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Clinical Study of Pediatric Dermatoses

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ABSTRACT

Pediatric dermatoses encompass a wide range of skin conditions affecting infants, children and adolescents. Understanding the prevalence, patterns and management of these dermatoses is crucial for effective clinical practice and patient care. This study aims to provide a comprehensive analysis of pediatric dermatoses in a diverse pediatric population. Patients in the age group of 5–15 years with skin diseases attending dermatology outpatient department were enrolled in this study. We conducted a retrospective analysis of clinical data from a large pediatric dermatology clinic over a 5-year period. Data were collected from patient records, including age, gender, clinical presentation, diagnosis and treatment outcomes. A total of 250 pediatric patients were included in the study. The most common pattern of dermatoses was infections and infestations constituting 61.2% (153 cases). The prevalence of specific dermatoses varied by age group, with atopic dermatitis being most prevalent in children, while acne was more common in adolescents. Among the infections and infestations, fungal infections were most common (28%), followed by bacterial infections (16%), parasitic infestations (12.2%), and viral infections (4.8%). This study provides valuable insights into the prevalence and patterns of pediatric dermatoses in a diverse population. The findings emphasize the importance of early diagnosis and appropriate management, taking into account the age-specific nature of these conditions. In order to support future clinical research, this study offers a preliminary baseline of data. Analysing how paediatric dermatoses are trending may also be helpful.

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Key Words
Pediatric dermatoses, prevalence, fungal infections, bacterial infections, viral infections, parasitic infections

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INTRODUCTION

The broad range of skin conditions known as paediatric dermatoses that impact children and teenagers can be extremely stressful for both the young patients and their families[1]. These dermatological problems include psoriasis and hereditary skin illnesses, which are less common but no less significant than typical juvenile skin maladies such atopic dermatitis and contact dermatitis[2]. Paediatric dermatoses can cause a child's self-esteem and quality of life to suffer long-term consequences in addition to physical discomfort and misery.

Healthcare professionals must have a thorough understanding of the epidemiology, clinical presentation and management of paediatric dermatoses since prompt diagnosis and treatment are critical for symptom relief and averting consequences. Furthermore, ongoing research is essential to deepen our understanding of these disorders and improve the care we give our youngest patients given how quickly the area of paediatric dermatology is developing and the advances made in treatment modalities.

Age, gender, geography, genetic predisposition and other factors can all have a significant impact on the prevalence and characteristics of paediatric dermatoses[3-6]. For instance, atopic dermatitis is typically first noticed in infancy, but acne typically peaks in puberty. A thorough clinical investigation is important because it can provide light on the dynamics of these disorders by providing information on their prevalence, clinical course and demography.

By carefully examining a wide range of paediatric patients, this study aims to fill in the knowledge gaps in the field of paediatric dermatology. We seek to ascertain the prevalence of distinct dermatoses, investigate presenting patterns and assess the effectiveness of alternative therapeutic approaches by examining a sizable dataset of paediatric patients over an extended period of time[7,8]. In addition to adding to the body of information regarding paediatric dermatoses, the results of this study will help doctors make well-informed decisions when diagnosing and treating these disorders, ultimately resulting in better care for our paediatric patients.

MATERIALS AND METHODS

This hospital-based descriptive study was conducted in the department of dermatology at a tertiary care center.

Inclusion Criteria:

- School going children in the 5-15 years age group with dermatological disorders attending the dermatology outpatient department were enrolled for the study.

Exclusion criteria:

- Children <5 years and more than 15 years of age were excluded from the study.
- Patients with more than one dermatological condition were excluded from the study.

A pre-made proforma was used for every case. After obtaining the informed written agreement of the parents or guardians, the genesis, progression and duration of the skin lesions were noted, together with past medical history, family history, related dermatoses, systemic symptoms and treatment history. Patients were divided into two groups: those between the ages of five and ten and those between the ages of ten and fifteen. The dermatological problem was diagnosed based on the complete medical history, clinical features and physical examination, which included skin inspection.

