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Original Article

The pattern of skin and venereal disorders among patients attending in the OPD of dermatology and venereology department of a tertiary care private hospital, Dhaka, Bangladesh

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Abstract

Objective To assess the pattern of skin and venereal diseases in patients attending a tertiary care hospital in Dhaka, Bangladesh.

Methods It is a descriptive study conducted at dermatology and venereology OPD department in Ibn Sina Medical College Hospital, Dhaka for the period from 1st January, 2015 to 31st December 2015. Six thousand and two hundred and three patients were enrolled during the study period. The study population comprised of newly diagnosed cases as well as relapsing cases presenting in the outpatient irrespective of gender and age. Diagnosis was made on clinical basis. Lab investigations were restricted to the cases where it carried diagnostic importance. The data was collected through pre-designed questionnaire and analyzed through Microsoft SPSS.

Results Study was conducted on 6203 patients comprising 3373 (54.4%) males and 2830 (45.6%) females. Male female ratio was 1.2:1. Age group between 15 to 29 years carried maximum incidence (43.8%). All disorders were broadly classified into noninfective (63.5%), infective (20.2%) and miscellaneous dermatoses (16.2%). Eczema 1721 (27.7%) and fungal infections 694 (11.2%) came out to be the two top most common causes for OPD attendances.

Conclusion Our study found a higher prevalence of non-infective dermatoses than infective dermatoses. Eczema and fungal infections formed the largest group in their respective categories .

Key words
Skin diseases, eczema, infectious dermatoses, noninfectious dermatoses.

Introduction

Skin diseases affect all ages from neonate to elderly. They cause harm in a number of ways and can have profound effect on both individual and community. There can be significant morbidity due to disfigurement, disability, intractable itch and though rare even death may occur from intractable skin disease. The pattern and distribution of skin diseases differ from one country to another country and in various region within the same country.[1] Some factors like genetics, environment, race, religion, occupation, nutrition and habit can influence the pattern of skin diseases.[2] Geographical factors such as season and climate also contribute to the increased prevalence of certain type skin disorders in a particular area. As disease pattern varies in different part of the country, we

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decided to undertake a retrospective analysis of skin and venereal disease pattern observed in Ibn Sina Medical College Hospital, a tertiary care hospital in Dhaka, Bangladesh.

Methods

This study was undertaken in the outpatient department of Dermatology & Venereology, Ibn Sina Medical College, Dhaka. The study population comprised 6203 patients attending the outpatient department during period of 1st January to 31st December, 2015. All newly diagnosed cases, as well as, relapsing cases presenting with skin & venereal diseases, all ages and both sexes, with patient/guardian giving verbal consent for the study, were included in the study. Burns, congenital/ traumatic dermatological problems, acute febrile exanthematous rashes and patients visiting the facility as follow-up for the same skin problem were excluded.

All the cases were subjected to thorough history including name, age sex, address, religion, economic status of the family along with chief complaints, total duration of disease, related past, family and treatment history, complete general, physical, local and systemic (where necessary) examination. Relevant investigations were done where indicated. Data were collected on special proforma and analyzed using Microsoft SPSS.

Results

A total of 6203 (only new patients) patients were included in the study conducted over a period of 1 year, of which 3373 (54.38%) were male and 2830 (45.62%) were females. All disorders were broadly classified into noninfective (63.5%) **(Table 1)**, infective (20.3%), **(Table 2)**, and miscellaneous dermatoses (16.2%).

Table 1 Incidence of non-infective dermatoses (n=3940).

Disease	*N (%)*
Seborrheic dermatitis	333 (5.4)
Acne	371 (6.0)
Urticaria	247 (4.0)
Photodermatitis	33 (0.5)
Drug reactions	41 (0.7)
Psoriasis	69 (1.1)
Lichen planus	43 (0.7)
SLE/DLE	15 (0.2)
Melasma	219 (3.5)
Vitiligo	75 (1.2)
Benign skin growths & skin tags	177 (2.9)
Alopecia	198 (3.1)
Telogen effluvium	107 (1.7)
Androgenic alopecia	51 (0.8)
Alopecia areata	40 (0.6)
Erectile dysfunction & premature ejaculation	383 (6.2)

Table 2 Incidence of infective dermatoses (n=1258).

Disease	*N (%)*
Fungal infections	694 (11.2)
Tinea capitis	15 (0.2)
Tinea corporis	139 (2.2)
Tinea cruris	138 (2.2)
Tinea pedis	48 (0.8)
Onychomycosis	62 (1.0)
Candidiasis	131 (2.1)
Pityriasis versicolor	150 (2.6)
Bacterial infection	221 (3.6)
Furuncle/carbuncle	94 (1.5)
Impetigo	42 (0.7)
Gonorrhea	10 (0.2)
Syphilis	16 (0.3)
Nongonococcal urethritis	55 (0.9)
Viral infection	182 (2.9)
Herpes simplex	21 (0.4)
Varicella	26 (0.4)
Herpes zoster	48 (0.8)
Warts	87 (1.4)
Scabies	166 (2.7)
Mycobacterial infections	5 (0.1)
Cutaneous tuberculosis	
Leprosy	

Most common dermatosis was found to be eczema (27.7%), followed by fungal infections

Table 3 Incidence of skin diseases in different age groups (n=6203).

