



SKIN DISEASES; PREVALENCE IN PEDIATRIC PATIENTS IN HYDERABAD: SINDH, PAKISTAN.

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INTRODUCTION

Skin diseases in children have not been studied well in Pakistan while many countries of the world has emphasized well on this issue. These include atopic dermatitis, Pityriasis capita, Scabies, mycosis, Seborrheic dermatitis. Atopic dermatitis affects 60% of infants from 4-12months usually 50% of them recover by 18 months and 25% present below the age of 5years while children from 2-12years are also affected. Common presentation is with rash on the face, neck and extensor aspects of the extremities. Pityriasis capita is a focal or diffuse form of seborrheic dermatitis characterized by scaly and crusting lesion on scalp but may involve the whole body including face, axillae and diaper area. Candidial infection also results in dermatitis in diaper area with papular and vesiculopustular appearance along with sharply demarcated edges and satellite lesions adjacent to primary

ABSTRACT... Background: Skin gives beauty and protection to the body of all living animal especially to human being. It is continuously exposed to a number of pathogens and other risk factors resulting into a variety of diseases. Children are affected by different dermatological problems that need to be addressed and managed early to avoid further complications. **Material and Methods:** 518 Children of both sexes with age range from 1months to 11 years suffering from any kind of skin disease were randomly selected after taking consent from the parents. **Study Design:** It was an observational study. **Study Settings:** This study was conducted in department of Pediatrics OPD Liaquat University of Medical and Health Sciences. **Study Duration:** Study duration was 6months from March 2012 August 2012. **Sampling Technique:** Probability Sampling (Simple Random Sampling) was used to select the study samples. **Statistical Analysis:** Descriptive statistical technique used to show frequency and percentage of the data. Mean and standard of numerical variables were calculated was calculated for qualitative variables. SPSS 22 was used to analyze the data. **Results:** 57% of the study population was male children and 43% were female showing high prevalence of skin diseases in male as compared to females. Scabies was found to be most common in both groups (32.43%) followed by Folliculitis (13.13%), Impetigo (11.39%) and Tenia Capitus (8.69%) mean age of our study patient was 5 years. **Conclusion:** Skin diseases are more prevalent in Female children as compared to male children.

Key words: Atopic Dermatitis, Pityriasis Capita, Acne, Candidiasis.

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focus.¹ Dermatological diseases are frequent and common in children. Diseases like acne and alopecia areata although not very serious problems but disturbing and distressing for children. Some chronic dermatological diseases e.g psoriasis, atopic dermatitis, and vitiligo have significant psychological impact due to disease progression and complications in addition to therapeutic measures safety are of great concern.² Some dermatological diseases are frequently associated with the variations of seasons. Acne vulgaris, contact dermatitis, atopic dermatitis, psoriasis, alopecia areata and xerosis are mostly observed in winter season. On the other hand insect bites, eczema, vitiligo, impetigo and tinea corporis show more association with summer.³ The exact epidemiologic figures prevalence or incidence of skin diseases in the general population are still lacking however different hospital-based studies show the skin diseases need more attention.

21% of the patients consulting the GPs in UK present with dermatological problems. 235/1000 children with age range 0–17 years visited the health care providers in 2001 in Netherlands and most of them were bacterial, fungal, viral, eczematous and traumatic skin diseases. 6300 pediatric patients were reported in Turkey to visit the dermatological clinics with age range 0–16 years.⁴ WHO reported a mortality rate of 20000 in year 2001 due to dermatological diseases in Sub-Saharan Africa that was comparable to mortality rates associated with other diseases in the region including hepatitis, meningitis and rheumatic heart diseases.⁵ The WHO (World Health Organization) is continuously focusing and stressing to overcome the burden of the neglected tropical diseases (NTDs). Elimination of onchocerciasis is one of those goals of WHO to free the African countries by 2020 from this condition.⁶ Skin diseases involve all age population but more common in youngers, morbidities associated with them further makes them more important public health problem associated with infections and water inadequacy and overcrowding.⁷ Studies of the pediatric population, which constitutes the cornerstone of the community, can play an important role in determining the policies of protective medicine and public health. New studies will help us to better understand the frequency of dermatological diseases in the pediatric population according to age, gender and season, and take precautions with regard to these conditions.³ Current study was aimed to find out the prevalence of various types of skin diseases in children twenty common diseases namely Scabies, Folliculitis, Impetigo, Tenia Capitis, Contact Dermatitis, Atopic Dermatitis, Seborrheic Dermatitis, Intertrigo, Miliaria Rubra, Tenia Pedia, Urticaria, Tenia Face, Frunculosis, Candidiasis, Molluscum, Acne, Vitiligo, Herpes Zooster, Hypopigmentation and Warts were selected for the current study.

