

Original Article

Pediatric dermatology: an audit at Hamdard University Hospital, Karachi

Muhammad Javed*, Chandar Jairamani**

* Department of Pediatrics, Hamdard University, Karachi.

** Department of Dermatology, Hamdard University Hospital, Karachi

Abstract *Background* Children up to 15 years of age constitute a major portion of our population and do suffer from a wide variety of skin diseases. Pediatric dermatology is a separate subspecialty by itself hitherto non-existing in Pakistan. The current work focuses on the audit of pediatric dermatological cases presenting in the outpatient department of Dermatology and Pediatrics, Hamdard University Hospital, Karachi, during the calendar year 2005.

Objective To determine frequency of dermatoses amongst children in a hospital in Karachi.

Patients and methods All patients aged below 15 years, belonging to both sexes suffering from dermatological diseases were included in the study. After a detailed history and clinical examination, a clinical diagnosis was made in each case. The patients enrolled were investigated, as well.

Results A total of 830 cases of pediatric dermatology, 539 males (65%) and 291 females (35%) were seen during the calendar year 2005, accounting for 27.2% of all dermatological patients. The age range was 0.1-15 years with a mean age of 8.1 years. Scabies (21.7%) was the most common dermatosis reported followed by atopic eczema (21.4%), fungal infections (15.7%), urticaria (12.1%) and bacterial infections (8.2%). Hair loss (alopecia), pityriasis alba, vitiligo and a few miscellaneous disorders had a comparatively low frequency.

Conclusion Scabies remains the most common pediatric dermatosis followed by fungal infections, atopic eczema, urticaria and bacterial infections.

Key words

Dermatoses, audit, pediatric dermatology

Introduction

Children as well as adults suffer from different dermatological disorders.¹ However, skin disease patterns may vary with geography and temperature.² Karachi, for its hot and humid climate and pollution predisposes to a number of medical

problems among which dermatological diseases have a central place. Therefore, children being a major part of our general population suffer from a wide variety of skin diseases. Epidemiological studies are important to establish the disease patterns.

Pediatric dermatology is an established subspecialty in a number of countries.³ Both pediatricians and dermatologists see a number of pediatric dermatology cases in clinical practice⁴⁻⁶; however, in Pakistan the

Address for correspondence

Dr. Chandar Jairamani,
Consultant Dermatologist,
Hamdard University Hospital,
M.A. Jinnah Road, Karachi.
Email: drjaveddow75@hotmail.com

situation is not so. There are no trained pediatric dermatologists or separate pediatric dermatology departments in many of the teaching hospitals.

The current work focuses on the audit of pediatric dermatological cases and emphasizes the importance of separate pediatric dermatology setups or a training schedule for pediatric trainee postgraduates in dermatology department.

Patients and methods

The current work was conducted in the outpatient departments of Dermatology and Pediatrics, Hamdard University Hospital, Karachi, during the calendar year 2005. All patients aged below 15 years, belonging to both sexes suffering from dermatological diseases were included in the study. After a detailed history and clinical examination, a clinical diagnosis was made. Relevant investigations e.g. hematological and biochemical profile, urine examination, X-ray chest, swabs for culture and sensitivity, scrapings for fungal elements, biopsy and histopathology etc. were done if required. All the findings were recorded, compiled, tabulated and analyzed.

Results

A total of 830 cases of pediatric dermatology were seen during the calendar year 2005, accounting for 27.2% of all dermatological patients. There were 539 males (65%) and 291 females (35%). The age range was 0.1-15 years with a mean age of 8.1 years.

Scabies (21.7%) and atopic dermatitis (21.4%) were the most common dermatoses

Table 1 Common diseases in Pediatric Dermatology clinic (n=830).

