

SPECTRUM OF DERMATOLOGICAL DISEASES AMONG SCHOOL GOING CHILDREN ATTENDING TERTIARY CARE HOSPITAL AT ISNAPUR, TELANGANA

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Abstract

Introduction: Children's morbidity is most often caused by cutaneous illnesses. Children are more likely to have minor skin injuries and skin infections due to the social and environmental factors they are often exposed to. The present study was designed to evaluate the spectrum of cutaneous manifestations in school children attending tertiary care hospital at Isnapur, Patancheru, Telangana.

Material and methods: Out of 2741 schoolchildren attending outpatient department of DVL, a total of 480 cases found to have skin infections. A detailed head to toe examination was performed. Details of cutaneous manifestations, personal hygiene, and personal habits were collected and analysed.

Results: pityriasis alba was most common eczematous disease followed by atopic dermatitis, seborrheic dermatitis and contact dermatitis in both genders. Impetigo contagiosa (5.46% in boys & 12.42% in girls) and pyoderma (5.46% in boys & 7.69% in girls) were common bacterial infections, Warts (3.21% in boys & 4.73% in girls) was common viral infection, and tinea capitis was common fungal infection in 4.50% of boys, and 11.24% of girls.

Conclusion: School-based health programmes should also involve teaching teachers and students' families about common skin disorders and how to avoid them. Regular skin examinations are advised in order to detect youngsters with infections.

Keywords: School children, Cutaneous infections, prevalence.

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Introduction

Dermatological infections are common in children around worldwide. Among children, the reported incidence ranged from 9 to 34% [1]. The variety of skin problems seen in children varies greatly, both geographically and seasonally that depends on personal hygiene, health status and nutritional status [2-3].

The prevalence of skin infection was ranged between 4.3-49.1% in India [4]. Clinics that treat skin conditions often encounter over 30% cases involving children less than 15 years old [5].

Skin infections are major public health concerns that impact the quality of life of children, their families, and the society

negatively. Because they are often long-lasting and noticeable on the skin, they diminish quality of life and place a financial and emotional strain on families and communities [6]. In children and adolescents, skin infections are more prevalent with male predominance [7]. The common skin symptoms in schoolchildren included infections such as pyoderma, scabies, eczema, infestations, and malnutrition [8]. Despite the frequency of skin illnesses in children, there have been few population-based epidemiological studies that quantify the incidence of skin diseases among school-aged children [9].

With reference to the above literature the present study was designed to evaluate the spectrum of cutaneous manifestations in school children attending tertiary care hospital at Isnapur, Patancheru, Telangana.

Materials and methods

The present study was conducted under department of Dermatology, Venereology and Leprosy, Maheshwara Medical College & Hospital, Isnapur, Telangana. A total of 2741 school going children attending outpatient department of Department of DVL between April 2021 to June 2022 were assessed for skin infections. Among them, 480 school going children of both genders were found to

have skin infections. School going children who were between age group 5-14 years were included. Children below 5 years and not willing to participate were excluded. Written informed consent was obtained from parents/guardians/ teachers and study protocol was approved by institutional ethics committee.

The sociodemographic and clinical examination details were gathered. A detailed head to toe examination was conducted in a separate room under daylight.

Details of children habits and personal hygiene were assessed through personal interview using self-developed proforma including frequency of bath, no of bath per day, type of soap, details of soap sharing, cloths sharing and frequency of underwear changing etc.

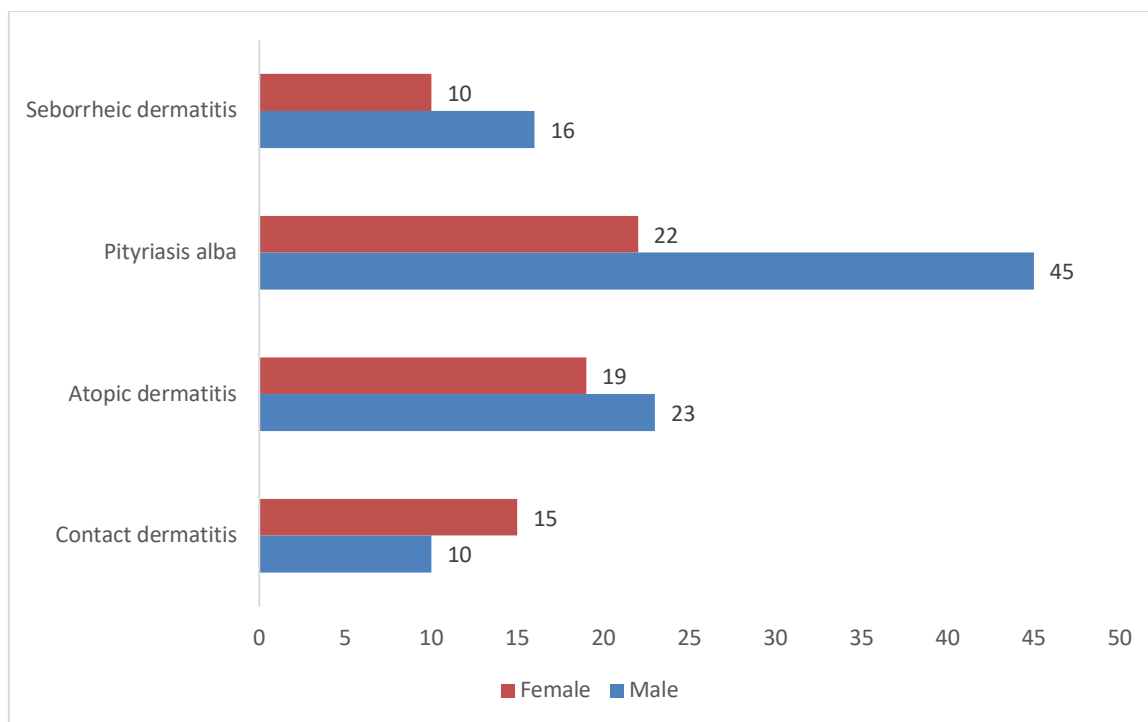
Details of visible bacterial, fungal, parasitic and viral infections, skin infections like dermatitis, hair & nail disorders, eczema, psoriasis were recorded.

