

## Original Article

### Pattern and Prevalence of Dermatologic Diseases in Pediatric Patients

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Received: 02-06-2014

Revised: 22-07-2014

Accepted: 6-08-2014

#### ABSTRACT:

**Introduction:** Disorders of the skin and its appendages, including the hair and nails, are frequently encountered in children. Despite of their common occurrence, skin diseases receive less attention as compared with diseases, Little information is available about the prevalence of skin conditions among children in the general population of northern India. The patterns of skin diseases have been shown to vary according to environmental and socioeconomic factors. **Aim:** To determine and evaluate the incidence of various skin disorders in pediatric patients both in rural or urban population including different socioeconomic status as well. **Material and method:** It is across-sectional study conducted with a sample size of 350 children upto 5 years of age, reporting with complaints of skin problems to the dermatology outpatient. The diagnoses were categorized into various groups like various infections like bacterial, viral and fungal, eczematous disorders, drug reactions, urticaria, genodermatosis, papulosquamous diseases, pigmentary diseases and tumors. **Results:** Out of total skin lesions studied, population of children having dermatosis due to bacterial infections were 74 (21.1%), due to viral infections was 112 (32%) and due to fungal infections was 28 (8%). other categories like eczematous dermatitis, affected 82 (23.42%) of the study population, pigmentary disorders 16 (4.5%), genodermatosis 4(1.1%), drug reactions 3(0.8%), bite reactions 2 (0.5%), tumors 2 (0.5%) and others were 27 (7.7%) of the population respectively. **Conclusion:** Thus in conclusion we can say that skin lesions still remain an important concern in children as Low socioeconomic status, malnutrition, overcrowding, and poor standards of hygiene are important factors accounting for the distribution of skin diseases in developing countries such as India. More such studies should be conducted with a larger sample size to know the true spectrum of the diseases in the particular community.

**Key words:** Cutaneous disorders, dermatologic diseases, pigmented lesions.

This article can be cited as: Pal T. Pattern and Prevalence of Dermatologic Diseases in Pediatric Patients. J Adv Med Dent Scie Res 2014;2(3):209-212.

#### INTRODUCTION:

Disorders of the skin and its appendages, including the hair and nails, are frequently encountered in children. Despite of their common occurrence, skin diseases receive less attention as compared with diseases such as malaria, pneumonia and HIV/AIDS, which cause significant mortality. It is estimated that 20% to 30% of pediatric patients are found to have primary or secondary skin problems when they visit their primary care doctors.<sup>1</sup> Therefore, recognition and management of the many common cutaneous disorders are of critical importance in pediatric and family care practices.

Little information is available about the prevalence of skin conditions among children in the general population of northern India. It has been reported in one of the studies conducted, that the overall point prevalence of one or more identifiable skin conditions in indian school children was 38.8%.<sup>2</sup> Low socioeconomic status, malnutrition, overcrowding, and poor standards of hygiene are important factors accounting for the distribution of skin diseases in developing countries such as India

The spectrum of skin diseases differs in different parts of the world. The patterns of skin diseases have been shown to vary according to environmental and socioeconomic factors. Various climatic factors that may determine the incidence of skin diseases are cold, heat, light, sunshine and humidity.<sup>3</sup> Also, different degrees of exposure to external factors as well as different levels of functional development of skin may give rise to differential prevalence of dermatoses among infants, toddlers and children.<sup>4</sup>

Therefore, the present study was determine and evaluate the incidence of various skin disorders in pediatric patients both in rural or urban areas including different socioeconomic status as well.

#### MATERIAL AND METHODS:

This is a cross-sectional study conducted with a sample size of 350 children upto 5 years of age, reporting with complaints of skin problems to the dermatology outpatient. Informed consent was taken from the parents and required ethical clearance was taken from the institutional ethical committee before the commencement of this study.

The diagnoses were categorized into various groups like various infections like bacterial, viral and fungal, eczematous disorders, drug reactions, urticaria, genodermatosis, papulosquamous diseases, pigmentary diseases and tumors. Data obtained was tabulated and means were calculated and analyzed using Chi-square test with p value <0.05 as significant value.

**RESULTS:**

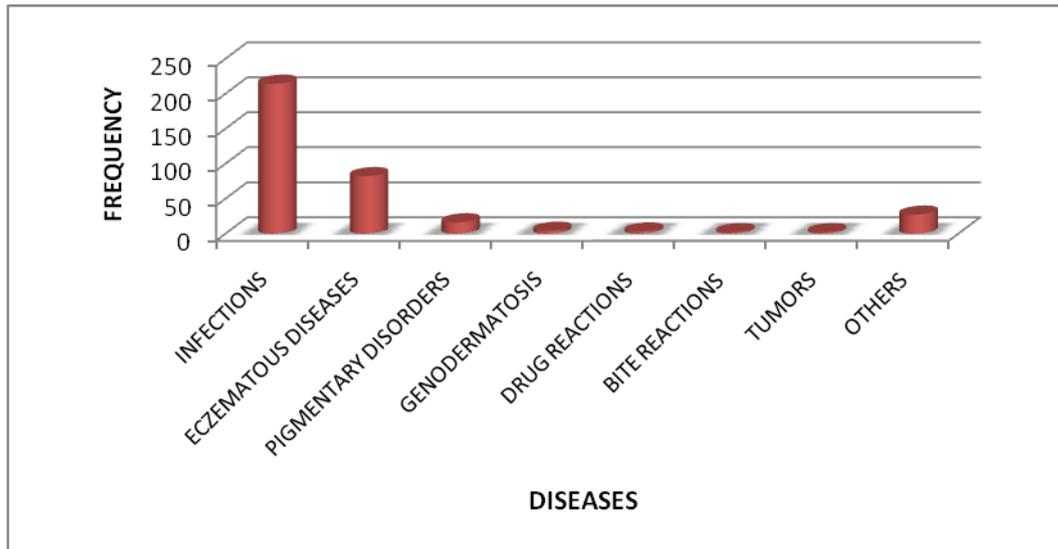
This was a cross-sectional study which included a sample size of 350 children. The median age of the sample studied was 3.8 years. The majority (68 %) of the children resided in urban areas and were of good socioeconomic status. Rest belonged to the rural areas and majority belonged to the socioeconomic status.

