Section: DVL

Original Research Article

STUDY OF PATTERN OF DERMATOSIS IN PEDIATRIC POPULATION IN A TERTIARY CARE HOSPITAL

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Received *: 07/01/2026*
Received in revised form *: 22/02/2026*
Accepted *: 10/03/2026*

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DOI: 10.70034/ijmedph.2026.1.541

Source of Support: Nil,
Conflict of Interest: None declared

Int J Med Pub Health
2026; 16 (1); 3155-3162

ABSTRACT

Background: Pediatric dermatoses constitute a significant proportion of outpatient visits and reflect a wide spectrum of infectious, inflammatory, nutritional, genetic, and environmental conditions. Understanding their pattern is essential for planning preventive, diagnostic, and therapeutic strategies. This study aimed to analyze the clinical profile and distribution of pediatric dermatoses in children attending a tertiary care center.

Materials and Methods: This was a hospital-based observational study conducted among 295 children presenting with dermatological complaints. Detailed clinical evaluation was performed, supported by relevant laboratory and bedside investigations such as KOH mount, Gram stain, Giemsa stain, Tzanck smear, and other tests as indicated. Ethical approval was obtained, and informed consent was secured from parents or guardians. Data were analyzed using descriptive statistics to determine the frequency and distribution of various dermatoses.

Results: There was a male predominance (56.9%), with most children (61%) belonged to the 6–12-year age group. The majority (37.9%) presented within six months of onset of symptoms. Cutaneous infections and infestations were the most common category (28.1%), followed by eczema (15.6%). Among infections, fungal infections predominated, while scabies was the most frequent infestation. Papulosquamous disorders (6.8%) and disorders of sebaceous and sweat glands (5.8%) were notable non-infectious conditions. Pigmentary disorders (5.1%), keratinization disorders (4.4%), and hair and nail disorders (4.1%) were observed in smaller proportions. Less frequent conditions included cutaneous vascular disorders (3.4%), genodermatoses (3.1%), nutritional dermatoses (2.4%), and adverse cutaneous drug reactions (2.7%). A substantial miscellaneous group (13.6%) comprised diverse conditions such as papular urticaria, pityriasis rosea, viral exanthems, and photodermatoses.

Conclusion: Pediatric dermatoses in India show wide regional variation influenced by socio-economic, environmental, and hygiene-related factors, with many conditions being preventable. The findings highlight the need for early diagnosis, health education, and targeted preventive measures to reduce the burden of common and avoidable skin diseases in children.

Keywords: Pediatric dermatoses; Cutaneous infections; Eczema; Skin diseases.

INTRODUCTION

Pediatric dermatoses are common worldwide and show significant diversity in patterns and clinical manifestations and differ proportionately from that observed in adults. Skin diseases in the pediatric age group can be transitory or chronic and constitute a major health problem with significant morbidity.[1] Considering the increasing prevalence of pediatric dermatoses in India and worldwide, prompt and

appropriate clinical management along with focused pediatric health attention are warranted. Studies suggest that nearly 30% of pediatric primary care consultations are related to skin disorders, and similarly, about 30% of all dermatology outpatient visits involve children. [2,3] In India, school-based surveys have reported the prevalence of pediatric dermatoses to range from 8.7% to 35% across different regions.[4]

The specific pattern of pediatric dermatoses in developing countries is strongly related to multiple factors like poor personal hygiene, inappropriate dietary habits, malnutrition, overcrowding, as well as climatic changes, socioeconomic and external environmental conditions. [5,6] Preschool children and school-going children, particularly in underdeveloped and developing countries, are more vulnerable to skin infections and infestations due to factors such as poverty, malnutrition, adverse environmental conditions, low socioeconomic status, overcrowding, lack of health awareness, and inadequate personal hygiene. [7,8]

In addition, chronic and recurrent dermatoses may have a considerable adverse psychological impact on affected children and their families. Likewise, many cutaneous infections in school-going children may predispose them to absenteeism, poor academic performance and reduced self-esteem about future career orientations.

