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Original Research Article

# Evaluation of dermatoses in pediatric age group (3-15 yrs) in accordance with seasonal variation

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ABSTRACT

**Background:** This study aimed to evaluate pediatric dermatoses based on clinical diagnosis and seasonal variation at a tertiary care hospital in Chennai. Informed consent was obtained, and histories recorded; diagnoses were based on physical examination. It included 271 patients aged 3–15 years, with a mean age of 7.93 ± 3.52 years (range: 3–15) and a median of 8 years (IQR: 5–10). The highest prevalence was in children aged 3–6 years, with a balanced gender distribution. Cases peaked during monsoon and summer. Infections, especially viral, were most common, with scabies being the leading diagnosis.

**Materials and Methods:** Patients aged 3-15 years who visited the dermatology OPD were selected. Informed consent was obtained from parents or guardians, and their medical, family, and treatment histories were recorded. A thorough physical examination was conducted to reach a diagnosis.

**Results:** The study included 271 patients, mostly younger children (mean age: 7.93 ± 3.52 years; range: 3–15; median: 8 years; IQR: 5–10).Participants included 51.5% males and 48.5% females, showing a balanced gender distribution. Distribution of participants by season, cases were highest in monsoon (32.6%) and summer (31.9%), with fewer in winter (24.4%) and post-monsoon (11.1%). Distribution of participants by disease group shows, Viral infections as the most common (21.1%), followed by parasitic infestations (13.0%), eczema (11.1%), and fungal infections (10.0%), with other disorders also observed.

**Conclusion:** The study found higher cases of pediatric dermatoses in children aged 3-6 years, with a balanced gender distribution. More cases occurred in monsoon and summer. Viral infections were most common, with scabies as the leading diagnosis, followed by chicken pox, insect bite hypersensitivity, atopic dermatitis, hand-foot-mouth disease, and verruca vulgaris.



## 1. Introduction

Dermatological conditions are common in children, accounting for 30% of pediatric outpatient visits.[1] These conditions often differ from adult presentations and may signal underlying systemic issues.[2] Factors such as malnutrition, poor hygiene, and limited sanitation contribute to their prevalence, particularly in lower socioeconomic groups.[3] Skin diseases can significantly affect children's physical and mental health, especially school-goers, due to social stigma.[4]

### 1.1. Common pediatric dermatoses

#### 1.1.1. Atopic dermatitis

Common in infancy and childhood, it often resolves by adolescence but may persist. A family history of atopic conditions increases susceptibility. It is slightly more common in females.[5]

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#### 1.1.2. Impetigo

Impetigo is a superficial bacterial infection, caused by Staphylococcus aureus or Streptococcus pyogenes, presents as yellow crusts, often on the face, arms, or legs. Factors like school attendance, poor hygiene, and skin breaks increase risk.

#### 1.1.3. Scabies

Scabies is caused by Sarcoptes scabiei var hominis, it burrows into the skin, laying eggs and results in intense itching and rash. Secondary bacterial infections can lead to complications like sepsis or chronic kidney disease.[6]

#### 1.1.4. Tinea corporis

Fungal infection presenting as circular, scaly patches, common in humid climates and poor hygiene.

#### 1.1.5. Pityriasis versicolor

Fungal infection causing discoloured, scaly skin patches, prevalent during humid summers.[7]

#### 1.1.6. Insect bite hypersensitivity

Also known as papular urticaria, triggered by hypersensitivity to insect bites, causing itchy red bumps, often inflamed at old bite sites.[8]

#### 1.1.7. Psoriasis

An autoimmune condition with itchy, erythematous papules or plaques covered with silvery scales and linked to genetics (16% risk with one affected parent, 50% with both).[9]

#### 1.1.8. Chicken pox

Caused by the varicella-zoster virus in school going childrens, it presents with vesicles and pleomorphic eruptions. Vaccination helps in control of its spread.[10]

### 1.2. Seasonal influence on pediatric dermatoses

In summer, heat and humidity cause heat rash, sunburn, worsened atopic dermatitis, and more insect bites. In winter, Dry air exacerbates eczema and psoriasis, with chilblains occurring due to cold exposure. Monsoon has High humidity fosters fungal infections (e.g., tinea), bacterial infections (e.g., impetigo), and increased insect bites.

