoses in children are socioeconomic status, climatic exposure, dietary habits and external environment as compared to adults. Hence we undertook this study to determine the pattern of common dermatoses in children as there are few studies on the spectrum of pediatric dermatoses from Shivamogga.

Materials and Methods

A prospective study was conducted in Dermatology outpatient department, District Mc Gann Teaching Hospital, SIMS, Shivamogga during January to March 2018. All children aged from 1 to 14 years with dermatoses were enrolled in the study. Patients were diagnosed by appropriate history, clinical examination and investigations. Results were tabulated based on the etiology and were analyzed.

Results

During the study period, total number of patients seen in dermatology outpatient department was 7211. Out of these, 972 were of paediatric age group. There were 600 boys and 372 girls, with male to female ratio of 1.6: 1. The age and sex distribution is given in table 1. Most common type of pediatric dermatoses found in our study were infections and infestations constituting 56.4%, followed by insect bite reaction (10.4%) as shown in the Table 2. The pattern of various infections and infestations are depicted in the Table 3. Impetigo

(20.5%) was the most common bacterial infection and scabies (13.6%) was the commonest infestation (Fig. 2). Tinea capitis and corporis (8.1%) and molluscum contagiosum (7.1%) were the commonest fungal and viral infections respectively.



Fig. 1: Impetigo



Fig. 2: Tinea



Fig. 3: Urticaria



Fig. 4: Wart

Discussion

Atopic dermatitis is the most common dermatoses in developed countries but in developing countries it is infections that predominate. 56.4% of dermatoses constituted infections in our study. Karthikeyan K et al showed that infections and infestations (54.5%) were the most common pediatric dermatoses (3). Most of the studies reported that the incidence of infections and infestations to be high ranging from 63.5%-85.2%.^{4,7} These can be attributed to poor hygienic, overcrowding and low socioeconomic status.

Among infections, first comes pyoderma (40.9%) and then viral (25.6%) and fungal infections (13.1%). In a study conducted by Karthikeyan K et al,³ pyoderma was the most common infectious disorder in the children similar to our study. Out of bacterial infections, impetigo (20.5%) was the common entity followed by secondary pyoderma (9.4%) which is not in accordance with study by Nageswaramma et al in which secondary pyoderma was most common compared to impetigo.

Among viral infections, molluscum contagiosum (7.1%) was most common, followed by viral warts (5.4%); similar to findings observed by the study of Sharma and Mendiratta.⁹ While study by Patel et al (10), the higher incidence of warts in children were found high compared to molluscum contagiosum.

In our study 13.1% constituted the fungal infections. Tinea capitis (4.49%) was the most common fungal infection similar with finding of other studies.^{11,12}

In infestations, scabies accounted for 13.6% followed by pediculosis capitis (6.5%). The incidence of scabies has varied in various studies from 5.1%-22.4%.^{4-7,13} Higher percentage of scabies can be attributed to poor hygiene, overcrowding and low socio-economic strata. The incidence of pediculosis capitis was low (6.5%) compared to other studies in India.^{14,15} The decreased incidence in our study could be due to increased awareness on hair care and hygiene.

Following infections and infestations, the next large group is papular urticaria (insect bite reaction). The incidence is similar to a study conducted in Andhra Pradesh.⁸

Miliaria cases were high in the study might be due to seasonal variation, more prevalent in summer and rainy seasons which is in accordance with a study by Banerjee et al.¹⁶

Dermatitis and eczema constituted 6.4% whereas in developed countries studies showed higher incidence of eczema from 18% to 34%.¹⁷⁻²¹ Lower incidence of atopic dermatitis and eczema in our study may be related to climate, dietary habits, genetics, or other unknown factors.

Psoriasis accounted for 1.2% in this study which is in accordance with Rao et al,²² Jawade et al²³ and Sardana K²⁴ studies. Incidence of pigmentary disorders in our study was found to be 2.7% similar to studies by Thappa (3.16%)¹ and Nageswaramma (2.81%),⁸ while higher incidence was found in Patel et al. (11.48%) study.²⁵ Nutritional disorders were found in about 2.1% of children, which was in accordance with a study by Sugat Jawade et al.²³ However, a study by Negi et al,⁴ incidence is very high compared to our study. Negi et al⁴ study was done in a rural area while our study center was in an urban area. Incidence of hair and nail disorders was 1.5%, finding similar to the study by Sugat Jawade et al.²³ Urticaria affects about 3% of study population which correlates with other study.¹

Table 1: Age and sex distribution

Age in yrs	Male	Female	Total
1-4	9 (9.4%)	60 (6.1%)	152 (15.6%)
5-8	188 (19.8%)	96 (9.8%)	284 (29.2%)
9-12	320 (32.9%)	216 (22.2%)	536 (55.1%)
Total	600 (61.7%)	372 (38.2%)	972 (100%)

Table 2: Pattern of pediatric dermatoses

Dermatoses	No. of patients	Percentage
Infections and infestations	549	56.4
Dermatitis and eczema	63	6.4
Pigmentary disorders	27	2.7
Insect bite reaction	102	10.4
Disorders of hair and nails	15	1.5
Miliaria	69	7
Nutritional deficiency disorder	21	2.1
Urticaria	30	3
Genetic disorders	6	.6
Acne	30	3
Collagen vascular disorders	-	-
Haemangioma	6	.6
Drug eruptions	6	.6
Psoriasis	12	1.2
Others	36	3.7
Total	972	100

Table 3: Pattern of infections and infestations

Dermatoses	No. of cases	Percentage
Pyoderma	225	40.9
Secondary pyoderma	52	9.4
Impetigo	113	20.5
Bullous impetigo	60	10.9
Infestations	111	20.2
Scabies	75	13.6
Pediculosis	36	6.5
Fungal infections	72	13.1
Tinea corporis and capitis	45	8.1
Tinea versicolor	18	3.2
Candidiasis	09	1.6
Viral infections	141	25.6
Molluscum contagiosum	39	7.1
Warts	30	5.4
Herpes simplex	9	1.6
Varicella zoster	33	6
Viral exanthems	30	5.4

Conclusion

Infections outnumbered other pediatric dermatoses in our study. These are potentially controllable and preventable easily by public awareness, proper sanitation and providing health care facilities. Hence we could like to highlight the fact that health care strategies that target infections represent the key to an efficient child health care program.

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