The collected data was analysed by SPSS version 29.0. The categorical variables were represented in frequency and percentages.

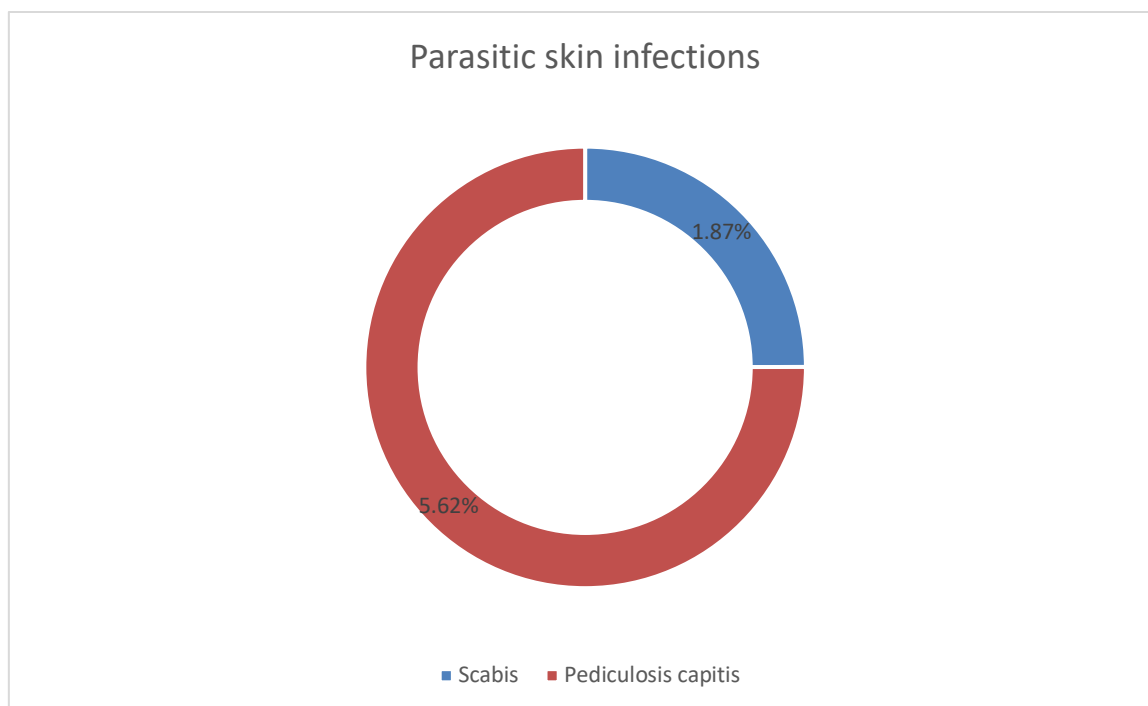
Results

Table 1: Sociodemographic details of study participants.

Parameters	Total no of cases (n=480)	
	Frequency	Percentage
Age (In years)		
5-9	194	40.41%
10-14	286	59.58%
Gender		
Boys	311	64.80%
Girls	169	35.20%
Residence		
Rural	226	47.08%
Urban	254	52.91%



Graph 1: Eczematous disease profile among school children.



