ORIGINAL ARTICLE

A STUDY ON PREVALENCE OF DIFFERENT TYPES OF DERMATOSIS IN PEDIATRIC AGE GROUP IN SEMIURBAN POPULATION OF PUNE CITY

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ABSTRACT

Introduction: Dermatological problems constitute at least 30% of all outpatient visits to pediatricians and 30% of all visits to a dermatologist involve children. The present study was undertaken to determine the pattern of common dermatosis in children between 1-12 years in a semi-urban population in industrial areas of Pimpri-Chinchwad suburbs of Pune.

Methodology: This was the cross-sectional study conducted on 1-12 years children in the Department of Dermatology. We have taken detailed history and clinical findings were noted and recorded in the predesigned proforma.

Results: Most common group of dermatosis seen in this study was infectious diseases including bacterial 31 (25.80%), parasitic infestations 32 (26.4%), eczematous conditions 12 (10%) and viral infections 8 (6.6%). In 21 (17.5%) and primary bacterial infection occurred in 10 (8.32%) consisting of impetigo in 8 (6.66%) cases followed bullous impetigo in 2 (1.66) cases. Vitiligo and urticaria seen in 4 (3.33%) cases, Molluscum contagiosum in 5 (4.16%) cases, Sabies in 18 (15%) cases followed by pediculosis in 14 (11.66%) cases.

Conclusion: We conclude that Infections and infestations were common while secondary bacterial infections were more common that the primary ones. Scabies was seen more commonly than pediculosis and Viral and fungal infections occurred in a small number of cases. Eczema dermatitis group was the second in prevalence among the various groups of dermatoses.

Keywords: dermatosis, pediatric age, infection, Semiurban population

INTRODUCTION

Dermatological problems constitute at least 30% of all outpatient visits to Pediatricians and 30% of all visits to a dermatologist involve children.[1] The prevalence of skin disease amongst children in various parts of India has ranged from 8.7% to 35% in school- based surveys. School from rural areas showed relatively higher prevalence of skin diseases. All the children in a school survey of a high altitude tribal area of Himachal Pradesh were found to have one or more type of skin diseases.[2]

A Significant proportion of the skin conditions occurring in children can be physiological such as sebaceous hyperplasia, milia, Mongolian spot, cutis marmorata, harlequin colour changes, erythema toxicum neonatorum, pigmentary changes, hemangioma or pathological such as diaper dermatitis, acrodermatitis enteropathica, phrynoderma, impetigo, staphylococcal scalded skim syndrome, ecthyma gangrenosum, neonatal herpes simplex, congenital varicella syndrome, molluscum contagiosum, human papilloma virus infection, pediculosis, scabies, urticaria, sclerema neonatorum, lichen planus, vitiligo, alopecia areata, atopic dermatitis, pityriasis alba, pityriasis rosea, keloid and hypertrophic scar etc. A prevalence of 68.8% has been reported for these physiological changes, while pathological changes are seen 41.2% of cases.[3] Some of the pathological conditions can be treated and some others prevented by maintaining hygiene and care. However some are difficult to treat. The present study was undertaken to determine the pattern of common dermatosis in children between 1-12 years in a semi-urban population in industrial areas of Pimpri-Chinchwad suburbs of Pune.

METHODOLOGY

The present study was conducted in the Department of Dermatology and Department of Pediatrics of Dr.D.Y.Patil Medical College Hospital for period of

2 years from August 2009 to July 2011. Pediatric patients of age between 1 to 12 years attending outdoor and indoor department in Dr.D.Y.Patil Medical College Hospital's were selected. Those cases having age between 1-12 years, willing to provide detailed history and willing to conduct necessary investigations if required are included in the study. A total of 120 patients were included. A predesigned structure questionnaire was prepared which included the information regarding gender, ecematous condition, bacterial infection, pigmentary disorder, urticaria, viral conditions, dermatophytic conditions, parasitic infestations and other dermatological conditions. Detailed history and clinical findings were noted and recorded in the designed proforma. Data analysis was carried out by using Microsoft office Excel. The study was approved by the Institutional Ethics committee. The participants were enrolled in the study after obtaining written informed assent from their parents.

RESULTS

As tabulated and depicted below (table 1), males 72 constituted 60% and the females constituted 40% of total number of patients.

Table 1: Age and Gender wise distribution of cases

Age Group (in years)	Male (%)	Female (%)	Total (%)
1-4	26 (36.1)	17 (35.4)	43 (35.8)
5-8	24 (33.3)	12 (25.0)	36 (30.0)
9-12	22 (30.6)	19 (39.6)	41 (34.2)
Total	72 (100)	48 (100)	120 (100)

Table 2: Distribution of Pediatric Dermatosis

Conditions	Males	Females	Total
Infestation	18 (25.0)	14 (29.2)	32 (26.7)
Bacterial	16 (22.2)	15 (31.3)	31 (25.8)
Eczema	7 (9.7)	5 (10.4)	12 (10.0)
Pigmentary disorders	4 (5.6)	4 (8.3)	8 (6.7)
Viral	7 (9.7)	1 (2.1)	8 (6.7)
Insect bite	3 (4.2)	4 (8.3)	7 (5.8)
Dermatophytes	4 (5.6)	2 (4.2)	6 (5.0)
Urticaria	3 (4.2)	1 (2.1)	4 (3.3)
Other	10 (13.9)	2 (4.2)	12 (10.0)