RESULTS AND DISCUSSIONS

A total of 250 children were enrolled in the study (Table 1). Total boys were 138 (55.2%) while girls were 112 (44.8%).

The children considered for the study fell into two age groups, 5-10 years and 10-15 years. About three-fifth of the children (58.8%) were of the age group 10-15 years and the rest of the children (41.2%) were of the age group 5-10 years (Table 2).

Of the 250 children present in the study, 61.2% demonstrated the prevalence of Dermatoses while 38.8% of children didn't show any prevalence of Dermatoses (Table 3).

About 153 (61.2%) of the 250 children from the study, demonstrated prevalence of Dermatoses. Of these, most of the children (28%) had Fungal infection, while Bacterial infection was found in 40 (16%) children. 31 (12.2%) children had a Parasitic infection and only 12 (4.8%) children showed Viral skin infection (Table 4).

Table 3: Prevalence of Dermatoses

Prevalence	No. of Children (%)
Dermatoses	153 (61.2%)
No Dermatoses	97 (38.8%)
Total	250 (100%)

Table 2: Age Group

Age Group	No. of Children (%)
5-10 years	103 (41.2%)
10-15 years	147 (58.8%)
Total	250 (100%)

Table 1: Sex

Sex	No. of Children (%)
Male	138 (55.2%)
Female	112 (44.8%)
Total	250 (100%)

Table 4: Type of Skin Infection

Type of Skin Infection	No. of Children (%)
Fungal	70 (28.0%)
Bacterial	40 (16.0%)
Parasitic	31 (12.2%)
Viral	12 (4.8%)

Of the 250 children in the study, who were between the ages of 5 and 15, the majority, or 58.8%, were in the >10 years age group (147 children), followed by the less than 10 years age group (41.2%), which had 103 children. There were 112 female children (44.8%) and 138 male children (55.2%) total. These results were in line with earlier research by Jose *et al*.[9] and Nagarajan *et al*.[10], where the proportion of men was higher than that of women. Infections and infestations accounted for 61.2% (153 instances) of the dermatoses in the current investigation. Similar investigations by Gupta *et al*.[11], Reddy *et al*.[12], Kiprono *et al*.[13] and Nagarajan *et al*.[10] were in line with this.

Fungal infections were the most often seen type of infection (28%), among the 153 (61.2%) children with infections and infestations in the current investigation. Infections caused by bacteria, parasites and viruses came next, accounting for 16, 12.2 and 4.8% of cases, respectively. Other research by Baskaran *et al*.[14], Sangameshwara and Venkatesh[15], Poudyal *et al*.[16], Reddy and Narasimha Rao[17], Gupta *et al*.[11] and Kiprono *et al*.[13] produced results that were similar to these. The most frequent infection in each of these trials was a fungal infection.One possible explanation for the comparable elevated prevalence of fungal infection in children could be the higher prevalence observed in the elderly. In terms of prevalence, bacterial infections accounted for 16% of infectious illnesses; these findings were consistent with those of previous studies conducted by Patel *et al*.[18], Thappa[19] and Sharma *et al*.[20].

The study indicates that low hygiene practises, overcrowding, malnourishment and child ignorance are associated with the highest rates of illnesses and transmission. Therefore, by highlighting the importance of improved food, personal hygiene and sanitation as well as by giving kids and their parents effective health education, these dermatoses can be prevented. Furthermore, holding recurring camps in schools could help with the early diagnosis and treatment of skin disorders, hence slowing the development of infectious skin diseases.

CONCLUSION

Infections and infestation diseases were more common in youngsters, the study found. By increasing public knowledge, practising proper cleanliness and giving access to healthcare, these illnesses can be easily avoided. Revisions to health education and disease prevention strategies will be made easier with a better grasp of the distribution pattern of dermatoses in school-age children. To find out more about the prevalence and clinical pattern of juvenile dermatoses, a thorough, prospective, multicentric study is also needed.

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