

## ORIGINAL RESEARCH

# CLINICAL STUDY ON PATTERN OF DERMATOSES IN INFANTS

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### ABSTRACT:

**Background:** Pediatric dermatoses are disorder in children comprising the skin disease during their infant ages. **Objectives:** To assess the disease pattern and prevalence of various skin disorders in the infant age group at tertiary hospital. **Material and Methods:** Infants with skin dermatoses of age group of 1-5 years attending the outpatient were enrolled in the study. A detailed history was taken in the report form of all the enrolled patients. The clinical examination and laboratory reports were done to confirm the diagnosis of the patients. **Results:** In the study the total number of 250 patients were included. The most seen skin disease pattern is infections and infestations infestation (42%), Eczema (14%), Papulosquamous disorder (6%), pigmentary disorder, hypersensitivity disorder, keratinization disorder, nutritional disorder, scabies, urticaria, other types of infection were seen. **Conclusion:** The detailed knowledge in the infants about the pattern of dermatoses will help in implementing essential changes in health education and disease control strategies in the concerned area.

**Keywords:** dermatoses, pediatric patients, skin infection

### INTRODUCTION

Paediatric dermatoses are a distinct group of diseases that include skin problems that occur during childhood and adolescence. Pediatric skin disease requires a different approach than adult skin disease. Because children are not simply "young adults", the clinical manifestations, treatment, and prognosis of various skin diseases vary greatly.[1]

A child cannot simply be considered a 'small adult'. Depending on body size, some disorders develop in childhood, while others are rare at this time. Due to the delicate nature of the skin of babies and children, who are exposed to constant trauma, most childhood skin conditions are caused by physical causes, infections and allergies. Furthermore, disease patterns vary among specific populations due to various environmental factors. first time. [2]

The incidence of various skin diseases varies with age, race, geographic location, climate, nutrition, hygiene, socioeconomic conditions, and genetics. In developing countries like India, poor rural health facilities, poor sanitation, excessive pollution and overcrowding all contribute to increased incidence of infectious diseases.[3,4]

Skin problems account for at least 30% of all outpatient visits to pediatricians, and dermatologists see a similar number of children.[5]

This study was conducted to evaluate the clinical patterns and prevalence of various skin diseases in children (aged 1–5 years) from our tertiary care hospital.

**MATERIAL AND METHODS:**

The hospital-based study in the paediatrician department at a tertiary care center over a duration of 1 year. Ethical permission was obtained from the Institutional Ethics Committee.

**Inclusion Criteria:** children at an age of 1 to 5 years groups with the dermatological disorder attending in the paediatrician department were taken up in the study.

**Exclusion Criteria:** Children more than age of 5 years and less than 1 year of age were excluded from the study.

Children consent were taken by the parents or guardians in the predesigned report form. The detailed history was taken in that onset of disease, progression, duration of skin lesions, past history, family history, associated dermatoses, its systemic manifestations, and treatment history was noted. The clinical examination reports and the specific laboratory tests were also noted such as scraping of lesion for potassium hydroxide wet mount, gram staining, sensitivity test, pus culture were noted. The blood investigation reports were also taken to confirm any cases.

The data were recorded and analysed by statistical analysis using the SPSS 23.0.

**RESULTS:**

A total of 250 patients were enrolled in the study of an age group of 1-5 years and evaluated for skin disease in this study. The three common dermatoses were observed such as fungal infection and infestation (42%), Eczema (14%), Papulosquamous disorder (6%), pigmentary disorder, hypersensitivity disorder, keratinization disorder, nutritional disorder, scabies, urticaria, other types of infection were noted as shown in Table 1.

