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Original Research Article

The Pattern of Skin and Venereal Diseases among the Patients Attending OPD of Department of Dermatology and Venereology of Rangpur Medical College Hospital, Rangpur, Bangladesh

Md. Razu Ahmed[1*], Md. Khorshed Alam Mondal[2]

[1]Assistant Professor, Dept. of Dermatology & Venereology, Rangpur Medical College, Rangpur, Bangladesh
[2]Senior Consultant (Skin & VD), 250 Bedded Mohammad Ali District Hospital, Bogura, Bangladesh

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***Corresponding author:** Md. Razu Ahmed

Abstract

Background*:** Skin diseases are very much prevalent in the developing countries. It is generally agreed that pattern of skin & venereal diseases differ in different countries and within various regions of a country depending upon social, economic, racial & environmental factor. The morbidity associated with skin and venereal diseases makes them an important public health problem. Very scanty literature is found on the problem which is either disease based, community based or specified population group based. ***Objective: To assess the pattern of skin and venereal diseases in patients attending OPD of department of Dermatology & Venereology Of Rangpur Medical College Hospital, Rangpur, Bangladesh. ***Materials and Methods:*** It is a descriptive study conducted at Dermatology and Venereology OPD in Rangpur Medical College Hospital, Rangpur, Bangladesh for the period from 1st January, 2019 to 31st December 2019. 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. Then they were processed with the help of software SPSS (Statistical Package for Social Sciences) version 19.0 and analyzed. ***Results*:** Study was conducted on 6203 patients comprising 3373 (54.38%) males and 2830 (45.62%) females, who attended skin and VD OPD of Rangpur medical College hospital, Rangpur, Bangladesh during the period of one year. Males were found to be most commonly affected. Male female ratio is 1.2: 1. Age group between 15 to 29 years carried maximum incidence (43.79%). 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 cause 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.

Keywords: Skin diseases; Eczema; Infectious dermatoses; Noninfectious dermatoses.

INTRODUCTION

Skin diseases differ in different countries, and within various regions of a country depending on social, economic, racial and environmental factors. Many patients have reported various patterns of skin diseases in different countries. Skin diseases affect all ages from neonate to elderly. It causes harm in a number of ways and can have profound effect on both individual and community. It can lead to significant morbidity due to disfigurement, disability, intractable itch and though rare even death from intractable skin disease. The pattern & distribution of dermatological diseases differ from one country to another country and in various areas within the same country [1]. Skin diseases can be influenced by so many factors like genetics, environment, race, religion, occupation, nutrition and habit [2]. Geographical factors such as season and climate also contribute to the increased prevalence of certain type skin disorders in a particular area. In developing countries, other than hot and humid climatic condition, low hygiene, poor access to water, overcrowding, high interpersonal contact also play significant etiological role for certain skin diseases like pyoderma, scabies, fungal infection [3]. In developing countries 70% of the people suffer from skin diseases in some part of their life [4]. Many do not have access to basic skin services and even in developed countries 15% of the patients apply home remedies before proper medical services [5]. Many of the skin infections are

endemic in developing countries. However the epidemiology of these diseases is inadequately understood in many areas, particularly in Bangladesh [6]. Different studies have shown different results. However, most of the result from the Indian subcontinent shows similar to the present study result. In developed countries like U.K., Denmark, Egypt, Singapore shows different results. In Indian sub-continent infectious skin diseases are more common than non-infectious diseases even in Ghana [7]. Whereas in Denmark, Egypt and in Singapore dermatoses are more common and in U.K pre malignant and malignant skin diseases are more common [8, 9]. Moreover, there is scarcity of knowledge about common skin diseases which can be very easily treated by general practitioners reducing the burden on specialized centers for management of more complicated skin diseases. In addition there is a need to create awareness among public and primary health care providers to educate people about preventive aspects related to skin diseases so that the burden of disease can be minimized [10, 11]. Therefore this present study was undertaken to evaluate the pattern of skin diseases among the patients attending the OPD of skin and venereal disease pattern observed in Rangpur medical College hospital, Rangpur, Bangladesh.

MATERIALS & METHODS

This study was undertaken in the outpatient Department of Dermatology & Venereology, Rangpur Medical College Hospital, Rangpur, Bangladesh. The study group comprises 6203 patients attending in the outpatient department, Rangpur medical College hospital, Rangpur, Bangladesh, during period of 1st January to 31st December, 2019. All the cases were subjected to thorough history taking 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. Investigations were done where necessary. 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 problem, acute febrile exanthematic rashes and patients visiting the facility as follow up for the same skin problem were excluded. Data were collected through direct interview of the patients at the respective departments by the researcher and competent colleagues. Collected data was checked and edited first. Then they were processed with the help of software SPSS (Statistical Package for Social Sciences) version 19.0 and analyzed.

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%), and miscellaneous dermatoses (16.2%) (Table-2). Disease related incidence has been given in (Table 1 & 2). Most common diseases were found to be eczema (27.7%), followed by fungal infections (11.2%), erectile dysfunction & premature ejaculation (6.2%), acne (5.98%), seborrheic dermatitis (5.36%), urticaria (3.98%), bacterial infection (3.56%) (Table 1 & 2). Among the non-infective dermatoses, eczema (27.7%), and acne (5.98%) and seborrheic dermatitis (5.36%) 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 (43.78%) years followed by 30-44 (24.45%) years. Males out numbered females in all age groups except those between 45-59 years, where females were predominantly involved.

