Pediatric Dermatoses Encountered in the Outpatient Clinic Department of Tertiary Care Center

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Abstract: Background: Skin diseases in pediatric populations are very common health problems in developing countries. The evaluation for skin disorders forms an important component of primary health care practice for all including children. Pediatric dermatoses require a separate view from adult dermatoses as there are important differences in clinical presentation, treatment and prognosis. Status of health, hygiene and personal cleanliness of a society can be judged from the prevalence of certain skin diseases in the children of the community. Aim: Our aim was to evaluate the occurrence and spectrum of skin disorders in Pediatric patients attending the outpatient clinic at tertiary care center and for a dermatological opinion. Material and Methods: A prospective study was undertaken to determine the pattern of skin diseases during the period of May 2013 to April 2014 at the Dermatology OPD of tertiary care hospital. 1994 children aged up to 14 years were enrolled in the study. A detailed general, cutaneous and systemic examinations followed by investigations were carried out. The findings were recorded in proforma for analysis and interpretation of data. Results: Out of 1994 patients skin diseases were found more in males (53.56%) than in females (46.44%). The highest number of patients were in the age group of 1-5 year (31.84%). Etiological analysis revealed that majority of dermatoses belonged to infection and infestation (797; 39.96%) followed by eczematous group (357; 17.90%). Of the infection and infestation bacterial were most common entity followed by parasitic, fungal and viral. Conclusion: In our study preschool children are frequently affected with skin diseases than school going children. More common skin diseases are infections followed by eczema. Our data emphasize the need for improving sanitation, nutrition, personal hygiene of children, strengthening of community dermatology and training of health worker in the diagnosis and management of skin disease.

Keywords: Pediatric, Dermatoses, Infections

1. Introduction

The incidence of pediatric dermatological problems varies from one part of the world to another.³ Skin diseases, though very common in many developing countries, are not often regarded as a significant health problem even when serious diseases may be heralded by skin changes.⁴ Different investigators from various countries showed that the pattern of dermatological conditions in children differ from the pattern of adult dermatological conditions. Among skin diseases, pyoderma and fungal infections are more common in developing countries, while eczemas are more common in developed countries. Some investigators from India found 47% of skin diseases are due to infections and infestations and about 27% of skin diseases are due to eczema.⁵ On the other hand some investigators showed that children in Singapore and Thailand suffer from eczema more than bacterial and fungal infections.⁶ This can be attributed to different climatic, cultural and socio-economic condition. The prevalence of pediatric dermatoses in school based surveys in India has ranged from 8.7% to 35%.⁷ Pediatric dermatoses require a separate view from adult dermatoses as there are important differences in clinical presentation, treatment and prognosis.⁸ The pattern of skin disease is a consequence of poverty, malnutrition, overcrowding, poor hygiene, illiteracy, and social backwardness in many parts of India.⁹ The evaluation for skin disorders is an important component of primary health care practice for all, including children.¹⁰ Status of health, hygiene and personal cleanliness of a society can be judged from the prevalence of certain skin diseases in the children of the community.¹¹

Wide range of primary skin disorders are seen during childhood and skin is often a marker of underlying systemic diseases and hereditary syndromes.¹² Dermatological problems account for about 30% of primary and secondary reasons for pediatric clinic visits and 30% of all visits to dermatologists involve patients of pediatric age group.¹³ This study was carried out to share our experience about various dermatoses prevalent among pediatric patient attending skin OPD at Tertiary Care center.

2. Material and Methods

A prospective study was undertaken to determine the pattern of skin diseases during the period of May 2013 to April 2014 at the Dermatology OPD of NHL medical college and Smt. SCL hospital a tertiary care hospital in Ahmedabad. 1994 children aged up to 14 years were enrolled in the study. A detailed general, cutaneous and systemic examinations followed by investigations were carried out. The findings were recorded in proforma for analysis and interpretation of data.

3. Results

Incidence of pediatric dermatoses in our OPD is 7.35%. Total of 1994 patients were examined. Out of which 1068 (53.56%) were males and 926 (31.84%) were females. 507 (25.43%) of <1 year, 635 (31.84%) patients of 1-5 year, 414 (20.76%) patients of 6-10 year and 438 (21.97%) of 11-14 year age group. The pattern age distribution depicted in table no.1

Table 1: Pattern of age distribution

<table>
<thead>
<tr>
<th>Age group</th>
<th>Number of cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>507</td>
<td>25.43</td>
</tr>
<tr>
<td>1-5 Year</td>
<td>635</td>
<td>31.84</td>
</tr>
<tr>
<td>6-10 Year</td>
<td>414</td>
<td>20.76</td>
</tr>
<tr>
<td>11-14 Year</td>
<td>438</td>
<td>21.97</td>
</tr>
<tr>
<td>Total</td>
<td>1994</td>
<td>100</td>
</tr>
</tbody>
</table>