**Table 1: Distribution of Dermatoses in Infants**

Sr.No.	Pattern of Dermatoses in Infants	Frequency n(%)
1.	Fungal infection and infestation	105 (42%)
2.	Eczema	35(14%)
3.	Papulosquamous disorder	15(6%)
4.	Pigmentary disorder	12 (4.8%)
5.	Hypersensitivity disorder	11 (4.4%)
6.	Keratinization disorder	10 (4%)
7.	Nutritional disorder	10(4%)
8.	Scabies	8 (3.2%)
9.	Urticaria	7 (2.8%)
10.	Other	37 (14.8%)
Total		250

The male infants were 130 (52%) while female infants were 120(48%) the ratio of male and female was 1.1:1 as depicted.

A large number of infections were observed in summer and autumn whereas winter had the least number. In summer the months include June, July and August and while in winter it includes December, January and February. And in spring also March, April and May months.

Total of children with the infection in this study is further seen in type of infection as bacterial, fungal, viral, parasite as shown in Table 2.

**Table 2: Types of Infections**

Infection and infestation	Frequency, n (%)
Bacterial infection	22 (4)
Fungal infection	77 (14)
Viral infection	48 (8.7)
Parasitic infestation	76 (13.8)
Total	223 (40.5)

In bacterial infections the most common cases were of imigo and folliculitis and again followed by furuncle. In the fungal infections, the tinea corporis constituted the more percentage the tinea cruris. Among the viral infection data the viral wart was mostly seen in the infants then the varicella in viral infection. The scabies was the mostly seen parasitic infestation constituting 3.2% in overall infection data.

Among papulosquamous diseases, psoriasis was the most common disease, with 31.6% (12), followed by lichen planus with 28.9% (11) and pityriasis with 26.3% (10). Lichenoid disease comprises 10.5% (4) and pityriasis pilar 2.6% (1). Among pigmentary diseases, vitiligo (25 cases) was the most common disease in children. Vitiligo vulgaris (16) was the most frequent symptom, followed by mucosal vitiligo (5), focal vitiligo (3), and apical vitiligo (1). Three patients were diagnosed with previous or early-stage vitiligo.

Among hypersensitivity, acute urticaria (17 cases) was the most frequent, followed by papulopapular urticaria (14 cases), chronic urticaria (2 cases) and dermatographism (1 case).

In this study, keratosis disorders accounted for 4% of all skin diseases (22). Palmoplantar keratoderma (11) was the most common disease, followed by keratoderma (7). Other conditions observed were ichthyosis (2; ichthyosis vulgaris and lamellar ichthyosis, 1 each), congenital onychomycosis (1), and keratosis pilaris (1).

Among all disorders, hair loss represents 4.4% (24). There were 14 cases of alopecia areata, 6 cases of early motility alopecia, 2 cases of chronic telogen effluvium, 1 case of traction alopecia, and 1 case of female pattern baldness.

Phrynoderma (13 cases) was the most common disease seen in malnutrition. Nevi account for 0.9% of all skin diseases. Cases of depigmented nevus, epidermal nevus, congenital melanocytic nevus, linear and spiral nevus hypermelanosis and sebaceous nevus hyperplasia are presented.

Among sebaceous gland disorders, acne vulgaris was observed in 19 cases and truncal acne in 1 case. In photosensitivity, 18 polymorphic photoeruptions were observed.

Connective tissue diseases (5 cases: morphia - 4, Periormberg's syndrome - 1), sweat gland disorders (6 cases: palmoplantar hyperhidrosis - 4, crystalline malaria - 2), perforation diseases (2 cases of reactive perforation ) other skin diseases such as collagen disease), bullous bullosa (chronic bullous skin in childhood 1 case), developmental disorder (skin hypoplasia 2 cases), necrotic disease (granuloma annulare 1 case), lymphatic disorder (perilymphangioma) in 1 case, acanthosis epidermis (other side effects) 5 cases: erythema multiforme in 2 cases, Stevens-Johnson syndrome in 3 cases), keloids/hypertrophic scars in 5 cases, xerosis in 7 cases, simple prurigo in six cases.