Despite the high burden of pediatric dermatoses in developing countries, few population-based studies focus specifically on skin disorders in children. However, literature documenting the pattern of pediatric dermatoses from several parts of the country remains limited and most evidence of numerous epidemiological studies originates from school-based surveys and tertiary-care hospital settings. Therefore, the present study was undertaken to evaluate the spectrum and patterns of dermatoses in the pediatric population in our setting.

Aim: To Study various pattern of dermatoses in pediatric population.

Objective: To evaluate frequency and distribution of dermatoses in pediatric patients attending Dermatology Outpatient Department.

MATERIALS AND METHODS

Study design and setting and subjects

This was a descriptive observational study conducted in the Department of Dermatology, Venereology and Leprosy at a tertiary care center in central India over a period of one year. The study comprised all consecutive patients aged ≤12 years presenting with dermatoses to the Dermatology OPD during the study period were included. After obtaining approval from the Institutional Ethics Committee, eligible children were enrolled following written informed consent from their parents or guardians in Hindi or English prior to inclusion in the study. While all patients <12 years of age were considered for inclusion, children with systemic illnesses and those with dermatoses secondary to radiation, trauma, or burn injuries were excluded. Confidentiality of patient data, including photographic documentation, was strictly maintained.

Data collection and analysis

For each enrolled patient, a detailed history was obtained, including age of onset, duration and distribution of lesions, mode of progression, presence of mucosal involvement; associated symptoms, comorbidities and aggravating factors. A thorough general and systemic examination was performed, and a complete dermatological examination was carried out in all patients as per a predesigned proforma. Routine investigations such as complete blood count, renal and liver function tests, serum electrolytes etc. were performed as required, while specific investigations like KOH mount, Gram stain, Giemsa stain, Tzanck smear and skin biopsy were done wherever indicated to aid etiological diagnosis. The collected data were analyzed using appropriate statistical software, with descriptive statistics and relevant tests applied to assess associations and differences.

RESULTS

The present study included 295 children, with a male predominance (168; 56.9%) with a male-to--female ratio (1.3:1). Most children were in the older age groups, with the highest proportion in 6-10 years (136; 46%) and 11-12 years (44; 15.0%) together accounting for 61.0% of cases, while infants (<1year) formed the smallest group (47; 16.0%). Most children presented within six months of onset, with symptoms of 1-6 months in 112 (37.9%) cases and 0-1month in 79 (26.8%) cases (Table 1).

The pattern of pediatric dermatoses among 295 children, showed that cutaneous infections and infestations were the most common dermatoses (83; 28.1%), followed by eczema (46; 15.6%), papulosquamous disorders (20; 6.8%) and sebaceous and sweat gland disorders (17; 5.8%). Pigmentary disorders (15; 5.1%), keratinization disorders (13; 4.4%), and hair/nail disorders (12; 4.1%) each accounted variably. Less common conditions included cutaneous vascular diseases (3.4%), genodermatoses (3.1%), and adverse cutaneous reactions (2.7%) along with wide range of relatively rare conditions and sporadic diagnoses being reported in study (Table 2).

Among infectious and infestation dermatoses, fungal infections were the most frequent category (31; 10.5%), followed by infestations (20; 6.7%), viral infections (18; 6.1%) and bacterial infections (14; 4.7%). Within infestations, scabies was the dominant condition (18 cases) with male preponderance (10 cases) and most patients (15 cases) had symptoms for less than 1 month, while pediculosis was seen in 2 cases with equal sex distribution and scalp involvement. Among fungal infections, tinea

corporis was the most common (14; 16.9% of total infections), whereas other dermatophytoses and candidiasis-related conditions were seen in smaller numbers. Majority (58%) of fungal infections had symptoms for more than 1 month with increasing numbers (29%) of atypical morphological characteristics due to inadvertent use of topical corticosteroids. In bacterial infections, folliculitis predominated (8; 9.6% of total infections), while impetigo (3; 3.6% of total infections) and other diagnoses were relatively rare. Among viral infections, varicella (5; 6.0% of total infections) and hand-foot-and-mouth disease (4; 4.8% of total infections) were the leading causes (Table 3). All bacterial and viral infections presented exclusively within one month of presentation.