This version preserves the key information while being concise.

## 2. Aims and Objectives

1. To assess the various dermatoses commonly encountered in children aged 3-15 years.
2. To assess its association with seasonal variation.
3. To come to a conclusion as to which diseases are more prevalent during each season in the given age group.

## 3. Materials and Methods

Patients who fulfil the inclusion criteria will be allocated to the study. Informed consent letter will be obtained from the patient's parent or guardian in their regional language after explaining the study in detail to them. Detailed history which includes patient's personal history, past medical and surgical history, history of atopy, family history, history of current medications (topical and systemic) will be noted. After thorough history taking, general physical examination will be done in order to help us arrive at a diagnosis. All the details of the study population like age, sex, clinical type and site of skin dermatoses if any will be noted. The various prevention methods and awareness about skin health will be explained verbally. All the data collected will be entered into an excel sheet and the prevalence of various dermatoses in accordance with seasonal variation will be noted and established. Evaluation of patients at every sitting – a clinical photograph will be taken of the lesions at every visit. Skin health counselling will be done.

### 3.1. Source of data

This study will be done by observational analysis from the patients visiting the Dermatology OPD and Pediatric OPD in CHRI.

### 3.2. Study type

Observational study.

### 3.3. Study period

November 2022 to November 2023.

### 3.4. Sample size

This is cross sectional (observational study) with sample size being 269 patients.

### 3.5. Inclusion criteria

1. Patients within the age group of 3- 15 yrs.
2. Patients whose parents give consent for study.
3. Both sexes.
4. Patients who come to the dermatology OPD and Pediatric OPD in CHRI with skin lesions as complaint.

### 3.6. Exclusion criteria

1. Patients whose parents do not give consent for study
2. Patients who do not fit the age group criteria i.e – below 3yrs and above 15yrs.

## 4. Results

### 4.1. Distribution of participants by age (Table 1)

Among children with pediatric dermatosis, participants were evenly distributed across ages, with a higher proportion of younger children compared to those older than 11 years. The mean age was 7.93 ± 3.52 years (range: 3–15 years). The median age was 8 years, with an interquartile range of 5 (5–10).

### 4.2. Distribution of participants by gender (Table 2)

Among participants, 51.5% were males and 48.5% females, indicating a nearly equal gender distribution.

#### 4.2.1. Distribution of participants by month of presentation (Table 3)

There were patients presenting all across the year, with the numbers ranging from 17 to 29 per month.

### 4.3. Distribution of participants by season (Table 4)

Cases were highest during the monsoon (32.6%) and summer (31.9%), with fewer during post-monsoon (11.1%) and winter (24.4%).

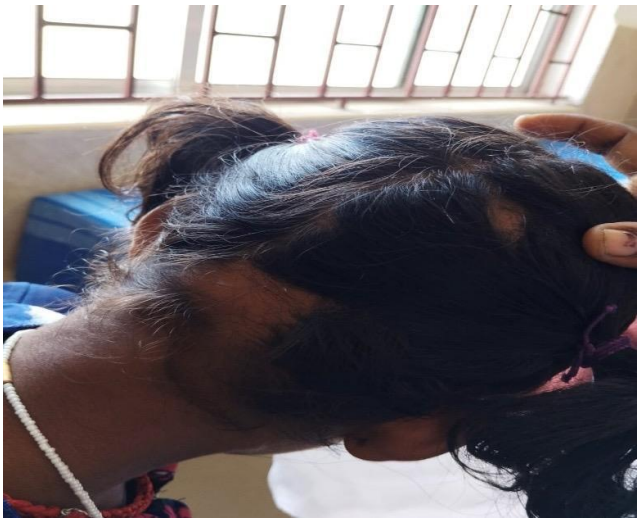

**Figure 1:** The image above shows alopeciaareata in a 10 year old female child

**Table 1:** Showing distribution of participants by age

| Age (years) | Frequency | Percent |
|---|---|---|
| 03 to 06 years | 112 | 41.5% |
| 07 to 10 years | 95 | 35.2% |
| 11 to 15 years | 63 | 23.3% |
| Total | 270 | 100.0% |

