

PATTERN OF SKIN DISEASE OF PATIENTS ATTENDING SKIN & VD OPD IN A PRIVATE MEDICAL COLLEGE HOSPITAL IN CHITTAGONG

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Summary

Skin diseases cause morbidity in major numbers of people around the world. Their pattern of distribution varies on certain factors like age, sex, occupation, genetics, environment etc. The aim of the study was to analyze and found prevalence of different skin diseases in this particular area of the country to provide useful findings. This study was carried out in the outdoor Department of Dermatology and Venereology of Southern Medical College Hospital, a tertiary teaching and referral hospital in Chittagong, Bangladesh from July 2011 to June 2015. There were 1644 patient, of them 637(38.75%) was male and 1007(61.25%) was female. Highest (26.03%) numbers of patient were in the age group of 21-30 years followed by 11-20 years age group (23.73%). Both male and female suffered mostly from same condition: eczematous disease (20.72% & 18.87%) followed by fungal infection(14.9% and 18.57%). Non-infectious skin disease was in 59.18% and infectious skin disease in 40.82%. Among non-infectious and infectious skin disease, eczematous disease and fungal skin disease were commonest, comprising 19.59% and 17.15% of the total patient respectively. Among the eczematous diseases, highest 38.5 % had eczema. Psoriasis comprises highest 48.1% among papulosquamous diseases. Regarding fungal skin diseases, 75.89% had dermatophyte infection and 65.42% were female.

Key words

Age; Sex; Pattern of skin disease.

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Introduction

No single number can describe the burden of skin disease because that burden has many dimensions [1]. Disease pattern of a given population is generally determined by different ecological and other factors [2]. Customs, habits, religious beliefs, languages, climate are not so varied in different parts in this country, but socio-economic conditions and ignorance play vital role for various presentations of dermatological condition [3]. In a subtropical, just landing in a lower middle income economic country like Bangladesh, poverty, illiteracy, lack of awareness, unhygienic condition along with pollutions from of rapid industrialization have their effects increasing the burden of skin diseases [4]. Whatever be the reasons for skin diseases it varies upon age, sex and time [5]. Recognition of cutaneous disorders most prevalent in a region, their symptoms and causes, their proper preventative and treatment methods should be studied by general physicians and dermatologists for better patientsmanagement [6]. The availability of accurate baseline data for planning intervention can only however be based on expert dermatological services provided mainly in tertiary hospital settings where diagnosis of lesions can be confirmed by laboratory support [7]. Bangladesh has a very high prevalence of skin disease, proportion and prevalence of morbidity of all age's data showed that prevalence of skin disease per 1000 population was 4.3 which ranked 9th and its proportion were 2.3% [8]. A number of workers have reported different patterns of skin diseases from different parts of Bangladesh in different times [3,9-12]. Besides those, this study was aimed to explore the pattern of skin disease, discern there demographic distribution and looked for any significant findings.

Materials and methods

This was a cross sectional observational study conducted in the outdoor department of Dermatology and Venereology of Southern Medical College Hospital, a private tertiary teaching and referral hospital in Chittagong. The study period was four years, from June 2011 to June 2015. There were 1644 patients enrolled, excluding the patient followed up for the same problem.

Inclusion criteria

i) Patient with dermatological or venerological complaints ii) Patient of all age group and iii) Patient of any sex.

Exclusion criteria

i) Patient with associated non-dermatological conditions ii) Referred indoor patient iii) Patient enrolled once in this study for the same complaint.

A detailed history was taken from the every single patient, general clinical and dermatological examination and if needed relevant investigations was done. All the data were recorded in a preformed data sheet.

Results

A total number of 1644 patient were studied, among them 637(38.75%) were male and 1007(61.25%) were female yielding a male to female ratio of 1:1.58. Age range was 5 months to 72 years. Highest (26.03%) number of patient were in the age group of 21-30 years followed by 11-20 and 0-10 years age group consisting 23.73% and 23.18% of the patient respectively. The male patient showed highest percentage (27.32%) in 0-10 years age group followed by 21-30 years age group (26.06%). Considering female patient, 21-30 and 11-20 years group consisted of 26.02% and 24.13% of the patient. Both male and female suffered mostly from same disease, 20.72% and 18.87% of male and female from eczematous disease followed by, 14.9% and 18.57% from fungal infection.

Among the studied patients, proportions of non-infectious and infectious disease were 59.18% and 40.82% respectively. Eczematous disease ranks highest (19.59%) among the non-infectious causes followed by urticaria (8.76%). Regarding infectious cause, fungal infections were found in 17.15% followed by scabies, in 11.25%.