Eczema and other non-infectious eczematous disorders (46 cases; 15.6%) were most frequent in the 11–12 year age group (15 cases), followed by the 1–5 years and 6–10 years groups (12 cases each) Seborrheic dermatitis was the most common diagnosis (9 cases) in our study and the most frequently involved sites were the combined scalp and face (4 cases) followed by isolated scalp (3 cases) and intertriginous area (2 cases). Atopic dermatitis accounted for 6 cases and predominantly (8.7% of all eczematous disorders) affected younger children (0–5 years) with face and extensor surfaces being commonly involved sites. Hand eczema (4 cases) predominantly involved the palmar surface while pityriasis alba (4 cases) lesions presented as ill-defined hypopigmented patches with fine scaling with minimal inflammation. In the contact dermatitis group (4 cases) 66.6% cases presented acutely whereas all three cases of lichen simplex chronicus had chronic course of lesions. In the pompholyx group (2 cases), all had classical dyshidrotic type variant. Other conditions were relatively infrequent and distributed across age groups. (Table 4).

Papulosquamous disorders formed an important subgroup with 20 cases (6.8%), where psoriasis was the leading diagnosis (8; 2.7%) with chronic plaque psoriasis being the most common type (6 cases) followed by guttate psoriasis (2 cases). Out of 5 cases (1.7%) of lichen planus, classical lichen planus was the most frequent type in 3 cases while hypertrophic and linear variants were observed in 1 case each. Pityriasis rosea (4; 1.4%) typically presented with truncal involvement, whereas all 3 cases of lichen striatus persisted for more than 1 year, emphasizing the burden of chronic inflammatory dermatoses.

Disorders of sebaceous and sweat glands accounted for 17 cases (5.8%), with acne being the most frequent (8 cases; 2.7%) predominantly affecting older children, followed by miliaria rubra (4; 1.4%) which was commonly seen in younger children and was associated with hot and humid climatic conditions. Palmoplantar hyperhidrosis (3; 1.0%) was observed mainly in school – going children, and acneiform eruptions in 2 cases (0.7%), indicating a predominance of conditions related to pilosebaceous activity and sweat dysfunction.

Hyperpigmented and hypopigmented disorders constituted 15 cases (5.1%), dominated by vitiligo vulgaris (9; 3.1%), while freckles and post-inflammatory hyperpigmentation each contributed 3 cases (1.0%). The most common variant of vitiligo observed in our study was acrofacial type (4 cases; 44.4%) followed by segmental vitiligo (2 cases; 22.2%) while freckles were most commonly observed in female children (66.6%).

Disorders of keratinization accounted for 13 cases (4.4%), with palmo-plantar keratoderma being the most common (5; 1.7%) and predominantly presented as diffuse, uniform and symmetric hyperkeratosis, followed by ichthyosis vulgaris was the most frequent ichthyotic disorder (4; 1.4%), while pityriasis rubra pilaris and keratosis pilaris groups consisted of 2 cases each (0.7%).

In present study 12 cases (4.1%) were recorded for hair and nails disorders which further consisted of alopecia areata (5 cases; 1.7%), predominantly involving the scalp, tinea capitis (4 cases; 1.4%) mainly of black dot variant and affecting school going children, cumulatively reflecting both autoimmune and infectious aetiologies in these respective groups of disorders. Trachyonychia (2 cases) and Beau's lines (1 case) were also evident in this group.

Nevi constituted 12 cases (4.1%), with congenital melanocytic nevus (3; 1.0%) being most common, while other nevi such as Becker's nevus (2), capillary hemangioma (2), and nevus of Ota (2) were less frequent (0.7% each). Nevus sebaceus, Atypical melanocytic nevus and Port wine stain were seen in 1 cases each.

Cutaneous vascular disorders together accounted for 10 cases (3.4%), with urticaria being most frequent (4; 1.4%), followed by erythema multiforme (3; 1.0%). which exclusively involved the extremities (100%) and was commonly associated with preceding upper respiratory tract infections (66.6%). Also, immune thrombocytopenic purpura (2; 0.7%), and Henoch–Schönlein purpura (1; 0.3%) were observed in this group.