Diseases	n (%)
Scabies	180 (21.7)
Atopic eczema	178 (21.4)
Fungal infections	130 (15.7)
Urticaria	100 (12.1)
Bacterial infections	68 (8.2)
Pityriasis alba	51 (6.1)
Hair loss (alopecia)	47 (5.7)
Vitiligo	37 (4.4)
Acrodermatitis enteropathica	30 (3.6)
Others	9 (1.1)

reported followed by fungal infections (15.7%), urticaria (12.1%) and bacterial infections (8.2%) [Table 1]. Hair loss (alopecia), pityriasis alba, vitiligo and a few miscellaneous disorders had a comparatively low frequency.

Among the fungal infections, tinea capitis was the most common (60%), followed by tinea corporis (19%) and tinea faciei (21%). Bacterial infections (9.5%) constituted a major portion of the dermatological audit. Impetigo (58%), furunculosis (26%), folliculitis (9%) and ecthyma (7%) were the pyodermas in descending frequency.

Discussion

All age groups suffer from different dermatological disorders.¹ However, pediatric dermatology cases form a major portion in clinical practice as seen in the present study.⁴⁻⁶

Scabies is a well-known disease of our community. Results of our study revealed scabies (21.7%) to be the most common pediatric dermatosis. High figures of scabies have been reported previously, as well.^{1,7,8}

Poor hygiene, overcrowded living and lack of health education may account for the high frequency of scabies.

Atopic eczema with a frequency of (21.4%) was the next common dermatosis. Ahmed *et al.*⁹ reported atopic dermatitis to be the most common dermatitis in their study of childhood eczemas. Muzaffar and Hussain¹ also reported a significant frequency of atopic dermatitis in children. Similarly, a study from Singapore reported atopic dermatitis to be the most common type of eczema in children.¹⁰

Fungal infections (15.7%) were third in frequency, the hot and humid climate of Karachi being a well-known predisposition.¹¹ Tinea capitis was the most common one seen in 60%, followed by tinea faciei (21%) and tinea corporis (19%). The high frequency of tinea capitis is in agreement with the past studies.^{1,12} Tinea faciei (21%) and tinea corporis have also been reported to be common among children in our part of the world.¹² However, other fungal infections like candidiasis and tinea versicolor were not seen in contrast to the earlier reports.¹²

Bacterial infections (8.2%) constituted a major portion of the dermatological audit. Impetigo (58%), furunculosis (26%), folliculitis (9%) and ecthyma (7%) were the pyodermas in descending frequency. Muzaffar and Hussain¹ also reported bacterial infections to be common pediatric dermatoses. Similar high figures have been a feature of pediatric dermatological audits in third world countries.^{5,7,8} Poor hygiene, overcrowded living, physical contact, itchy

skin conditions and lack of health education are responsible. bacterial infections.

Urticaria (12.1%) also had a major share of these dermatological cases. Epidemiology of childhood urticaria is not fully known. However, it has been reported in children previously.^{1,14}

Pityriasis alba, well known to be one of the most common types of childhood eczema had a frequency of 8.4%. Muzaffar *et al.*¹⁵ reported pityriasis alba in 17.5% of their patients. Ahmed *et al.*⁹ also noted a high frequency of pityriasis alba. The disease has a rising trend with age from infancy onwards due to exposure to wind, sun and detergents, as all these factors are important in the pathogenesis of the disease.¹⁵

Hair loss (alopecia) had a frequency of 5.7%; alopecia areata being the major cause followed by trichotillomania. Alopecia areata has been reported to be a common disease in children.^{16,17}

Vitiligo had a frequency of 4.4%. The earlier age of onset of vitiligo has already been well known.^{18,19}

Aacrodermatitis enteropathica (zinc deficiency) had a high frequency of 3.6%. Although the frequency is high but it could be a chance finding.

Among miscellaneous disorders (1.1%), nevi, genodermatoses, freckles, lentiginos, drug eruptions and bullous eruptions were observed.

Conclusion

Scabies remains the common pediatric dermatosis followed by atopic eczema, fungal infections, urticaria and bacterial infections. Hair loss (alopecia), pityriasis alba, vitiligo and a few miscellaneous disorders have a comparatively low frequency. Pediatric dermatology deserves to be treated as separate subspecialty requiring proper training.

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