Considering eczematous disease, 38.5% of them had eczema and 27.33% had atopic dermatitis. Female suffered more (59.01%) from eczematous disease than male (40.99%). In the papulosquamous disease group psoriasis comprises 48.1% followed by lichen simplex chronicus (27.74%). Among the papulosquamous disease 60.58% were female and 39.42% were male. Melasma was 68.11% among the pigmentary disorder and 87% of them were female.

Regarding fungal infection, 75.89% had dermatophyte infection and 65.42% of them were female. Bacterial infection of the skin was found in 10.09% of the patients.

Other different types of skin disease comprise 9.25% of the total patient. They included bullous diseases, genodermatoses, granuloma annulare, metabolic & nutritional disorders and neoplastic conditions.

Table I : Age and sex wise distribution of skin diseases

Age group (Years)	Male	Female	Total
0-10	174	216	390 (23.73%)
11-20	135	246	381(23.18%)
21-30	166	262	428 (26.03%)
31-40	82	127	209 (12.71%)
41-50	40	96	136 (08.27%)
>50	40	60	100 (06.08%)
Total	637 (38.75%)	1007 (61.25%)	1644 (100%)

Table II : Distribution of skin diseases according to sex

Disease	Male	Female	Total Numbers (%)
Eczema	132	190	322 (19.59)
Papulo-squamous disease	54	83	137 (8.34)
Urticaria	53	91	144 (8.76)
Acne	49	87	136 (8.27)
Pigmentary disorders	10	37	47 (2.86)
Parasitic disease	95	90	185 (11.25)
Bacterial infections	75	91	166 (10.09)
Fungal infections	95	187	282 (17.15)
Viral infections	19	10	29 (1.76)
Drug reaction	4	6	10 (0.61)
Sexually transmitted disease	9	0	9 (0.55)
Psychosexual disorder	25	0	25 (1.52)
Others	17	135	144 (9.25)
Total	637 (38.75)	1007 (61.25)	1644 (100)

Table III : Distribution of Eczematous diseases

	Male	Female	Total
Eczema	47	77	124 (38.51%)
Seborrhic dermatitis	33	26	59 (18.32%)
Contact dermatitis	15	29	44 (13.67%)
Atopic dermatitis	35	54	89 (27.64%)
Pompholyx	02	04	06 (1.86%)
Total	132 (40.99%)	190 (59.01%)	322(100%)

Table IV : Distribution of Papulo-squamous diseases

	Male	Female	Total
Psoriasis	35	32	67 (48.91%)
Lichen planus	07	22	29 (21.17%)
Lichen simplex chronicus	11	27	38 (27.74%)
Ptyriasisrubrapillaris	01	02	03 (2.18%)
Total	54 (39.42%)	83 (60.58%)	137 (100%)

Table V : Distribution of Fungal Diseases

	Male	Female	Total
Dermatophyte	74	140	214 (75.89%)
Teniaversicolor	15	17	32 (11.34%)
Candida	04	20	24 (8.51%)
Onychomycosis	02	10	12 (4.26%)
Total	95 (33.69%)	187 (66.31%)	282 (100%)

Discussion

This study was aimed to discern the spectrum of the patient attending the teaching hospital from its surrounding territory in the Chittagong city.

In the present study, highest numbers (26.03%) of skin disease were found in the age group of 21-30 years (Table I). That was followed by 0-10 and 11-20 years age group with 23.7% and 23.18% of the patient. In Bangladesh Uddinet al previously reported 35.82% of the skin diseased patient from < 18 years age group [3]. This study found 46.88% of the skin disease patient in 0-20 year's age group. The reason behind the high number of patient in the children age group is due to poor nutrition, unhygienic condition which affects the children first. Though the study carried out in a private medical college hospital mostly poor people come to an outdoor of medical college

hospital. Another fact may play a role, that young adolescent girl and boys are more conscious about their beauty and so attended the hospital in higher percentages. On the other hand Antony and Celine found highest number (31.7%) of skin disease patient in 0-15 year's age as well as Karthikeyam et al(30%) [5,13]. Nafiza et al found highest number of patient in 20-30 years age group and their findings is in concordance with our findings [9]. Other studies also reported highest number of patient in adult group, in 16-30 years group by Dayal et al and 21-40 year' group by Symvoulakis et al [14,15].

Considering sex of the patient this study found 61.25% of the affected patients were female (Table I). Female preponderance was also found by Yousuf et al (53.6%) in Bangladesh among their studied population [10]. There was also higher number of female patient in the study of Symvoulakis et al (55.4%), Atraaide et al (60.9%) and Raddai et al (54.06%) [15-17]. This female patient ascendancy in this study may due to the fact that the consultant was a female which may be a provocateur for a conservative society to bring their female patient to a medical consultation.