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The majority of dermatoses belonged to infections followed by eczematous group. Distribution of various dermatoses is depicted in table no.2

According to Table 2 infections being the most common dermatoses in pediatric age group i.e.797(39.98%). Dermatitis and eczema being second most common dermatoses i.e.357(17.90%) 

According to table 3, 312(39.15%) patients of bacterial infection, 272(30.53%) patients of parasitic infection, 173(21.70%) patients of fungal infection and 183(22.96%) patients of parasitic infection were noted during Nov-Jan & Parasitic infection were maximum during Aug-Oct.

According to table 6 most common fungal infection was candidiasis(50.87%) 

Accoding to table 8, there was peak of bacterial infection during May-July, Fungal infections were also maximum during May-July, While maximum patients with viral infection were noted during Nov-Jan & Parasitic infection were maximum during Aug-Oct.

4. Discussion

The most common dermatoses in our study were infections and infestations, observed in 39.98% of the study population. Among infections, bacterial infection were the most common in our study followed by fungal and viral infections. The incidence of bacterial infections in our study was 312 (39.15%) similar to other studies. Saurabh et al. found bacterial infection being 31.9%.

Lack of health awareness, poor personal hygiene, poverty and overcrowding were important factors that contributed to the higher prevalence of bacterial infection.

Most of the bacterial infections were found in the children (1-5 year) age group. We found that pyoderma (53.85%) was the most common bacterial infection followed by impetigo (22.12%).

According to table 5 Pyoderma (53.85%) was the most common bacterial infection followed by impetigo (22.12%).
commonest, followed by viral fever with rash, chickenpox, herpes zoster and herpes simplex. We observed that viral warts were more common in 11-14 year age group. Adolescents are vulnerable for viral infections due to enhanced outdoor activity and increased exposure.

The geographic area and season may influence the distribution of dermatoses. In our study the increased incidence of bacterial infection was seen in May to July. While increased incidence of viral infection was seen in November to January. Increased incidence of scabies was seen during August to October.

The second most common type of dermatoses in our study was eczema/Dermatitis. Among them seborrheic dermatitis (30.53%) was at the top of the list followed by atopic dermatitis (21.57%). seborrheic dermatitis was prevalent in 11-14 year age group. Most common dermatitis in 1-5 year age group was atopic dermatitis. Thakare et al. also found atopic dermatitis being most common in 1-5 year age group.

There were 304 patients of acne. Out of which 5 patients belong to <1 year age group(neonatal acne).299 patients were between 11-14 year age group due to direct stimulating effects of androgens on sebaceous gland.

There were 52 (2.60%) patients of pigmented disorder. Out of which there were 2 patients of Becker’s naevus in 11-14 year age group. Other patients were of vitiligo and Melanocytic naevus.

There were 32 patients of keratinisation disorder. Most common keratinisation disorder was follicular Keratosis(15) followed by palmoplantar Keratoderma(5). There were 4 patients of Ichthyosis vulgaris; 4 patient of Psoriasis, 3 patient of acanthosis nigricans and 1 patient of Ichthosis Hysterix.

There were 3 patients of drug reaction, out of which 2 patients were of Stevens Johnson syndrome and 1 patient was of drug induced urticaria.

Prevalence of pediatric dermatoses shows different pattern in different countries. Researcher from India in different studies showed that bacterial infections are more than that of eczema. In another study, investigators from Egypt reported that parasitic skin infestations was more than that of eczema followed by pityriasis alba and seborrheic dermatitis. Some researchers in Iraq found the following pattern of skin infections, eczema, pigmented disorder, papulosquamousdisease, drug-induced and nutritional deficiency in children under 12 yr age group. While Inflammatory and allergic disorder were most commonly encountered in study carried out in Switzerland.

5. Conclusion

From this study it can be concluded that more common dermatoses in pediatric age group were infections followed by Dermatitis. Skin diseases are associated with significant morbidity and due to different clinical presentation from adult dermatoses. Pediatric dermatoses require separate view in diagnosis and treatment. The incidence of skin infection can be brought down by increasing awareness regarding sanitation and personal hygiene in population and also by improving sanitation, nutrition and personal hygiene of children. The WHO has advocated for strengthening of community dermatology for developing countries while others have called for training of health worker in the diagnosis and management of skin disease is quite apt and should be adopted by all nations.

References

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