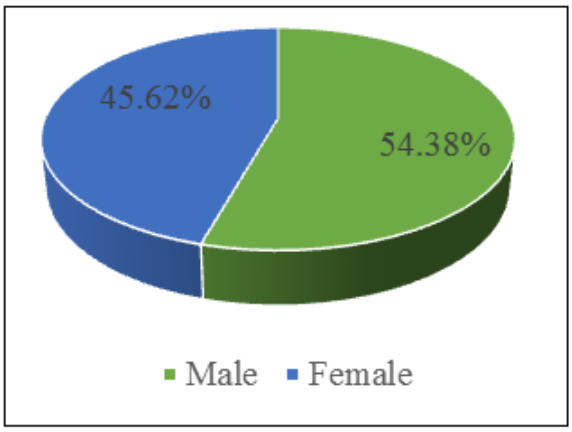

Fig-1: Sex distribution of patients

Table-1: Incidence of non-infective dermatoses

Disease	Number of patients	Percentage
Eczema	1721	27.7
Seborrheic dermatitis	333	5.36
Acne	371	5.98
Urticaria	247	3.98
Photodermatitis	33	0.53
Drug reaction	41	0.66
Psoriasis	69	1.11
Lichen planus	43	0.7
SLE/DLE	15	0.24
Melasma	219	3.5
Vitiligo	75	1.2
Benign skin growths & skin tags	177	2.85
Alopecia	198	3.14
Erectile dysfunction & premature ejaculation	383	6.2
Total	3940	63.5

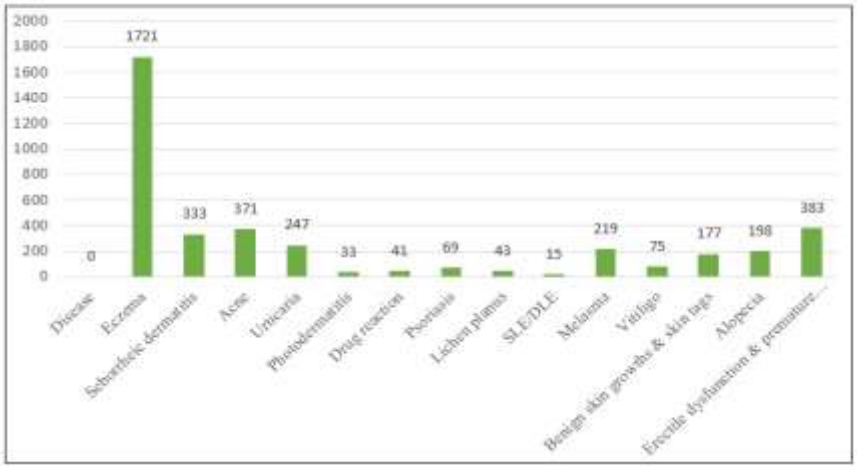

Fig-2: Incidence of non-infective dermatoses

Table-2: Incidence of infective dermatoses

Disease		Number of patients	Percentage
Fungal infections		694	11.2
a.	Tinea capitis	15	0.24
b.	Tinea corporis	139	2.2
c.	Tinea cruris	138	2.2
d.	Tinea pedis	48	0.77
e.	Onychomycosis	62	0.99
f.	Candidiasis	131	2.11
g.	Pityriasis versicolor	150	2.6
Bacterial infection		221	3.56
a.	Furuncle/carbuncle	94	1.5
b.	Impetigo	42	0.67
c.	Gonorrhea	10	0.16
d.	Syphilis	16	0.25
e.	Nongonococcal urethritis	55	0.89
Viral infection		182	2.9
a.	Herpes simplex	21	0.34
b.	Varicella	26	0.42
c.	Herpes zoster	48	0.77
d.	Warts	87	1.4
Scabies		166	2.67
Cutaneous tuberculosis		2	0.03
Hansen's disease		3	0.04
Total		1258	20.3
Miscellaneous (including both infective and non-infective dermatoses)		1005	16.2
Total		2263	36.5

Table-3: Incidence in different age groups

Age Group(Years)	Number Of Males (%)		Number Of Females (%)		Total Number Of Patients (%)	
≤ 14	474	(50.96)	456	(49.03)	930	(14.99)
15-29	1434	(52.20)	1282	(47.80)	2716	(43.78)
30-44	924	(60.90)	593	(39.09)	1517	(24.45)
45-59	325	(48.65)	343	(51.35)	668	(10.76)
≥ 60	216	(58.06)	156	(41.94)	372	(05.99)
Total	3373	(54.38)	2830	(45.62)	6203	(100)