METHODOLOGY

The current study was conducted in the Liaquat University of Medical and Health Science hospital OPD. Informed and written consent was obtained on profarma from the parents of the study

children. Children suffering from dermatological problem in the age range of 1month-11 years were included in our study while children below 1month and above 11 years were excluded from the study. Children with mal absorption and skin manifestations of other systemic diseases were not included as well. Dermatological diagnosis was made by the consultant dermatologist involved.

Children selection

Children were examined thoroughly through general physical examination after taking a thorough history regarding bio data (name age sex), the presenting complain, past history any significant sickness family history.

Ethical Approval

Prior approval was obtained from LUMHS Hospital ethical review committee to conduct this observational research study.

Statistical Analysis

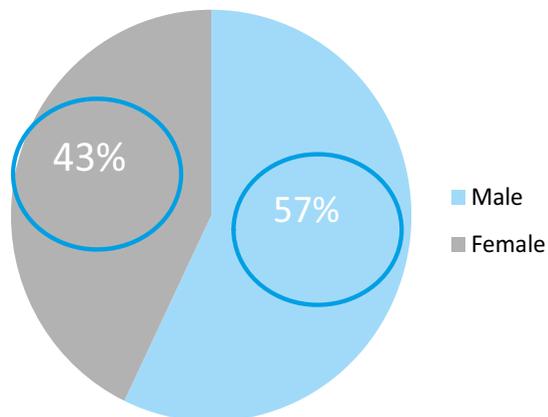
Data was analyzed on SPSS version 22 to determine the frequency of various skin diseases in children of both genders. Mean and standard deviation was measured for age in both groups.

RESULTS

Total 518 pediatric were observed in the current study 296 (57%) were male and 222(43%) were females. Mean age in male subjects was found to be 6.9 ± 1.5 years while it was 5.5 ± 1.3 years in females. Majority of the patients were above 5years 290(55.98%) while 211(40.73%) were above the age of 1year and only 17(3.29%) were below 1year. Scabies was the most prevalent disease in our study accounting (168)32.43% subjects, Folliculitis was 2nd with 68(13.13%) patients and Impetigo was 3rd having 59(11.39%) children. Tenia Capitus was declared 4th with 45 (8.69%) prevalence while none of the other diseases was found above 5% and were as Intertrigo 4.25%, Contact Dermatitis 3.86%, Atopic Dermatitis 3.67%, Miliaria Rubra 3.09%, Seborrheic Dermatitis 2.90%, Frunculosis 2.72%, Urticaria 2.51%.

Age Range Categories	Frequency	Percentage
0-1 Year	17	3.29%
2-5 Years	211	40.73%
6-11 Years	290	55.98%

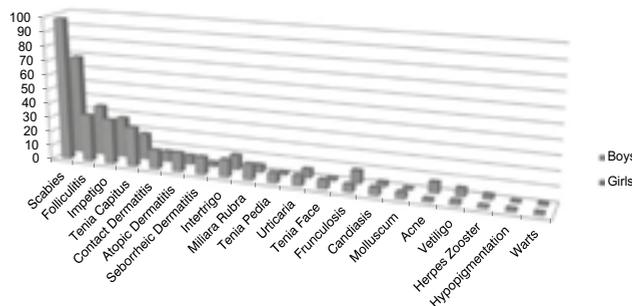
Gender distribution



Graphical presentation of Demographic Parameters of study subjects

Sr. No.	Diseases	Male	Female	Percentage
1	Scabies	99	69	32.43%
2	Folliculitis	33	35	13.13%
3	Impetigo	31	28	11.39%
4	Tenia Capitus	27	18	8.69%
5	Contact Dermatitis	13	07	3.86%
6	Atopic Dermatitis	13	06	3.67%
7	Seborrheic Dermatitis	12	03	2.90%
8	Intertrigo	12	10	4.25%
9	Miliara Rubra	11	05	3.09%
10	Tenia Pedia	07	02	1.74%
11	Urticaria	07	06	2.51%
12	Tenia Face	06	02	1.54%
13	Frunculosis	05	09	2.72%
14	Candidiasis	05	03	1.54%
15	Molluscum	04	01	0.96%
16	Acne	02	07	1.74%
17	Vetiligo	03	05	1.54%
18	Herpes Zooster	02	03	0.96%
19	Hypopigmentation	02	01	0.58%
20	Warts	02	02	0.77%