Figures in parathesis indicate percentage

Table 3: Proportion of Various Eczematous Conditions

Eczema condition	Male	Female	Total
Seborrheic dermatitis	1	2	3
Diaper dermatitis	1	2	3
Atopic eczema	2	0	2
Nummular eczema	1	1	2
Contact dermatitis	2	0	2

Table 4: Distribution of bacterial and viral infections

Pathogens	Male	Female	Total
Bacterial			
Secondary infected pyoderma	10	11	21
Impetigo	6	2	8
Bullous impetigo	0	2	2
Viral			
Molluscumcontagiosum	4	1	5
Viral exanthema	2	0	2
Verruca vulgaris	1	0	1
Parasitic infestation			
Scabies	12	6	18
Pediculosis	6	8	14

Table 5: Distribution of pigmentary disorders

Disorders	Male	Female	Total
Pigmentary disorders			
Vitiligo	2	2	4
PIH	1	1	2
Mongolian spot	1	1	2
Urticaria			
Urticaria	3	1	4
Dermatophytes			
T.capitis	0	2	2
T.corporis	2	0	2
T.cruris	2	0	2

Table 6: Distribution of other dermatological conditions

Other conditions	Male	Female	Total
Keloid	1	0	1
Bed sore	1	0	1
Hemangioma	2	0	2
Lichen striatus	1	0	1
Miliaria	1	0	1
Pityriasis rosea	1	1	2
Xerosis	2	1	3
Pityriasis alba	1	0	1

As depicted in (table 2) the most common group of dermatosis seen in this study was infectious diseases including bacterial 31 (25.8), parasitic infestations 32 (26.7), eczematous conditions 12 (10), viral infections 8 (6.6) and other conditions.

Diaper dermatitis and seborrheic dermatitis were commonest type of eczemas, each occurring in 3 (2.5), atopic eczema, nummular eczema and contact dermatitis each were seen in 2 (1.6) patients as tabulated (table 3).

Commonest bacterial infections found were secondary infected lesion of pyoderma. In 21 (17.5) and primary bacterial infection occurred in 10 (8.3) consisting of impetigo in 8 (6.7) cases followed bullous impetigo in 2 (1.7) cases as tabulated table 4.

Molluscum contagiosum is the most common viral infection occurring in 5 (4.2%) of our cases as shown

in table 4. Sabies, the commonest parasitic infection in our study was seen in 18 (15) cases followed by pediculosis in 14 (11.7) cases, as shown in table 4.

Vitiligo seen in 4 (3.4) cases was the commonest disorder found in this group. Prevalence of urticaria was seen in 4 (3.4) cases. Among other dermatosis, xerosis was seen in 3 (2.5) cases. Hemangioma and pytriasis rosea occurred in 2 (1.6) cases each. One case (0.8) each of keloid, malaria, pityriasis alba and lichen striatus were seen.

DISCUSSION

In our study, eczemas of all types was found in 10 % patients, approximately similar was the proportion of the eczemas in the two other Indian studies while the study by Tamer et al[4] from turkey showed the highest prevalence of 18.9 %. The incidence of atopic eczema was low in our study (1.60%) and much lower (0.01%) in the study by Thappa et al[5] . However, it had a high incidence of 11.80% in the Turkish study by Tamer et al[4]. Incidence of contact dermatitis is much lower (1.60%) in our studies than that of 11.30% in the Turkish study by Tamer et al[4]. Incidence of seborrheic dermatitis is also lower (2.5%) in the present study as compared to that (4.30%) in the Turkish[4] study. Incidence of a diaper dermatitis (2.50%) and nummular eczema (1.60%), however, is much higher in the present study than that of 0.90% of diaper dermatitis and 0.40% of nummular eczema in the Turkish[4] study. Incidence of secondary bacterial infections (17.50%) in our study approximates that seen in the two other Indian studies by Thappa et al[5] (17.90%) and Negi et al[6] (15.60%).

Incidence of impetigo in our study (6.66%) was higher than those seen in the other two studies by Thappa et al[5] (5.80%) and Tamer et al[4] (4.10%). Bullous impetigo was found in 1.66% of our cases, it incidence being slightly higher in the study of Thappa et al[5] who found it in 1.9% of their cases. Our study showed a higher prevalence of 3.33% of vitiligo as compared to that of 2.9% of in the study by Negi et al[6] and 1.40% by Tamer et al[4].

Comparison of various viral infection revealed total incidence (6.59%) in our study to be higher than that (3.60% in the other indian study by Thappa et al[5]. However the highest (10.90%) incidence was that in the Turkish study by Tamer et al[4]. Out of the three viral conditions, molluscum condition was the commonest among the our study as well as by Thappa et al[5]. Comparison of various dermatophyte condition reveled total incidence (4.80%) slightly higher than (3.10%) in other indian study by Thappa et al[5], and much higher than that (1.30%) Turkish study by Tamer et al[4].

Our Study found prevalence of xerosis of 2.5%. Study done by Tamer et al[4] showed incidence of xerosis to be 2.6%. Prevalence of miliaria was found to be 0.83%. Tamer et al[4] showed incidence of miliaria in their study to be 0.8%. Incidence of keloid was found to be 0.83% while study done by Tamer et al[4] showed incidence of keloid to be 0.4%. In our study Pityriasis Rosea was found to be 1.6% prevalent. Study done by Tamer et al[4] showed incidence of pityriasis rosea to be 1.2%. Incidence of hemangioma and pityriasis alba were found to be 1.6% and 0.83% respectively. While in the study by Tamer et al[4] incidence of hemangioma and pityriasis alba to be 0.3% & 1.6% respectively.

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