Genodermatoses formed 9 cases (3.1%), with neurofibromatosis, epidermodysplasia verruciformis, and ectodermal dysplasia each contributing 2 cases (0.7%), while rarer conditions such as 1 case each of tuberous sclerosis, aplasia cutis and xeroderma pigmentosum were also noticed.

Nutritional dermatoses were identified in 7 cases (2.4%), with phrynoderma (5; 1.7%) being chief disorder and particularly involving the elbows (100%), knees (60%) and buttocks (40%), while acrodermatitis enteropathica (2; 0.7 %), affected periorificial areas and acral sites universally, decisively underscoring ongoing nutritional deficiencies.

Adverse cutaneous drug reactions accounted for 8 cases (2.7%), chiefly drug-induced morbilliform rash (4; 1.4%), involving the trunk with subsequent spread to extremities without exception, with fewer cases of fixed drug reaction (3; 1.0%) and single case (0.3%)

of Stevens–Johnson syndrome presenting with extensive mucocutaneous involvement.

Autoimmune bullous disorders were relatively uncommon (3; 1.0%), consisting two cases of chronic bullous disorder of childhood (0.7%) and one case of dermatitis herpetiformis (0.3%) with typical lesional morphology and distribution

The miscellaneous group comprised 40 cases (13.6%), and consisted of papular urticaria which was the most frequent diagnosis in this category (12; 4.1%), followed by paederus dermatitis and polymorphic light eruption (5 cases each; 1.7%), while several entities such as granuloma annulare, neutrophilic dermatoses, suction blisters, porphyria, cutis laxa and mastocytosis were also observed in our study. (Table 2)

Table 1: Baseline characteristics of dermatoses in children (N = 295)

Variables		Numbers
Age	**<1 year**	47 (16.0)
	1-5years	68 (23.0)
	6-10years	136 (46.0)
	11-12 years	44(15.0)
Gender	**Male**	168 (56.9)
	Female	127 (43.1)
Duration	**0-1 month**	79 (26.8)
	1-6 month	112 (37.9)
	6-12 month	63 (21.4)
	>1 year	41 (13.9)

Table 2: Distribution of Various Pediatric Dermatoses in Children (N = 295)

Dermatoses	N	(%)
Cutaneous Infections & Infestations	83	28.1
Eczema	46	15.6
Papulosquamous Disorders	20	6.8
Disorders of Sebaceous & Sweat Glands	17	5.8
Hyper and Hypopigmented Disorders	15	5.1
Disorders of Keratinization	13	4.4
Disorders of Hair and Nail	12	4.1
Nevi	12	4.1
Cutaneous Vascular Disorders	10	3.4
Genodermatoses	9	3.1
Adverse Cutaneous Drug Reactions	8	2.7
Nutritional Dermatoses	7	2.4
Autoimmune Bullous Disorders	3	1.0
Miscellaneous	40	13.6
Miscellaneous – Papular Urticaria (12), Paederus Dermatitis (5), PMLE (5), Photoallergic Dermatitis (3), Suction Blister (3), Neutrophilic Dermatosis (2), Friction Blister (2), Granuloma Annulare (2), Porphyria (1), Cutis laxa (1), Childhood SLE (1), Mastocytosis (1), Pyogenic Granuloma (1), Xanthoma (1).		

Table 3: Distribution of Infection and infestation among study participants (N = 83, 28.1% of total pediatric dermatoses)

Category	Disease	M	F	N	% (of total infection)
Infestations (N = 20)	**Scabies**	10	8	18	21.7
	Pediculosis	1	1	2	2.4
Fungal Infections (N = 31)	**Tinea Corporis**	8	6	14	16.9
	Tinea Capitis	2	2	4	4.8
	Tinea Cruris	2	1	3	3.6
	Tinea Faciei	2	1	3	3.6
	Pityriasis Versicolor	1	1	2	2.4
	Onychomycosis	1	0	1	1.2
	Intertrigo	1	0	1	1.2
	Tinea Pedis	1	0	1	1.2
	Cutaneous Candidiasis	0	1	1	1.2
	Tinea Manuum	1	0	1	1.2
Bacterial Infections (N = 14)	**Folliculitis**	5	3	8	9.6
	Impetigo	2	1	3	3.6
	Leprosy	1	0	1	1.2
	Lupus Vulgaris	1	0	1	1.2
	Furuncle	1	0	1	1.2
Viral Infections (N = 18)	**Varicella**	3	2	5	6.0
	Hand, Foot and Mouth Disease	2	2	4	4.8
	Viral Exanthem	2	1	3	3.6
	Molluscum Contagiosum	1	1	2	2.4
	Gianotti-Crosti Syndrome	1	0	1	1.2