Age group (Years)	*Males N (%)*	*Females N (%)*	*Total N (%)*
≤14	474 (51.0)	456 (49.0)	930 (15.0)
15-29	1434 (52.2)	1282 (47.8)	2716 (43.8)
30-44	924 (60.9)	593 (39.1)	1517 (24. 5)
45-59	325 (48.7)	343 (51.4)	668 (10.7)
≥ 60	216 (58.1)	156 (41.4)	372 (6.0)
Total	3373 (54.4)	2830 (45.6)	6203 (100)

(11.2%), erectile dysfunction and premature ejaculation (6.2%), acne (6.0%), seborrheic dermatitis (5.4%), urticaria (4.0%), bacterial infection (3. 6%), **(Table 1** and **2)**. Among the non-infective dermatoses, eczema (15.3%), atopic dermatitis (12.4%) and acne (6.0%) constituted top 3 most common dermatoses, whereas fungal infections (11.2%), viral infections (2.9%) and scabies (2.67%) constituted top 3 infectious dermatoses.

Maximum number of patients reported in the age group of 15-29 (43.8%) years followed by 30-44 (24.5%) years. Males out numbered females in all age groups except those between 45-59 years, where females were predominantly involved (**Table 3**).

Discussion

In this study noninfectious dermatoses were more frequent than infectious ones. Most of the earlier studies have reported higher incidence of noninfective dermatoses.[3,5,7,21] Among the noninfectious group eczema (27.7%) was the most common disease followed by atopic dermatitis (12.4%), erectile dysfunction and premature ejaculation (6.2%), acne (6.0%), seborrheic dermatitis (5.4%). Symvoulakis *et al.*[4] in Mediterranean island noted high frequency of eczema compared to our study. Eczema topped the list of dermatoses in other studies.[5-8]

In our study, acne was seen in 6.0% of the enrolled subjects. The frequency of acne in our study was somewhat similar to that in the past studies.[5,9,22-25] Zamanian *et al*.[15], Maryum *et al*.[18], Tamiz-Ud-Din *et al*.[19] and Agarwal[20] have reported frequencies somewhat higher than our study.

The frequency of urticaria (4.0%) in the current study was somewhat similar to that in the past studies.[22-25] On the contrary, Zamanian *et al*.[15], Maryum *et al*.[18], Tamiz-Ud-Din *et al*.[19] and Agarwal[20] have reported frequencies somewhat higher than our study.

Out of all patients with papulosquamous disorders, psoriasis was seen in 1%, while lichen planus in 0.7%. Likewise the frequency of these disorders has also been reported to be around 1% in the past studies.[17,18,22-24] However, Ahmed *et al.*[25] reported higher frequency as compared to the current study, whereas no comparable figures were quoted in the studies mentioned from Iran[15] and Saudi Arabia.[20]

Melasma (3.5%) and vitiligo (1.2%) were the most common pigmentary disorders in this study. Gupta[17] and Ahmed *et al*.[25] have reported a similar frequency for melasma. The frequency of vitiligo around 1% reported in the past studies[17,22-24] is consistent with the current study.

Hair disorders were recorded in 198 (3.1%) patients. Maryum *et al*.[18] have reported the frequency of hair disorders to be 4%, almost similar to our study, where as Ahmed *et al*.[25] have reported the frequency of hair disorders to be 8%, almost twice that recorded in our study.

In the current study, infections had a frequency of 20.2%. This figure was more or less similar to the study by Maryum *et al*.[18] and Tamiz-Ud-Din *et al*.[19] On the other hand, past studies from Karachi,[22,25] Lahore,[23] Bahawalpur,[24] reported a higher frequency as compared to the current study. On the contrary, Devi and Zamzachin,[5] and some other studies[9,17] have reported higher incidence. This difference could be explained by a difference in setting and design of the studies.

Among the infectious group, fungal infection was the commonest (11.2%) form of dermatological presentation followed by viral infections (2.9%), scabies (2.7%) and pyoderma (2.2%). Similar findings were found in studies conducted by Sarkar *et al*.[9], Karanti,[10] Sharma *et al*.[11] and Gupta.[17] This can be attributed to the climatic differences between different geographical areas. Similarly in our study, maximum cases of fungal infections were reported during rainy season, heat and humidity being the important factors contributing to their higher incidence.

Very low incidence of Hansen's disease and cutaneous tuberculosis, similar to most other studies,[5,9,21] can be attributed to the fact that these patients mainly attend either government hospitals or leprosy centers and DOT centers where MDT is distributed free of cost.

In our study age of the patients enrolled varied from birth to 90 years. Age group between 15-29 years (43.8%) were reported to have maximum incidence followed by 30-44 years (24.5%). Age group of 11-30 years was reported to have maximum incidence in a study from Allahabad,[14] while other studies reported maximum incidence in age groups of 20-30 and 30-40 years.[12,13] A study[17] from Haryana showed maximum incidence in the age group of 30-44 years closely followed by 15-29 years.

Males outnumbered females in our study (54.4% vs. 45.6%). some studies have reported male preponderance,[8] while other studies have reported female preponderance.[12,16]

Interestingly we found 383 (6.2%) patients of erectile dysfunction and premature ejaculation in our dermatology OPD. We found no comparative study about this.

Conclusion

Our study found a higher prevalence of noninfective dermatoses than infective skin diseases. Eczema and fungal infections formed the largest group in their respective categories. Since males and young adults were found to be mostly affected and eczema and fungal infections found to be the most common diseases, nature of occupation, living conditions, lack of awareness all contribute to an increasing burden of skin and venereal diseases in the society. Role of public awareness regarding personal and community hygiene and timely reporting of skin and venereal diseases is of great importance for reducing disease burden and improved quality of life.

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