Non-infectious skin disease is predominant in this study by 59.18% to 40.82% infectious skin disease (Table II). This higher prevalence of non-infectious skin disease is consistent with the findings of Rao et al (57.07%), Nafiza et al (56.6%), Sarker et al (56.71%), and Mehta et al (62%) [2,9,11,18]. Though the study of Uddinet al showed predominant non-infectious skin disease but their percentage was much higher (83.08%) [3]. That finding was asserted by the fact that their place of study was a costly and so had less access to the people of low socioeconomic condition who are more vulnerable to have infectious skin diseases.

In the non-infectious type, the most common skin disease was Eczema (19.59%) of the total number of the patient followed by urticaria (8.76%) and acne (8.26%) (Table II). These findings are in consistent with the reports by Uddin et al (eczema: 23.42% and acne 8.69%), Yousuf et al (Eczema 23.7% and acne 11.9%), Sarkar et al (Eczema 19.2% and urticaria: 6.68%) and Mowla et al (Eczema 17.28% and papulosquamous disease: 11.20%) [3,10,11,12].

Among the studied eczematous diseases 38.51% were eczema, 27.64 % were atopic dermatitis (Table III). Mowla et al found atopic dermatitis in highest number (25.44%) in their eczematous patient group [12]. The difference of this study may be due to the smaller number of sample size. The fact that female mostly (59.01%) suffered from eczematous disease than male (40.99%) found in this study is also supported by Sarkar et al with 56.7% female in this disease group. Nafiza et al found male dominance (68.18%) but their sample size was much lower and the study was conducted in a much stipulated area and time [11,9].

This study found papulosquamous disease in 8.34% of the total patients (Table II), which is near similar to the findings of Mowla et al [12]. Among the papulosquamous disease, psoriasis is predominant with 48.9% (Table IV) of the patient which comprises 4.07% of the total number of patient. This finding is comparable with the findings of Uddin et al (6%), Yousuf et al (3.6%) and Mowla et al (4.99%) [3,10,12].

In this study 8.27% of the total patient presented with acne, of them 36% were male and 64% were female (Table II). In Bangladesh, Yousuf et al, Sarkar et al and Mowla et al found acne in 11.9%, 5.58% and 5.84% respectively of their total number of patient [10-12]. Male presented mostly the severe form of acne but girls come for its cure early and in higher numbers.

Considering infectious and disease due to infestation, this study found fungal infection of the skin as the commonest disease (17.15%) (Table II). Sarkar et al found fungal infection as the highest (17.26%) infective type along with Nafiza et al (22.9%) and Yousuf et al (15.5 %) [9-11]. Though ranked as second as an infective cause in the findings of Mowla et al, their proportion (18.19%) of fungal skin infection is quite comparable with this study [12]. In India Rao et al and Dayal et al also found fungal infection as the top ranked skin disease with 22.92% and 12.8% of their patient [2,14]. Among the fungal infection, superficial dermatophyte comprises the most (75.89%) of the patient in this study. Female are more (66.31%) sufferer than male due to fungal infections (Table V). This may be due to the fact that females are engaged in wet and unhygienic working condition at their home.

Beside in such a warm and humid weather conservative dress code may contribute. Sarkar et al found male preponderance (65.09%) in fungal infection [11]. Again this difference may be contributed by the fact of dermatological consultation by a female dermatologist to whom female were comfortable to discuss about the lesion in their unexposed portion of the body where fungal infection is more common like *teniacuris*.

Among the 185(11.25%) parasitic disease, all of them were scabies. This may be due to rare incidence of other parasitic skin diseases.

The most common type of skin disease in male and female in this study were similar. There were 637 male and 20.72% of them suffered from eczematous disease and 18.87% of the 1007 female suffered so. The second common disease in male and female was fungal infection and the proportions were 14.9% and 18.57%. Antony and Celine found bacterial infection as most common disease in both male and female as they represented 21.2% and 20% of total male and female [5]. Sarkar et al reported most common cases of skin disease in male was scabies(19.7%) and in female was eczema (24.95%) [11].

Conclusion

The present study showed females are most affected by skin diseases. The presence of higher percentages of the young and early adults may indicate their consciousness about their skin. Lower percentage of infective skin diseases in this study may reflect increase awareness about hygiene and health care. There should be numbers of this type of study which may help to understand the scenario of skin disease and take real initiative addressing the skin health problems of the people.

Disclosure

All the authors declared no competing interest.

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