	Verruca Vulgaris	1	0	1	1.2
	Verruca Plana	1	0	1	1.2
	Herpes Simplex Virus Infection (Herpes Labialis)	1	0	1	1.2

Table 4: Distribution of Eczematous Disorders (N = 46)

Disorder	<1 yrs	1–5 yrs	6–10 yrs	11–12 yrs	Total
Seborrheic Dermatitis	3	3	1	2	9
Hand Eczema	0	1	1	2	4
Irritant Contact Dermatitis	1	0	0	1	2
Allergic Contact Dermatitis	0	1	0	1	2
Atopic Dermatitis	2	2	1	1	6
Pityriasis Alba	0	1	1	2	4
Diaper Dermatitis	0	1	1	0	2
Lichen Simplex Chronicus	0	1	1	1	3
Lichen Striatus	0	0	1	0	1
Lichenoid Dermatitis	0	1	1	0	2
Juvenile Palmoplantar Dermatosis	0	0	1	1	2
Perianal Dermatitis	0	0	1	0	1
Pompholyx	0	0	1	1	2
Photoallergic Eczema	0	0	0	1	1
Lichenoid Eczema	0	0	1	0	1
Nummular Eczema	0	1	0	0	1
Fingertip Eczema	1	0	0	0	1
Discoid Eczema	0	0	0	1	1
Eczematous Polymorphous Light Eruption	0	0	0	1	1
Total	**7**	**12**	**12**	**15**	**46**

Figure 1- A-Tinea Corporis; B- Molluscum Contagiosum; C- Varicella; D- Impetigo; E- Scabies; F- Tinea capitis

Figure 3- Alopecia Areata; B-; Phrynoderma C- Lentigines D- Guttate Psoriasis; E-Paederus dermatitis; F- Dowling-Degos Disease

Figure 2- A-Seborrheic Dermatitis ; B-Vitiligo; C-Acute Urticaria; D- Atopic Dermatitis; E- Pityriasis Alba; F- Contact Dermatitis

Figure 4 A- Mongolian Spot; B-Congenital Melanocytic Nevus; C- Capillary Hemangioma; D- Nevus of Ota

DISCUSSION

In this hospital-based study of 295 children with dermatoses, the highest burden was seen in the 6–12-year age group (180; 61 %), 1–5 years (68; 23.0%), and infants <1 year (47; 16.0%). There was a modest male preponderance (168 males; male-to-female ratio 1.3:1).

Similarly, Chitapur et al. studied 550 children aged 5–14 years and, similar to the present study, observed a clear male predominance (52.9% males; M:F=1.12:1); however, their study excluded infants and preschool children and showed that most cases occurred below 10 years (60.9%), highlighting high susceptibility during early school age due to increased exposure to infections and overcrowding.[9] Khan FA et al., with a much larger cohort of 4,850 children, reported that the majority of dermatoses (62.8%) occurred in the 5–14-year age group and noted consistent male predominance (57.4%). These findings closely align with the present study.[10]

In the present study, most children presented relatively subacute and chronic, with 64.7% reporting symptoms within 6 months (26.8% within 1 month and 37.9% within 1–6 months), while only 13.9% had symptoms for more than one year. In contrast, Mridula A M et al. (n=282) reported predominantly strong acute presentations, with 0–1 month duration of illness in 207 children (73.4%), 1–6 months in 52 (18.43%), and >6 months duration in 23 cases (8.1%).[11] This difference likely reflects variation in case-mix and healthcare-seeking, culminating in more persistent or delayed-presentation dermatoses in our study.