**Table 2:** Showing distribution of participants by gender

| Gender | Frequency | Percent |
|---|---|---|
| Male | 139 | 51.5% |
| Female | 131 | 48.5% |
| Total | 270 | 100.0% |

**Table 3:** Showing distribution of participants by month of presentation

| Month | Frequency | Percent |
|---|---|---|
| January | 24 | 8.9% |
| February | 20 | 7.4% |
| March | 26 | 9.6% |
| April | 24 | 8.9% |
| May | 17 | 6.3% |
| June | 21 | 7.8% |
| July | 24 | 8.9% |
| August | 29 | 10.7% |
| September | 23 | 8.5% |
| October | 21 | 7.8% |
| November | 18 | 6.7% |
| December | 23 | 8.5% |
| Total | 270 | 100.0% |

**Table 4:** Showing distribution of participants by season

| Season | Frequency | Percent |
|---|---|---|
| Summer | 86 | 31.9% |
| Monsoon | 88 | 32.6% |
| Post monsoon | 30 | 11.1% |
| Winter | 66 | 24.4% |
| Total | 270 | 100.0% |

**Table 5:** Showing distribution of participants by disease group

| Disease group | Frequency | Percent |
|---|---|---|
| Bacterial infections | 21 | 7.8% |
| Drug reaction | 2 | 0.7% |
| Eczema | 30 | 11.1% |
| Fungal infections | 27 | 10.0% |
| Hair disorders | 11 | 4.1% |
| Insect bite hypersensitivity | 16 | 5.9% |
| Keratinization disorders | 4 | 1.5% |
| Nutritional disorder | 10 | 3.7% |
| Papulosqaumous disorders | 10 | 3.7% |
| Parasitic infestation | 35 | 13.0% |
| Pigmentary disorders | 5 | 1.9% |
| Psychocutaneous disorders | 1 | 0.4% |
| Sebaceous gland disorders | 11 | 4.1% |
| Sweat gland disorders | 11 | 4.1% |
| Viral infection | 57 | 21.1% |
| Miscellaneous | 19 | 7.0% |
| Total | 270 | 100.0% |

**Table 6:** Showing distribution of participants by disease

| Diagnosed skin disease | Frequency | Percent |
|---|---|---|
| Acanthosis nigricans | 3 | 1.1% |
| Achrocordons | 1 | 0.4% |
| Acne | 9 | 3.3% |
| Acrodermatitis enteropathica | 3 | 1.1% |
| Allergic contact dermatitis | 4 | 1.5% |
| Alopecia areata | 3 | 1.1% |
| APAAN syndrome | 1 | 0.4% |
| Atopic dermatitis | 11 | 4.1% |
| Balinitis | 2 | 0.7% |
| Bromhydrosis | 1 | 0.4% |
| Chicken pox | 18 | 6.7% |
| Cutaneous larva migrans | 1 | 0.4% |
| Dermatitis artefacta | 1 | 0.4% |
| Drug reaction | 2 | 0.7% |
| Eczema | 4 | 1.5% |
| Fever with rash | 1 | 0.4% |
| Folliculitis | 1 | 0.4% |
| Herpes labialis | 4 | 1.5% |
| HFMD | 11 | 4.1% |
| Hidradenitis suppurativa | 1 | 0.4% |
| HSP vasculitis | 1 | 0.4% |
| Ichthyosis | 1 | 0.4% |
| Impetigo | 8 | 3.0% |
| Insect bite hypersensitivity | 16 | 5.9% |
| Leprosy | 4 | 1.5% |
| Lichen nitidus | 3 | 1.1% |
| Lichen simplex chronicus | 2 | 0.7% |
| Lichen striatus | 2 | 0.7% |
| Menkes Kinky Hair | 1 | 0.4% |
| Miliaria rubra | 8 | 3.0% |
| Molluscum contagiosum | 7 | 2.6% |
| Mongolian Spot | 1 | 0.4% |
| Naevus | 7 | 2.6% |
| Onychomycosis | 4 | 1.5% |
| Paederus dermatitis | 4 | 1.5% |
| Palmo-plantar hyperhydrosis | 1 | 0.4% |
| Pediculosis capitis | 7 | 2.6% |
| Periungual wart | 1 | 0.4% |
| Phrynoderma | 7 | 2.6% |
| Pigmentary demarcation lines | 1 | 0.4% |
| Pityriasis Alba | 4 | 1.5% |
| Pityriasis Rosea | 4 | 1.5% |
| Pityriasis Versicolor | 3 | 1.1% |
| Pre vitiligo | 1 | 0.4% |
| Premature canities | 1 | 0.4% |
| Psoriasis | 3 | 1.1% |
| Pyogenic granuloma | 2 | 0.7% |
| Scabies | 27 | 10.0% |
| Seborrheic dermatitis | 7 | 2.6% |
| SSSS | 5 | 1.9% |
| Subungual wart | 1 | 0.4% |