Prevalence of different dermatological disorders in male and female children



Graphical presentation of male/female distribution the skin diseases

DISCUSSION

Skin diseases are among the most common problems encountered in the society and children are also significantly affected by this disorder. The cause seems to be the increased environmental pollution, poor hygiene, over use of chemicals and increased use of pampers in children. Results of our study are in accordance with the previously published study by Ezz. D et al 2012 who also reported high prevalence of dermatological diseases in female children however his study was on school children with age range of 4-12 years and Pediculosis, Tenia Capitis, Pityriasis alba and Urticaria were found to most prevalent diseases. This contrast maybe due to geographical factors influencing the population as it was a Egypt based study². A Turkey based study by Tamer et al 2008 shows Acne vulgaris stood the most prevalent (12.4%), atopic dermatitis (11.8%), contact dermatitis (11.3%), warts (9.5%), seborrheic dermatitis (4.3%) and impetigo (4.1%) which is in contrast to our findings. The reason may be poor hygienic conditions in our part of land and European living style of the Turkish public. The age group was also different from our study they included all below 16 years.³ A large study conducted by Masutaka F et al 2011 in France over 67448 cases of dermatological diseases in 69 University hospitals concluded Atopic dermatitis, molluscum, impetigo, acne and warts the most prevalent skin problems in children. That was also not in agreement with our results.⁴ Fawzia F. Mostafa et al 2011 reported a different prevalence rate for skin diseases in his Egyptian study. The highest prevalence rate was of impetigo (22%), pediculosis capitis (17.5%),

fungal infections (16.3%), eczema/dermatitis (12.7%), viral infections (11.2%), urticaria (6.1%) again partially consistent to our findings.⁸ Study by Uzma DMR et al 2015 on 100 patients showed prevalence of scabies 2%, Folliculitis 8%, Impetigo 11%, Tinea infection 3% and declared atopic dermatitis 52% the most prevalent skin condition.⁹ Navaid et al 2015 reported scabies to be 18% , atopic dermatitis 2% and seborrhoeic dermatitis 2% in their large size study on 2067 skin patient including the adults that might be a reason of contrast of results.¹⁰ This may be due to the fact their set up was a private hospital and patients might be from a good socioeconomic background while the current study was in a government hospital where most of the patient were from the poor socioeconomic level. Our study was of a small size in comparison to other studies and limited to one hospital that remained a weakness of current study.

CONCLUSION

Skin diseases are very common in children specially Scabies, Folliculitis, Impetigo, Tinea Capitis, Contact Dermatitis, Atopic Dermatitis, Seborrhoeic Dermatitis, Intertrigo, Miliaria Rubra, Tinea Pedis, Urticaria, Tinea Face, Frunculosis and Candidiasis .Skin diseases are more prevalent in male children in comparison to female.

RECOMMENDATIONS

Multicenter Large scale studies are recommended all over Pakistan to find out the exact prevalence of the dermatological diseases in children as well as the adults.

It is recommended to improve the awareness status of our public regarding the cleanliness and various kinds of hygienic measures to help in preventing the skin diseases.

DECLARATION BY AUTHORS

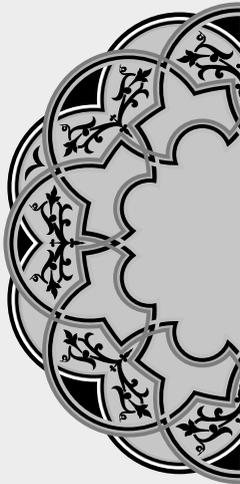
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*“It’s not what you say,
It’s how you say it.”*

Proverb

AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Dr. Imran Ahmed Ghirano	Collection of Data	
2	Prof. Dr. Salma Sheikh	Supervision of Study	
3	Dr. Ashique Ali Arain	Result analysis and article writing	