In the present study, cutaneous infections and infestations (28.1%) were the most common pediatric dermatoses, followed by eczema (15.6%). Other frequently observed conditions included papulosquamous disorders (6.8%), disorders of sebaceous and sweat glands (5.8%), and pigmentary disorders (5.1%), while less common conditions such as genodermatoses, autoimmune bullous disorders, nutritional dermatoses, and adverse drug reactions were seen in smaller proportions, highlighting the diverse clinical spectrum encountered in children. A comparable pattern was reported by Reddy VS et al., who studied 500 children and also found infections and infestations (33.8%) and eczema (32.6%) as the two most common etiological categories.[12] In the study by Tuteja A et al., infestations were noted in 20 cases (6.7%), maximum (10.0%) in 5–10 years, and eczematous dermatitis was observed in 91 cases (30.3%) , mostly in under 5 years.[13]

In the present study, infestations were seen in 20 children, with scabies being the most common (18 cases; 21.7% of group), while pediculosis was much less frequent (2 cases; 2.4% of group). A similar pattern was reported by Mavoori A et al., who studied a much larger group of 1,360 children and also found scabies as the leading infestation (15.44%), followed by pediculosis (3.53%).[10] Although the absolute numbers were higher due to the larger sample size, the overall trend of scabies being more common than pediculosis was consistent with the present study. Likewise, Khan FA et al. reported infestations in 22.04% of children, with scabies accounting for the majority (21.27%) and pediculosis forming a very small proportion (0.77%).[14]

In the present study, fungal infections were observed in 31 children, with tinea corporis (16.9% of total infections) being the most common, followed by tinea capitis (4.8% of total infections) and tinea cruris and tinea faciei (3.6% each of total infections). Shameena AU et al. (Karnataka, 2017) also reported a high burden of fungal infections (26.1%), but with a greater proportion of pityriasis versicolor (14.6%) and tinea cruris (7.8%), likely due to school-based sampling and humid climatic conditions.[15] Sanjeen L et al. (Bangladesh, 2024) found even higher prevalence, particularly among adolescents, with tinea corporis (57.7%) and tinea cruris (42.9%) predominating, while tinea capitis was more common in younger children.[16]

In our study, bacterial infections formed a small proportion of pediatric skin disorders and were seen in 14 children, with folliculitis being the most common (9.6% of total infections), followed by impetigo (3.6% of total infections), while furuncle, leprosy, and lupus vulgaris were observed only in isolated cases (1.2% each of total infections). Shameena AU et al. reported a higher prevalence of bacterial infections (18.7%) among school children, with acne (7.15%), pyoderma (6.5%), and folliculitis and furuncle (2.1% each) being the common presentations. The higher frequency in their study may be explained by school-based sampling, close contact among children, and inclusion of acne.[15] Similarly, Putta KM et al. reported bacterial infections in 12.6% of children, a proportion higher than that observed in the present study.[17]

In the present study, viral infections were seen in 18 children, with varicella (6.0% of total infections) and hand-foot- and -mouth disease (4.8% of total infections) being the most common, while viral exanthem (3.6% of total infections) molluscum contagiosum (2.4% of total infections), warts, gianotti-crosti syndrome and herpes simplex infection (1.2% each of total infections) were observed in small number. This shows that acute viral exanthems formed the major viral dermatoses in the study population. Similarly, Chitapur VG et al. observed viral infections in 8.7% of children, which is comparable to the present study.[9] Conversely, Poudyal Y et al. reported a much higher number of viral infections, with warts (94 cases) and molluscum contagiosum (24 cases) being the predominant conditions among 147 cases of viral infections in their study.[20] This difference may be due to the inclusion of older children and adolescents, in whom warts are more common.

In the present study, eczematous and other non-infectious dermatoses were distributed fairly evenly

across age groups, with a slight increase in older children (10–12 years). Seborrheic dermatitis (9 cases) and atopic dermatitis (6 cases) were the most common conditions, followed by hand eczema and pityriasis alba (4 cases each). Sivasankari M et al. studied a much larger population (0–19 years) and also found atopic dermatitis (30.1%) and seborrheic dermatitis (21.5%) as the most common eczematous disorders, which is consistent with the present study.[18] However, they reported a higher overall burden of atopic dermatitis and pityriasis alba (15.5%), likely due to broader age inclusion, larger sample size, and dry desert climate, which predisposes to xerosis and eczema.