*Continued on next page*

*Table 6 continued*

| | | |
|---|---|---|
| Syringocystadenoma papilliferum | 1 | 0.4% |
| Telogen effluvium | 3 | 1.1% |
| Terra firme forme | 1 | 0.4% |
| Tinea Capitis | 3 | 1.1% |
| Tinea Corporis | 7 | 2.6% |
| Tinea Cruris | 7 | 2.6% |
| Tinea Pedis | 1 | 0.4% |
| Traction alopecia | 4 | 1.5% |
| Trichotillomania | 1 | 0.4% |
| Tuberculosis verrucosa cutis | 1 | 0.4% |
| Verruca vulgaris | 10 | 3.7% |
| Vitiligo | 3 | 1.1% |
| Xerosis cutis | 2 | 0.7% |
| Total | 270 | 100.0% |

**Table 7:** Showing comparison of season with disease group

| Disease group | | Season | | | | Total |
|---|---|---|---|---|---|---|
| | | Monsoon | Post monsoon | Summer | Winter | |
| Bacterial infections | Count | 7 | 2 | 5 | 7 | 21 |
| | % | 33.3% | 9.5% | 23.8% | 33.3% | 100.0% |
| Drug reaction | Count | 2 | 0 | 0 | 0 | 2 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Eczema | Count | 10 | 3 | 1 | 16 | 30 |
| | % | 33.3% | 10.0% | 3.3% | 53.3% | 100.0% |
| Fungal infections | Count | 9 | 4 | 9 | 5 | 27 |
| | % | 33.3% | 14.8% | 33.3% | 18.5% | 100.0% |
| Hair disorders | Count | 2 | 2 | 2 | 5 | 11 |
| | % | 18.2% | 18.2% | 18.2% | 45.5% | 100.0% |
| Insect bite hypersensitivity | Count | 7 | 1 | 6 | 2 | 16 |
| | % | 43.8% | 6.3% | 37.5% | 12.5% | 100.0% |
| Keratinization disorders | Count | 1 | 1 | 2 | 0 | 4 |
| | % | 25.0% | 25.0% | 50.0% | 0.0% | 100.0% |
| Nutritional disorder | Count | 3 | 1 | 5 | 1 | 10 |
| | % | 30.0% | 10.0% | 50.0% | 10.0% | 100.0% |
| Papulosqaumousdisorders | Count | 4 | 1 | 3 | 2 | 10 |
| | % | 40.0% | 10.0% | 30.0% | 20.0% | 100.0% |
| Parasitic infestation | Count | 14 | 2 | 13 | 6 | 35 |
| | % | 40.0% | 5.7% | 37.1% | 17.1% | 100.0% |
| Pigmentary disorders | Count | 2 | 0 | 3 | 0 | 5 |
| | % | 40.0% | 0.0% | 60.0% | 0.0% | 100.0% |
| Psychocutaneousdisorders | Count | 0 | 0 | 1 | 0 | 1 |
| | % | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| Sebaceous gland disorders | Count | 2 | 1 | 3 | 5 | 11 |
| | % | 18.2% | 9.1% | 27.3% | 45.5% | 100.0% |
| Sweat gland disorders | Count | 1 | 0 | 8 | 2 | 11 |
| | % | 9.1% | 0.0% | 72.7% | 18.2% | 100.0% |
| Viral infection | Count | 19 | 7 | 22 | 9 | 57 |
| | % | 33.3% | 12.3% | 38.6% | 15.8% | 100.0% |
| Miscellaneous | Count | 5 | 5 | 3 | 6 | 19 |
| | % | 26.3% | 26.3% | 15.8% | 31.6% | 100.0% |
| Total | Count | 88 | 30 | 86 | 66 | 270 |
| | % | 32.6% | 11.1% | 31.9% | 24.4% | 100.0% |