Out of total skin lesions studied, population of children having dermatosis due to bacterial infections were 74 (21.1%), due to viral infections was 112 (32%) and due to fungal infections was 28 (8%). This group came out to be the highest in causing dermatitis in children. Subsequently other categories like eczematous dermatitis, affected 82 (23.42%) of the study population, pigmentary disorders 16 (4.5%), genodermatosis 4(1.1%), drug reactions 3(0.8%), bite reactions 2 (0.5%), tumors 2 (0.5%) and others were 27 (7.7%) of the population respectively. (TABLE 1 & GRAPH 1)

**TABLE 1:** Table showing all the observed causes of skin disease with their frequency distribution

DISEASES		FREQUENCY (%)	
<b>INFECTIONS</b>			
<b>1. BACTERIAL</b>		Total: 74 (21.1%)	
	Impetigo	26 (35.1%)	
	Furuncles	20 (27.0%)	
	Folliculitis	18 (24.3%)	
<b>2. VIRAL</b>		Total: 112 (32%)	
	Warts	48(42.8%)	
	HSV	37(33.0%)	
	Varicella zoster	19 (16.9)	
	Measles	8 (7%)	
<b>3. FUNGAL</b>		Scabies	28 (8%)
<b>ECZEMATOUS DERMATITIS</b>		82 (23.42%)	
<b>PIGMENTARY DISORDERS</b>			
		Total: 16 (4.5%)	
	Vitiligo	9(56.2%)	
	Nevi	7(43.7%)	
<b>GENODERMATOSIS</b>			
		Total: 4(1.1%)	
	Xeroderma pigmentosum	1(25%)	
	Neurofibromatosis	1(25%)	
	Albinism	2 (50%)	
<b>DRUG REACTIONS</b>			
		3(0.8%)	
<b>BITE REACTIONS</b>			
		2 (0.5%)	
<b>TUMORS</b>			
		2 (0.5%)	
<b>OTHERS</b>			
		Total: 27 (7.7%)	
	KELOIDS	8(29.6%)	
	MILIA	11(40.7%)	
	ACNE	8 (29.6%)	

**GRAPH 1:** Comparison of frequency of occurrence of the diseases recorded



**DISCUSSION:**

Despite of their common occurrence, skin diseases receive less attention as compared to other diseases. In developing countries like ours Skin diseases are one of the important causes of morbidity in children. Majority of the skin diseases occur in children under the age of 5 years.

In our study it was observed that children from low socioeconomic status presented more cases of dermatitis in comparison with the children from high socioeconomic status.

According to our study it was found that skin infections which included all bacterial viral and fungal, were the most common cause of the skin lesions in children. Such studies have already been done in other developing countries as well and their results are also in accordance to our study.<sup>5,6</sup> This high prevalence could be due to the lower immunity or higher frequency of hospital visits by infants due to greater parental care. Further bite reactions and tumors were found to occur with least frequency as per our study results.

In contrast to our study Sharma RC et al reported that the incidence of parasitic infestations was the highest with scabies as the major infestation.<sup>7</sup> Nanda A et al conducted a survey pediatric patients at dermatology clinic in Kuwait and reported that infants constituted the largest group within the patient population with atopic dermatitis as the most prevalent dermatosis, followed by viral warts, alopecia areata, pityriasis alba, psoriasis and diaper dermatitis.<sup>8</sup> Banerjee S et al reported impetigo, miliaria, scabies, furunculosis, seborrheic dermatitis and papular urticaria as most skin common diseases with scabies and seborrheic during winter while impetigo, furunculosis and miliaria more during summer and rainy season, papular urticaria more frequent in the rainy season and also revealed that seborrheic dermatitis predominantly affected the infants while impetigo, furunculosis, miliaria and papular urticaria were more commoner in older age groups.<sup>9</sup>

Some other studies are documented which were also in contrast and the reason behind that can be attributed to be different socioeconomic status, change in lifestyle of the developed countries in comparison to the developing ones, etc.<sup>10,11</sup>

As we have reviewed the literature it was seen that, little information is available about the prevalence of skin conditions among children in the general population of northern India. Though the findings of our study may not be generalized to a region as a small population has been covered and due to this reason, our results may be in accordance with some authors and also may vary from others studies.

**CONCLUSION:**

Thus in conclusion we can say that skin lesions still remain an important concern in children as Low socioeconomic status, malnutrition, overcrowding, and poor standards of hygiene are important factors accounting for the distribution of skin diseases in developing countries such as India. More such studies should be conducted with a larger sample size to know the true spectrum of the diseases in the particular community.

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**Source of support:** Nil

**Conflict of interest:** None declared

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