Graph 2: Parasitic infection profile among school children

Table 2: Details of bacterial, fungal and viral infection profile among school children

Parameters	Boys (n=311)	Girls (n=169)
	Frequency (%)	Frequency (%)
Bacterial infections		
Ecthyma	01 (0.32%)	01 (0.59%)
Cellulitis	01 (0.32%)	02 (1.18%)
Impetigo contagiosa	17 (5.46%)	21 (12.42%)

Folliculitis	05 (1.60%)	08 (4.73%)
Erysipelas	01 (0.32%)	01 (0.59%)
Furuncle	03 (0.96%)	04 (2.36%)
Acne	09 (2.89%)	42 (24.85%)
Pyoderma	17 (5.46%)	13 (7.69%)
Viral infections		
Herpes simplex	04 (1.28%)	04 (2.3%)
Herpes zoster	02 (0.64%)	01 (0.59%)
Chicken pox	08 (2.57%)	02 (1.18%)
Warts	10 (3.21%)	08 (4.73%)
Molluscum contagiosa	-	-
Varicella	01 (0.32%)	01 (0.59%)
Corns	02 (0.64%)	02 (1.18%)
Fungal infections		
Pityriasis versicolor	03 (0.96%)	02 (1.18%)
Tinea capitis	14 (4.50%)	19 (11.24%)
Tinea corporis	03 (0.96%)	02 (1.18%)
Tinea ungium	01 (0.32%)	01 (0.59%)
Candidiasis	01 (0.32%)	-
Inflammatory conditions		
Acute urticaria	02 (0.64%)	01 (0.59%)
Ketoderma	04 (1.28%)	02 (1.18%)
Contact dermatitis	04 (1.28%)	04 (1.28%)
Mouth ulcers	10 (3.21%)	06 (3.65%)

Discussion

Majority participants were aged between 10-14 years followed by 5-9 years (40.41%). Boys (64.80%) were more common than girls (35.20%) and majority participants were resided in urban area (52.91%) followed by rural area (47.08%) (Table 1). In boys, pityriasis alba was most common eczematous disease followed by atopic dermatitis, seborrheic dermatitis and contact dermatitis. Similar disease pattern was observed in female participants (Graph 1). Pediculosis capitis was observed in 5.62% of children and scabies in 1.87% of children (Graph 2).

Impetigo contagiosa (5.46% in boys & 12.42% in girls) was common bacterial infection observed in both genders, followed by pyoderma (5.46% in boys & 7.69% in girls). Acne was high in girls (24.85%) than boys. Warts (3.21% in boys & 4.73% in girls) were common viral infection, followed by chicken pox, herpes

simplex, corns. Tinea capitis was common fungal infection in 4.50% of boys, 11.24% of girls followed by tinea corporis, Pityriasis versicolor. Mouth ulcers are commonly found inflammatory conditions followed by contact dermatitis, ketoderma and acute urticaria (Table 2).

According to A. Shravan Kumar et al., which examined 605 schoolchildren for skin infections, pediculosis (10.7%) and scabies (16.9%) were the two most common skin infections among the pupils. The incidence of seborrhea infection in children was determined to be 9.8%, whereas the prevalence of acne vulgaris was 10.2% [10].

According to study conducted in Wardha by Dongre et al., head lice (42.8%), scabies (36.6%), and numerous boils (8.9%) were common among the schoolchildren. The current study's results differed from the previous one [11]. Among 185 school-aged children surveyed

for a cross-sectional study by Khater MH et al., 45.4% had hypopigmentation. The most common causes of this condition were pityriasis alba (58.3% of the cases), pityriasis versicolor (17.9%), post-inflammatory hypopigmentation (10.7% of the cases), hypopigmented nevus (9.5% of the cases), and vitiligo (3.6%) [12]. 54% of youngsters in a Varanasi municipal school study conducted by Valia et al. had one or more skin conditions. The most prevalent ones are acne vulgaris (8%), pityriasis alba (12%), and pediculosis capitis (35%) [13]. Shreekrishna GN et al., reviewed 400 children for skin infections found overall prevalence of skin infections was 55.5%. Among that fungal infections were accounting 27.5%, bacterial infection in 15% and parasitic infections in 10% and viral infection in 3% of the subjects [14].

According to a study by Shakya et al., 20% of elementary school students in Eastern Nepal had skin illness. The most common skin conditions were impetigo (11%) eczema (10.5%), scabies (14%), tinea (19.5%), and pediculosis (21%) [15]. A study carried out in Nagpur by Charuhas et al. discovered that 236 (32.1%) schoolchildren had different skin conditions. Pyoderma affected 155 people (21.1%), scabies affected 41 people (5.6%), and pediculosis capitis affected 26 people (3.5%) [16]. A study by Rotti SB et al., found parasitic infections in 8% of the school children [17]. A study by Yahya A on 338 subjects found 35 types of specific skin disorders. Infections and infestations (47%) were common skin disorders, followed by inflammatory skin disorders (36.9%). Tinea capitis and atopic eczema were common skin conditions found in 15.5% and 13% of subjects respectively [18]. In order to educate youngsters about the need of personal hygiene and perform thorough clinical exams, future research should concentrate on cataloguing the skin illnesses found during examinations.

Conclusion

Infectious diseases are rampant due to the children's lack of personal hygiene and the overcrowding in the classrooms. With the help of health education and practicing good personal hygiene, the health status of school-aged children may undoubtedly be improved. Educating educators and families about the most common skin illnesses and how to prevent them should be a priority for school-based health activities.

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