**Table 8:** Showing comparison of season with disease group

| Diagnosed skin disease | | Season | | | | Total |
|---|---|---|---|---|---|---|
| | | Monsoon | Post monsoon | Summer | Winter | |
| Acanthosis nigricans | Count | 1 | 0 | 2 | 0 | 3 |
| | % | 33.3% | 0.0% | 66.7% | 0.0% | 100.0% |
| Achrocordons | Count | 0 | 0 | 0 | 1 | 1 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Acne | Count | 2 | 1 | 3 | 3 | 9 |
| | % | 22.2% | 11.1% | 33.3% | 33.3% | 100.0% |
| Acrodermatitis enteropathica | Count | 2 | 0 | 1 | 0 | 3 |
| | % | 66.7% | 0.0% | 33.3% | 0.0% | 100.0% |
| Allergic contact dermatitis | Count | 2 | 0 | 0 | 2 | 4 |
| | % | 50.0% | 0.0% | 0.0% | 50.0% | 100.0% |
| Alopecia areata | Count | 1 | 0 | 1 | 1 | 3 |
| | % | 33.3% | 0.0% | 33.3% | 33.3% | 100.0% |
| APAAN syndrome | Count | 0 | 1 | 0 | 0 | 1 |
| | % | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| Atopic dermatitis | Count | 4 | 1 | 0 | 6 | 11 |
| | % | 36.4% | 9.1% | 0.0% | 54.5% | 100.0% |
| Balinitis | Count | 1 | 0 | 1 | 0 | 2 |
| | % | 50.0% | 0.0% | 50.0% | 0.0% | 100.0% |
| Bromhydrosis | Count | 0 | 0 | 1 | 0 | 1 |
| | % | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| Chicken pox | Count | 6 | 0 | 11 | 1 | 18 |
| | % | 33.3% | 0.0% | 61.1% | 5.6% | 100.0% |
| Cutaneous larva migrans | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Dermatitis artefacta | Count | 0 | 0 | 1 | 0 | 1 |
| | % | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| Drug reaction | Count | 2 | 0 | 0 | 0 | 2 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Eczema | Count | 0 | 1 | 0 | 3 | 4 |
| | % | 0.0% | 25.0% | 0.0% | 75.0% | 100.0% |
| Fever with rash | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Folliculitis | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Herpes labialis | Count | 0 | 1 | 2 | 1 | 4 |
| | % | 0.0% | 25.0% | 50.0% | 25.0% | 100.0% |
| HFMD | Count | 7 | 2 | 0 | 2 | 11 |
| | % | 63.6% | 18.2% | 0.0% | 18.2% | 100.0% |
| Hidradenitis suppurativa | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| HSP vasculitis | Count | 0 | 0 | 0 | 1 | 1 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Ichthyosis | Count | 0 | 1 | 0 | 0 | 1 |
| | % | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| Impetigo | Count | 4 | 1 | 1 | 2 | 8 |
| | % | 50.0% | 12.5% | 12.5% | 25.0% | 100.0% |

