

# Prevalence Of Skin Disorders In School Children

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## Abstract

**Background-** Skin diseases are associated with environmental factors, and a public health approach is particularly important. The present study was conducted to determine the prevalence of skin disorder, to analyze the age and sex distribution and to deworm the cases which had Pityriasis alba.

**Methods-** A cross sectional study was conducted in 988 children of a higher primary school for 3 weeks duration in Kalkunte Agrahara which is the field practice area of Dept. of Community Medicine, Vydehi institute of medical sciences and research centre, Bangalore. Students were clinically examined for the presence of skin disorders and details noted down in pre-tested structured questionnaires individually. Results

-In this study, among 988 children, 24 skin disorders were prevalent. Pityriasis Alba was the most common skin disorder accounting for 46.76%, followed by others like Keratosis Pilaris (13.03%), Seborrhea (10.92%), Ichthyosis (8.09%), Acne (5.2%), Pediculosis (3.35%) and Impetigo (4.14%). In all ages pityriasis alba was the most common followed by keratosis pilaris. Impetigo was found among all but in more in higher primary. Seborrhea and pediculosis was seen more in higher primary. Folliculitis was seen more among lower primary. **Conclusion-** Health education among school children to be made as a curriculum and deworming of all school children to be taken as a regular health care scheme.

## INTRODUCTION

The skin is of major importance in our body image so that the psychological disturbances induced by skin problems may be out of all proportions to their medical significance. Skin disorders are among the most frequent diseases of school children in both developing and industrialized countries. In addition, skin diseases not only cause depression by psychological stress, stress from another cause can exacerbate or even be involved in causation of some skin diseases. Very often, skin diseases offer diagnostic clues to major systemic disorders. Many skin diseases ex: Ance vulgaris, Psoriasis, Pityriasis Alba etc can be quickly diagnosed by their clinical features and need little or no further investigations. Management of infinite variety of skin disorders range from simple reassurance and explanation through the gamut of tropical and systemic remedies. Skin diseases are associated with environmental factors and a public health approach is particularly important. Keeping all these points in view, the present study was conducted to determine the prevalence of skin disorders, to analyze the age and sex distribution and to deworm the cases which had Pityriasis Alba.

## MATERIAL AND METHODS

A cross sectional study was conducted in a school for 3 weeks duration in Kalkunte Agrahara which is the field practice area of Dept. of Community Medicine, VIMS&RC, Bangalore. 988 school children aged 5 to 15yrs from 1<sup>st</sup> to 10<sup>th</sup> std. were examined in Sri Ranganatha Higher Primary School. The study included 496 (50.20%) girls and 492 (49.70 %) boys. After obtaining relevant bio-data, students were clinically examined for the presence of skin disorders and details noted down in pre-tested structured questionnaires individually. Informed consent was taken from the school authorities. Sample size was taken to be the entire school population. Specific treatment was given to few cases and few were referred to Vydehi Hospital for further management.

## RESULTS

In this study which included 988 students, few had more than one disorders, few had one, and few had none. Among all the school children, 24 skin disorders were prevalent. (Table No.1)

**Figure 1**

Table No. 1-Prevalence of Skin Disorders

S No.	Disorders	Total No.	Percentage
1.	Acne vulgaris	79	5.2
2.	Atopic Dermatitis	03	0.19
3.	Alopecia Areata	00	0
4.	Albinism	01	0.06
5.	Café-au-lait-macules	05	0.33
6.	Folliculitis	05	.33
7.	Ichthyosis	123	8.09
8.	Impetigo	63	4.14
9.	Herpes simplex	00	0
10.	Keloid	02	0.13
11.	Keratosis pilaris	198	13.03
12.	Milia	38	2.5
13.	Molluscum contagiosum	03	0.19
14.	Neavi	34	2.23
15.	Pityriasis alba	710	46.74
16.	Pediculosis	51	3.35
17.	Psoriasis	03	0.19
18.	Photo dermatitis	02	0.13
19.	Scabies	08	0.52
20.	Seborrhoea	166	10.92
21.	Tinea capitis	02	0.13
22.	Tinea Corporis	03	0.19
23.	Tinea Versicolor	08	0.52
24.	Vitiligo	08	0.52
25.	Urticaria	00	0
26.	Warts	04	0.26

In the present study ,Pityriasis Alba was the most common skin disorder accounting for 46.76% followed by others like Keratosis Pilaris (13.03%), Seborrhea (10.92%), Ichthyosis(8.09%),Acne (5.2%), Pediculosis (3.35%) and Impetigo (4.14%).

**Figure 2**

Table No.2 - Age Wise Distribution of Disorders

S. No	Disorders	5-9 yrs (Lower Primary) No. & %	10-12 yrs (Primary) No. & %	13-15 yrs (High School) No. & %
1.	Acne vulgaris	00	05(2.2)	74(7.7)
2.	Atopic Dermatitis	02 (0.8)	00	01(0.1)
3.	Alopecia Areata	00	00	00
4.	Albinism	00	00	01(0.1)
5.	Café-au-lait-macules	02 (0.8)	00	03(0.3)
6.	Folliculitis	05 (2.0)	00	00
7.	Ichthyosis	34(14.22)	20(8.8)	69(7.2)
8.	Impetigo	10(4.1)	12(5.3)	41(4.2)
9.	Herpes simplex	00	00	00
10.	Keloid	00	01(0.4)	01(0.1)
11.	Keratosis pilaris	39(16.31)	45(20.0)	114(11.9)
12.	Milia	01(0.14)	00	37(3.8)
13.	Molluscum contagiosum	00	01(0.4)	02(0.2)
14.	Neavi	06(2.5)	09(4.0)	19(1.9)
15.	Pityriasis alba	110(46.0)	96(42.6)	504(52.7)
16.	Pediculosis	04(1.6)	10(4.4)	37(3.8)
17.	Psoriasis	01(0.4)	02(0.8)	00
18.	Photo dermatitis	00	00	02(0.2)
19.	Scabies	06(2.5)	00	02(0.2)
20.	Seborrhoea	11(4.6)	20(8.8)	35(3.6)
21.	Tinea capitis	00	01(0.4)	01(0.1)
22.	Tinea Corporis	00	01(0.4)	02(0.2)
23.	Tinea Versicolor	00	01(0.4)	07(0.7)
24.	Vitiligo	00	00	00
25.	Urticaria	07(2.9)	01(0.4)	00