In the present study, papulosquamous disorders constituted 6.8% of total pediatric dermatoses with psoriasis (2.7%) and lichen planus (1.7%) being the commonest, a proportion notably higher than several published OPD-based series. Putta et al. reported comparatively fewer classical papulosquamous diagnoses (psoriatic lesions, 5.3% and lichen planus, 3.5%) contributing small proportions of the total cohort, while Awal G et al. also reported a lower overall burden of papulosquamous disorders (1.9%). and large outpatient datasets such as Poudyal et al. documented papulosquamous disorders around 1.6% [17,19,20] Mavoori A et al. similarly found low frequencies for psoriasis, lichen planus and lichen striatus (each <1% individually). [14] These differences are plausibly related to variation in age distribution, referral patterns, and diagnostic grouping, as papulosquamous diseases may cluster in later childhood and are influenced by whether adolescents are included and how inflammatory dermatoses are categorised.

With respect to adnexal and pigmentary conditions, disorders of sebaceous and sweat glands accounted for 5.8% in our cohort (acne 2.7%; miliaria rubra 1.4%), which is lower than studies including older adolescents, where acne is expectedly more prevalent, as reflected by higher acne rates reported by Poudyal et al. (10.1%) and Mavoori A et al.(10.44%).[14,20]

Hyper- and hypopigmented disorders comprised 5.1%, dominated by vitiligo (3.1%), broadly consistent with other studies highlighting vitiligo as the most frequent pigmentary diagnosis. [14,17] Disorders of keratinization formed 4.4% in the present study, palmoplantar keratoderma accounted for 1.7%, and ichthyosis vulgaris 1.4%. In comparison, Abrol S et al., reported hyperpigmentation disorders mainly as post-inflammatory hyperpigmentation (39 out of 250 cases) and periorbital/perioral melanosis (18), followed by pigmentary mosaicism (12), café-au-lait macules (9), Mongolian spot (9) and lentigines (7), while hypopigmentation/depigmentation disorders were chiefly pityriasis alba (39), vitiligo (35), and post-inflammatory hypopigmentation (30).[21] Chitapur, et al., similarly found a high pigmentary burden, dominated by vitiligo in 25 out of 550 cases and 3 cases of previtiligo or early vitiligo. [9]

Genodermatoses constituted 3.1% in our cohort, in comparison, Ashma S et al., reported genodermatoses in 10 patients (2%), which is slightly lower than our proportion.[22] Pawar S et al., found genetic disorders in 3.53% out of 820 cases with ichthyosis in 3 cases, neurofibromatosis in 2 cases, and nevi in 24 cases, suggesting genodermatoses appearing consistently but usually in low numbers.[23]

CONCLUSION

The spectrum of pediatric skin diseases in India shows considerable variation across geographic regions, states, rural and urban settings, and diverse terrains, highlighting the influence of socio-economic and environmental factors. In addition, these variations underscore the importance of community- and school-based hygiene education. Pediatric dermatoses require a distinct approach from adult skin diseases due to differences in clinical presentation, disease behaviour, treatment response, and prognosis.

The overall pattern of pediatric dermatoses indicates that a large proportion of childhood skin disorders are preventable and closely associated with hygiene practices, overcrowding, and environmental exposures. Local epidemiological data are therefore crucial for improving diagnostic accuracy, timely intervention, guiding resource allocation, and formulating effective preventive and therapeutic strategies while parental counselling, reassurance, and guidance remain integral components of pediatric dermatological care.

Future research should focus on multicentric, community-based, and longitudinal studies that incorporate socio-economic and environmental determinants, assess quality-of-life impact and treatment outcomes, and evaluate targeted interventions. Integrating paediatric skin health into national child-health programs is essential to address the substantial yet under-recognized public health burden of pediatric dermatoses.

Appropriate implementation of standardized, practical management protocols at the primary-care level to reduce transmission, recurrence, chronicity, and complications associated with pediatric dermatoses will remain the prime need of the hour.

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