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*Table 8 continued*

| | | | | | | |
|---|---|---|---|---|---|---|
| Insect bite hypersensitivity | Count | 7 | 1 | 6 | 2 | 16 |
| | % | 43.8% | 6.3% | 37.5% | 12.5% | 100.0% |
| Leprosy | Count | 1 | 0 | 1 | 2 | 4 |
| | % | 25.0% | 0.0% | 25.0% | 50.0% | 100.0% |
| Lichen nitidus | Count | 1 | 1 | 1 | 0 | 3 |
| | % | 33.3% | 33.3% | 33.3% | 0.0% | 100.0% |
| Lichen simplex chronicus | Count | 0 | 0 | 1 | 1 | 2 |
| | % | 0.0% | 0.0% | 50.0% | 50.0% | 100.0% |
| Lichen striatus | Count | 2 | 0 | 0 | 0 | 2 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Menkes Kinky Hair | Count | 0 | 1 | 0 | 0 | 1 |
| | % | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| Miliaria rubra | Count | 0 | 0 | 7 | 1 | 8 |
| | % | 0.0% | 0.0% | 87.5% | 12.5% | 100.0% |
| Molluscum contagiosum | Count | 1 | 2 | 3 | 1 | 7 |
| | % | 14.3% | 28.6% | 42.9% | 14.3% | 100.0% |
| Mongolian Spot | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Naevus | Count | 2 | 1 | 1 | 3 | 7 |
| | % | 28.6% | 14.3% | 14.3% | 42.9% | 100.0% |
| Onychomycosis | Count | 2 | 0 | 1 | 1 | 4 |
| | % | 50.0% | 0.0% | 25.0% | 25.0% | 100.0% |
| Paederus dermatitis | Count | 1 | 2 | 1 | 0 | 4 |
| | % | 25.0% | 50.0% | 25.0% | 0.0% | 100.0% |
| Palmo-plantar hyperhydrosis | Count | 0 | 0 | 0 | 1 | 1 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Pediculosis capitis | Count | 2 | 1 | 3 | 1 | 7 |
| | % | 28.6% | 14.3% | 42.9% | 14.3% | 100.0% |
| Periungual wart | Count | 0 | 0 | 1 | 0 | 1 |
| | % | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| Phrynoderma | Count | 1 | 1 | 4 | 1 | 7 |
| | % | 14.3% | 14.3% | 57.1% | 14.3% | 100.0% |
| Pigmentary demarcation lines | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Pityriasis Alba | Count | 1 | 0 | 1 | 2 | 4 |
| | % | 25.0% | 0.0% | 25.0% | 50.0% | 100.0% |
| Pityriasis Rosea | Count | 1 | 1 | 1 | 1 | 4 |
| | % | 25.0% | 25.0% | 25.0% | 25.0% | 100.0% |
| Pityriasis Versicolor | Count | 0 | 2 | 0 | 1 | 3 |
| | % | 0.0% | 66.7% | 0.0% | 33.3% | 100.0% |
| Pre vitiligo | Count | 0 | 0 | 1 | 0 | 1 |
| | % | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| Premature canities | Count | 0 | 0 | 0 | 1 | 1 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Psoriasis | Count | 1 | 0 | 1 | 1 | 3 |
| | % | 33.3% | 0.0% | 33.3% | 33.3% | 100.0% |
| Pyogenic granuloma | Count | 0 | 0 | 1 | 1 | 2 |
| | % | 0.0% | 0.0% | 50.0% | 50.0% | 100.0% |
| Scabies | Count | 11 | 1 | 10 | 5 | 27 |