Age Wise Distribution Of Disorders ( Table No. 2) reveals that

In lower primary (5-9yer)- Pityriasis Alba(46%)was found to be more followed by Keratosis Pilaris(16.31% ), Ichthyosis( 14.22 % ) , .

In higher primary (10-12yer) – Pityriasis Alba( 42.6% ) was more followed by Keratosis Pilaris( 20%), Ichthyosis( 8.8 % ) .

In high school (13-15yrs)-Pityriasis alba( 52.7%) was more followed by Keratosis Pilaris,(11.9)% Ance( 7.7% ) , Ichthyosis,( 7.2 % ) .

Ichthyosis was found to be more among lower primary and higher primary students. Impetigo was found among all but in more in higher primary students. Seborrhea and pediculosis was seen more in higher primary students. Folliculitis was seen more among lower primary students. Acne and millia was seen more among high school students and not found among lower primary students. Tinea versicolor was seen more in high school students.

**Figure 3**

Table No.3 - Sex Distribution of Disorders

S. No	Disorders	Boys No. & %	Girls No. & %
1	Acne vulgaris	42(5.2)	37(4.6)
2	Atopic Dermatitis	00	03(0.3)
3	Alopecia Areata	00	00
4	Albinism	00	01(0.1)
5	Café-au-Lait-macules	03(0.4)	02(0.2)
6	Folliculitis	00	05(0.6)
7	Lcthyosis	68(9.3)	5(6.9)
8	Lmpetigo	21(2.8)	42(5.2)
9	Herpes simplex	0	00
10	Keloid	01(0.1)	01(0.1)
11	Keratosis pilaris	95(13.1)	103(12.9)
12	Milia	17(2.3)	21(2.6)
13	Molluscum contagiosum	02(0.2)	01(0.1)
14	Naevi	19(2.6)	15(1.8)
15	Pityriasis alba	383(52.8)	327(41.1)
16	Pediculosis	01(0.1)	50(6.2)
17	Psoriasis	01(0.1)	02(0.2)
18	Photo dermatitis	02(0.2)	00
19	Scabies	05(0.6)	03(0.3)
20	Seborrhoea	52(7.1)	114(14.3)
21	Tinea capitis	01(0.1)	01(0.1)
22	Tinea Corporis	01(0.1)	02(0.2)
23	Tinea Versicolor	06(0.8)	02(0.2)
24	Vitiligo	02(0.2)	06(0.7)
25	Urticaria	00	00
26	Warts	03(0.4)	01(0.1)

Sex Wise Distribution Of Diseases (Table No. 3) reveals that Pityriasis alba(52.8%) Ance(5.7%) , Tinea versicolor(0.8%) , Scabies(0.6 % ) , Naevi (2.6 %)are more among boys. Seborrhea(14.3% ) , Pediculosis (6.2 %), was seen more among girls.

## DISCUSSION

The study included 988 students and 24 disorders were prevalent among the students. The present study revealed that Pityriasis Alba was the most common skin disorder accounting fo 46.76% . However the study conducted in Turkey( 1) revealed Acne to be the most common disorder(12.4%).This could be because they took hospital based patient registry records for data collection and adolescents constituted the largest group in this study. Similarly, a study in Varanasi also revealed Pediculosis Capitis to be the most common disorder(35%)followed by Pityriasis Alba(12%)(2)

Our study revealed Pityriasis Alba to be the most prevalent in all age groups (followed by Keratosis Pilaris). The study also revealed Acne cases to be more in high school and Pediculosis cases to be more in higher primary. These findings correspond to study conducted in Jordan(3) where

Acne Vulgaris peak prevalence was seen at 14 yr and above and even Pediculosis prevalence increased with age to peak at 9 yrs of age and declined at 14 yrs and over.

In the present study, Pityriasis alba (52.8%) Ance( 5.7% ) , Tinea versicolor (0.8%) , Scabies(0.6 % ) , Naevi (2.6 %)are more among boys. In a study conducted at Roman school children (4), male predominance for Pityriasis Alba was seen( P=0.007) .In our study ,Seborrhea(14.3% ) , Pediculosis (6.2 %), was seen more among girls. This correlates with findings at Turkey(5),where Pediculosis Capitis and Dandruff were seen more commonly in girls and even Acne was seen more commonly in girls.

## CONCLUSIONS

Conditions seen vary enormously in severity, which may be disfiguring, itching or painful but rarely fatal. Management of these infinite variety of skin disorders range from simple reassurance and explanation through the gamut of tropical and systemic remedies . All the Pityriasis Alba cases were dewormed with tab Albendazole 400 mg. Most of the cases like Pityriasis alba, Seborrhea, Pediculosis are easily preventable by health education about hygienic conditions like wearing slippers, bathing regularly, adequate nutrition, etc. Most of the cases were to be dewormed to prevent further complications of anaemia. Hence health education among school children should be made as a curriculum and deworming of all school children to be taken as a regular health care scheme.

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