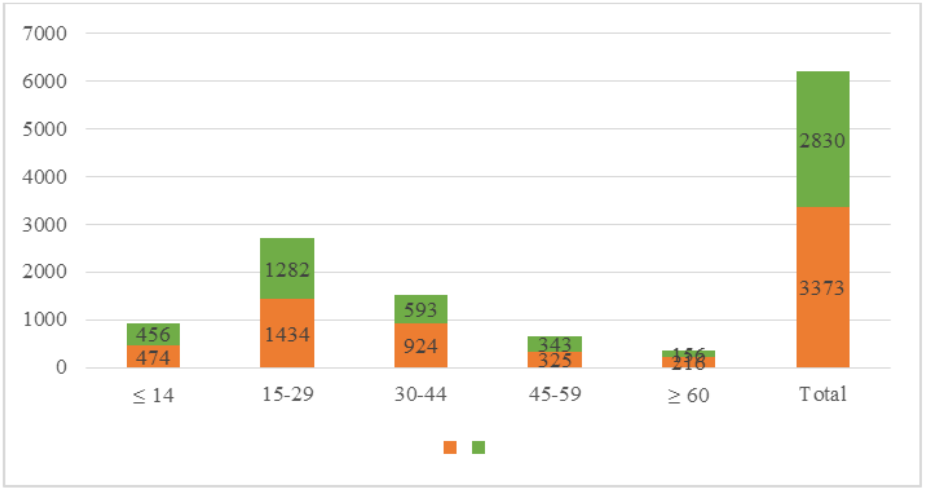

Fig-3: Incidence in different age groups patients

DISCUSSION

In this study non infectious patients were more than infectious patient. Most of the earlier studies have reported higher incidence of non-infective dermatoses [12, 14, 16, 30]. Among the non infectious group eczema (27.7%) is the most common followed by erectile dysfunction & premature ejaculation (6.2%), acne (5.98%), seborrheic dermatitis (5.36%). Emmanouil K S & others [13]. in Mediteranean island found frequency of eczema comparative to our study. Moreover eczema topped the list of dermatoses in other studies [14-17]. In our study, acne was seen in 5.98% of the enrolled subjects. The frequency of acne in our study is somewhat similar to that in the past studies [14, 19, 30-34]. Maryum H *et al*., [27], Zamanian *et al.*, [24] Tamizz Uddin *et al*., [28] and Agarwal *et al*., [29] have reported frequencies somewhat higher than our study. The frequency of urticaria (3.98%) in the current study is somewhat similar to that in the past studies [31-34]. On the contrary, Maryum H *et al.*, [27], Zamanian *et al*., [24] Tamizz Uddin *et al*., [28] and Agarwal *et al*., [29] have reported frequencies somewhat higher than our study. Out of all patients with papulosquamous disorder, 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% or in the past studies [27, 28, 32-35]. However Ahmed *et al.*, [34] have reported higher frequency as compared to the current study. On the contrary no comparable figures were quoted in the studies mentioned from Iran [24], Saudi Arabia [29]. Melasma (3.5%) and vitiligo (1.2%) were the most common pigmentary disorders in this study. Vinita G [26], Ahmed *et al.*, [34] have reported a similar frequency for melasma. The frequency of vitiligo around 1% in the past studies [26, 31-33] is consistent with the current study. Hair disorders were recorded in 198 patients (3.14%). Maryum H *et al.*, [27] have reported the frequency of hair disorders to be 4%, almost similar to our study, whereas Ahmed *et al*., [34] 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%. the frequency of infections was reported to be more or less equivalent in the study by Maryum H *et al.*, [27] and Tamizz Uddin *et al.*, [28] On the other hand past studies from Karachi [31, 34], Lahore [32], Bahawalpur [33], reported a higher a frequency as compared to the current study. On the contrary Devi and Zamzachin [14] and some other studies [18, 26] have reported more higher incidence. This difference could be explained by a differenc in setting and design of the studies. Among the infectious group fungal infection is the commonest (11.2%) form of dermatological presentation followed by viral infections (2.9%), scabies (2.67%) and pyoderma (2.17%). Similar findings were found in studies conducted by Sk Sarker and AKMS Islam [18], Karanti BK [19], Sharma *et al*., [29] and Vinita G [26]. 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

[14, 18, 30], can be attributed to the fact that these patients mainly attend either government hospitals or leprosy centers and DOT centers where MDT are distributed free of cost. In our study age of the patients enrolled varied from birth to 90 years. Age groups between 15-29 years (43.78%) were reported to have maximum incidence followed by 30-44 years (24.45%). 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 [21, 22]. A study [26], 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 (M/F=54.38/45.62). Some studies have reported male preponderance [17], while other studies have reported female preponderance [16, 25]. Interestingly we found 383(6.2%) patients of erectile dysfunction & premature ejaculation in our dermatology & Venereology OPD. In our study we found maximum patients from o to 14 years' age group. So age may be a vital factor in the treatment in several infectious as well as non-infectious skin diseases in this region.

CONCLUSION

We can conclude that young age group is the most vulnerable group for skin related diseases in Bangladesh. 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. 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 & venereal diseases in the society. Government and policy maker should give more attention to this group for being a healthy society with free of skin diseases. Role of public awareness regarding personal and community hygiene and timely reporting of skin & venereal diseases is of great importance for reducing disease burden and improved quality of life.

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