*Continued on next page*

*Table 8 continued*

| | | | | | | |
|---|---|---|---|---|---|---|
| | % | 40.7% | 3.7% | 37.0% | 18.5% | 100.0% |
| Seborrheic dermatitis | Count | 3 | 1 | 0 | 3 | 7 |
| | % | 42.9% | 14.3% | 0.0% | 42.9% | 100.0% |
| SSSS | Count | 1 | 1 | 2 | 1 | 5 |
| | % | 20.0% | 20.0% | 40.0% | 20.0% | 100.0% |
| Subungual wart | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Syringocystaden-omapapilliferum | Count | 0 | 0 | 0 | 1 | 1 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Telogen effluvium | Count | 1 | 1 | 1 | 0 | 3 |
| | % | 33.3% | 33.3% | 33.3% | 0.0% | 100.0% |
| Terra firme forme | Count | 1 | 0 | 0 | 0 | 1 |
| | % | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| Tinea Capitis | Count | 0 | 0 | 1 | 2 | 3 |
| | % | 0.0% | 0.0% | 33.3% | 66.7% | 100.0% |
| Tinea Corporis | Count | 5 | 0 | 2 | 0 | 7 |
| | % | 71.4% | 0.0% | 28.6% | 0.0% | 100.0% |
| Tinea Cruris | Count | 1 | 1 | 4 | 1 | 7 |
| | % | 14.3% | 14.3% | 57.1% | 14.3% | 100.0% |
| Tinea Pedis | Count | 0 | 1 | 0 | 0 | 1 |
| | % | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| Traction alopecia | Count | 0 | 1 | 0 | 3 | 4 |
| | % | 0.0% | 25.0% | 0.0% | 75.0% | 100.0% |
| Trichotillomania | Count | 0 | 0 | 1 | 0 | 1 |
| | % | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| Tuberculosis verrucosa cutis | Count | 0 | 0 | 0 | 1 | 1 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Verruca vulgaris | Count | 2 | 1 | 4 | 3 | 10 |
| | % | 20.0% | 10.0% | 40.0% | 30.0% | 100.0% |
| Vitiligo | Count | 1 | 0 | 2 | 0 | 3 |
| | % | 33.3% | 0.0% | 66.7% | 0.0% | 100.0% |
| Xerosis cutis | Count | 0 | 0 | 0 | 2 | 2 |
| | % | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% |
| Total | Count | 88 | 30 | 86 | 66 | 270 |
| | % | 32.6% | 11.1% | 31.9% | 24.4% | 100.0% |

### 4.4. Distribution of participants by disease group (Table 5)

Among all diseases, viral infections were the most common (21.1%), followed by parasitic infestations (13.0%), eczema (11.1%), and fungal infections (10.0%). Other disorders were also observed in the population.

### 4.5. Distribution of participants by disease (Table 6)

Scabies was the most common diagnosis (10.0%), followed by chicken pox (6.7%), insect bite hypersensitivity (5.9%), atopic dermatitis (4.1%), hand-foot-mouth disease (4.1%), and verruca vulgaris (3.7%). A detailed distribution is shown in the table above.

### 4.6. Comparison of season with disease group (Tables 7 and 8)

The above table shows distinct patterns in disease distribution. Eczema was most common in winter (53.3%). Fungal infections peaked in summer (33.3%) and monsoon (33.3%). Hair disorders were more frequent in winter (45.5%), while insect bite hypersensitivity was higher in monsoon and summer. Sweat gland disorders were predominant in summer (72.7%).

Comparison of season with disease group (Tables 1, 2, 3, 4, 5, 6, 7 and 8)

## 5. Discussion

This study was conducted at a tertiary care center with data from 270 pediatric patients presenting with dermatological complaints.[11] The age distribution of participants showed a higher proportion of younger children compared to those above 11 years, with a mean age of 7.93 ± 3.52 years (range: 3–15 years).[5] The median age was 8 years (IQR: 5–10). This contrasts with the findings of Kandpal R et al.,[12] who observed a higher proportion of school-going children with dermatosis in Uttar Pradesh.

In terms of gender, the study found a similar distribution, with 51.5% males and 48.5% females.

Seasonal variations showed the highest number of cases during the monsoon (32.6%) and summer (31.9%), with fewer cases in the post-monsoon (11.1%) and winter (24.4%) periods. This aligns with Kandpal R et al.[12] findings, which also identified the monsoon as the peak season for pediatric dermatoses.