### **Discussion:**

The study involved 250 children aged 1-5 years who were diagnosed with skin infections. This is consistent with a similar study by Gupta et al.[6] The largest group was the 5-8year group. - Older children. There were 291 boys (52.9%) and 259 girls (47.1%), with a male to female ratio of 1.12:1. These results were similar to other studies by Jose et al [7,8] and Nagarajan et al. When the number of men is more than the number of women.[9]

In this study, the most common patterns of skin diseases were infections and infectious diseases, which accounted for 40.5% (223 cases). Eczema/dermatitis was the next most common, accounting for 14.4% (79 cases). This was consistent with similar studies by Gupta et al [6] Reddy et al [10] Caprono et al [11] and Nagarajan et al [11]. The school environment exposes children to the risk of infectious skin diseases.

Among the 223 (40.5%) children with infections and infections in the present study, fungal infections were the most common (14%). This was followed by parasitic, viral and bacterial infections at 13.8%, 8.7% and 4% respectively. This result was comparable to Baskaran et al [12] Sangameshwara and Venkatesh, [13] Podyal et al [14] Reddy and Narasimha Rao, [15] Gupta et al [6] and other studies by Kiprono. [11] Fungal infections were the most common infections in all these studies. Studies by Parajeevi Baskaran et al [12] Podyal et al [14] Reddy and Narasimha Rao [15] and Gupta et al [6] found it to be the second most common, as reported in our study. The high prevalence of fungal infections in the elderly may be one reason for the similar high prevalence in children.

In the present study, impetigo and folliculitis were the most common bacterial infections. Impetigo was most common in the study by Baskaran et al. Bacterial infection. Infection

Taenia corporis was the most frequent fungal infection in our study, followed by Taenia corporis. Similar results were observed by Gupta et al [6] and Reddy et al [6].

Among viral infections, warts/viral warts were the most common, followed by chicken pox. A similar study by Venkatesh also found it to be the most common viral infection.

Scabies was the most frequent parasitic infection in our study, followed by childhood illness. These results were comparable to the studies of Baskaran et al [12], Gupta et al [6] and Reddy and Narasimha Rao [15].

The second most common group of skin diseases in this study was eczema. Among eczema, pityriasis alba was found to be the most common disease. This was consistent with other studies by Gupta et al. [6]. And Hasan et al.[16]

Psoriasis was the most common papulosic disease in this study, accounting for 6.9% of all skin diseases. Similar results were seen in a study by Sachidananda et al. and Karthikeyan et al.

In the present study, 5.1% of all skin diseases caused pigmentation disorders, with vitiligo being the most common disease. Sachidananda et al. A similar prevalence was found in a study [2]. and Karthikeyan et al [17,18].

The most common hair disorder in the present study was alopecia areata. This was consistent with the study of Vora et al [19].

In this study, 2.5% of all rashes were nutritional skin diseases, with phrenoderma being the most common condition. Karthikeyan et al. A study by [20,21] found a similar prevalence. Acne vulgaris was the most common sebaceous gland disorder in our study. This was consistent with the study of Gupta et al [6].

Most infections and infections in our study can be attributed to lack of awareness, overcrowding, malnutrition and poor hygiene among children. Therefore, these skin diseases can be prevented by effective health education for children and their parents and emphasizing the importance of good hygiene, nutrition and personal hygiene.

## Conclusion

The current study was done to determine the clinical pattern and prevalence of dermatoses disease among infants. A higher frequency of skin disease was observed as infection and infestation were compared with the non-infectious diseases. The fungal infections were most common seen infections and infestations, followed by parasitic, viral, and bacterial infections. Eczematous disorders were more prevalent among noninfectious diseases, followed by papulosquamous, hypersensitivity, and pigmentary disorders. Detailed knowledge about the pattern of dermatoses among infants age group in each geographic area will help us in implementing essential changes in health education and disease control strategies in the area concerned.

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