Among the various diseases, viral infections were the most common (21.1%), followed by parasitic infestations (13.0%), eczema (11.1%), and fungal infections (10.0%). These findings are similar to those of Pawar S et al.,[13] who reported that infections and infestations accounted for 46.3% of cases, with eczema at 20.4%. However, in Kandpal R et al.[12] study, infections were the most common (47%), and eczema accounted for 31%. A contrasting study by

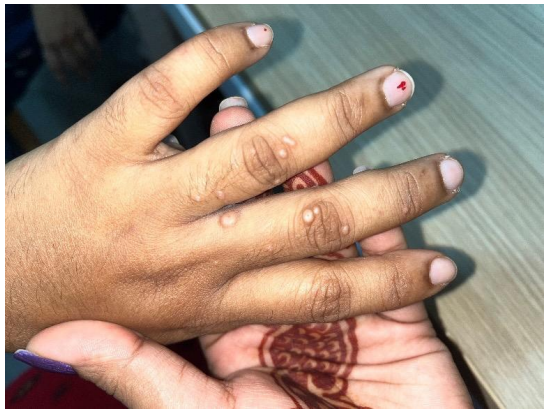

**Figure 2:** The image above shows the left hand of a 8 years old child with molluscum contagiosum

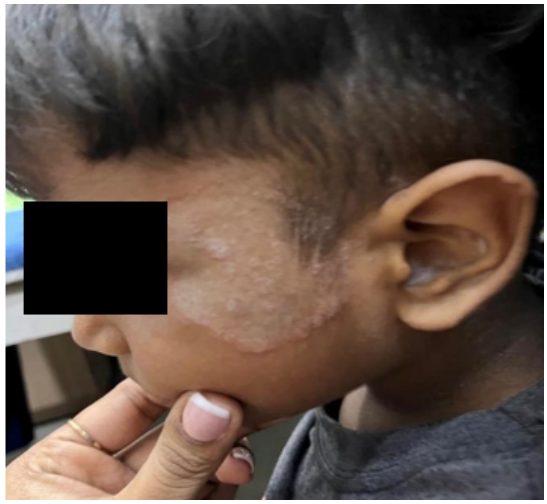

**Figure 3:** A case oftinea faciei in a 6 years old male diagnosed in summer.

Mavoori A et al.,[14] in South India found eczema as the most prevalent (22.57%), with infections and infestations following closely (20.8%).

Scabies was the most common diagnosis (10.0%), followed by chickenpox (6.7%), insect bite hypersensitivity (5.9%), atopic dermatitis (4.1%), hand-foot-mouth disease (4.1%), and verruca vulgaris (3.7%). This is in line with Pawar S et al.[13] study, where scabies was the most common diagnosis, followed by viral and bacterial infections in Central India.

Regarding seasonal variations, eczema was most prevalent in winter (53.3%), while fungal infections were more common in summer (33.3%) and monsoon (33.3%). Hair disorders occurred more frequently in winter (45.5%), and insect bite hypersensitivity was more common in monsoon and summer. Sweat gland disorders were most frequent in summer (72.7%). These seasonal patterns align with those observed by Uzuncakmak TK et al.,[15] who found

a higher prevalence of eczema in winter.

## 6. Conclusion

This study examined the proportion of paediatric dermatoses over a year, with a higher incidence in children aged 3 to 6 years, showing a similar gender distribution. Cases were more common during the monsoon and summer, compared to post-monsoon and winter. Infections were the most frequent, with viral infections being the most prevalent. Scabies was the most common individual diagnosis, followed by chicken pox, insect bite hypersensitivity, atopic dermatitis, hand-foot-mouth disease, and verruca vulgaris.

Eczema was most common in winter, while fungal infections peaked in summer and monsoon. Hair disorders were more frequent in winter and insect bite hypersensitivity occurred mainly in the monsoon and summer. Sweat gland disorders were predominantly observed in summer.

Understanding the seasonal patterns and distribution of dermatological diseases in children helps anticipate common cases and provides insight into skin conditions in this age group.

## 7. Conflict of Interest

None.

## 8. Source of Funding

None.

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