



## PATTERN OF DERMATOLOGICAL DISORDERS IN A HEALTH COMPLEX OF GAZIPUR IN BANGLADESH

**Sohail Mirza\*<sup>1</sup>, Nadia Islam<sup>2</sup>, Md. Mahmudur Rahman Siddiqui<sup>3</sup>, Md. Zakirul Islam<sup>4</sup>, Afrose Ahmed<sup>5</sup> and Ashish Kumar Mazumder<sup>6</sup>**

<sup>1</sup>Assistant Professor, Department of Dermatology and Venereology, Shaheed TajUddin Ahmad Medical College, Gazipur, Dhaka.

<sup>2</sup>Associate Professor, Department of Pharmacology, Anwer Khan Modern Medical College, Dhaka.

<sup>3</sup>Associate Professor, Department of Medicine, Anwer Khan Modern Medical College, Dhaka.

<sup>4</sup>Associate Professor, Department of Pharmacology, Eastern Medical College, Comilla.

<sup>5</sup>Associate Professor, Department of Anatomy, Anwer Khan Modern Medical College, Dhaka.

<sup>6</sup>Associate Professor, Department of Pharmacology, IAHS, USTC, Chittagong.

**\*Corresponding Author: Sohail Mirza**

Assistant Professor, Department of Dermatology and Venereology, Shaheed TajUddin Ahmad Medical College, Gazipur, Dhaka.

Article Received on 03/03/2019

Article Revised on 24/03/2019

Article Accepted on 14/04/2019

### ABSTRACT

Dermatological diseases form an important chunk of disorders in any major hospital. Skin diseases are also influenced by various factors like environment, economy, literacy, racial and social customs. The pattern of skin diseases varies from one country to another country and in various regions within the same country. As the pattern of skin diseases varies in different parts of Bangladesh we decided to undertake a retrospective analysis of the skin disease pattern as observed in Gazipur. We included 3949 consecutive new patients coming to Dermatology and Venereology outpatient department over a period of one year at Kapasia health complex of Gazipur in Bangladesh. Skin diseases were diagnosed on the basis of classical clinical morphology with appropriate investigations. Out of 3949 patients, 2230 were males (56.47%) and 1719(43.53%) were females. Fungal disease was the most common disorder followed by scabies and bacterial infection. Infectious diseases i.e. fungal, bacterial, viral, scabies and STI constituted about 51.83% of the total patients and rests were noninfectious diseases (48.16%). Higher prevalence of infective disorders was seen compared to other studies. Diseases like bacterial, fungal, viral infection, scabies, sexually transmitted infection (STI), psycho sexual disorder (PSD), atopic dermatitis (AD), urticarial, hair diseases were seen significantly more commonly in males while acne, vitiligo, seborrheic dermatitis, melasma, lichen simplex chronicus (LSC) and eczema were seen significantly more common in females.

### INTRODUCTION

Dermatological diseases are common disorders with which patients come in any major hospital. Skin diseases are influenced by various factors like environment, economy, literacy, racial and social customs. The pattern of skin diseases varies from one country to another country and in various regions within the same country.<sup>[1]</sup> It is more so in Bangladesh where climate, socio-economic status, religions and customs are widely varied in different parts of the country. Occasionally skin diseases can be a manifestation of systemic diseases. Dermatological diseases form an important chunk of disorders in any major hospital. Due to lack of awareness, patients may not report for treatment of dermatological disorders unless compelled by the severity of the symptoms. This is especially more important in rural areas.

There are some reports regarding the pattern of skin diseases from various parts of Bangladesh.<sup>[2,3]</sup> So far no such report is available for this region of Gazipur. To fill the lacunae and as the pattern of skin diseases varies in different parts of Bangladesh we decided to undertake a retrospective analysis of the skin disease pattern as observed in Gazipur.

### METHODOLOGY

We included 3949 consecutive new patients coming to Kapasia Health Complex, Gazipur. Over a period of one year, we recorded the patient details in printed proforma. Relevant clinical history was elicited, and a thorough dermatological examination of the patients was performed. Skin diseases were diagnosed on the basis of classical clinical morphology with appropriate investigations as required. Cases with doubtful diagnosis were excluded from the study. After 1 year (July 2015 to

July 2016), we analysed the data using SPSS 15.0 Evaluation version.

## RESULTS

Three thousand nine hundred and forty nine consecutive patients were enlisted in the study; Out of these 2230 were males and 1719 were females.

Table 1 gives the gender wise distribution of the study group. Males presented at higher percentage than females.

Table 2 gives the age wise distribution of the study group. Males presented at higher age than females.

**Table-I: Distribution of patients according to gender.**

Gender of patients	Total patients	Percentage
Male	2230	56.47%
Female	1719	43.53%

**Table-II: Distribution of patients according to age.**

Patients	Mean age (years)
Male	30.61±12.43%
Female	29.42±11.67%

**Table-III: Distribution of disease in study patients.**

Disease	Male	Female	Total
Scabies	385	216	601
Fungal diseases	510	354	864
Bacterial infection	260	166	426
Acne	152	221	373
Eczema, LSC	35	50	85
Hair disease	61	25	86
Vitiligo	12	28	40
STI	35	8	43
Viral infection	61	52	113
Atopic Dermatitis	91	82	173
Seborrhoeic Dermatitis	73	75	148
Psychosexual disorder	103	1	104
Others	127	151	278
Papulosquamous disease	39	32	71
Contact dermatitis	145	141	286
Urticaria	72	50	122
Light eruption	33	29	62
Melasma	12	62	74
	2230	1719	3949

Table-III shows that fungal disease was the most common disorder followed by scabies and bacterial infection. In total infectious diseases i.e. fungal, scabies, bacterial, viral, STI, acne constitute about 51.83% of the total patients and rest were non infectious diseases (48.16%).

Fungal disease was the most common dermatological disorder seen in the study, followed by scabies and

bacterial infections, respectively. Acne, seborrheic diseases also came in top ten diseases. Diseases like bacterial, fungal, viral infection, scabies, sexually transmitted infection (STI), psychosexual disorder (PSD), atopic dermatitis (AD), urticarial, hair disease were seen significantly more commonly in males while acne, vitiligo, seborrheic dermatitis, melasma, lichen simplex chronicus (Lsc) and eczema were seen significantly more common in females. In other common diseases gender wise significant difference of occurrence was not seen.

## DISCUSSION

The pattern of skin diseases in Bangladesh is influenced by the developing economy, and level of literacy, social backwardness, varied climate, industrialization, access to primary health care, and different religious, ritual and cultural factors.<sup>[4]</sup>

In our study 56.47% patients were males showing male preponderance as shown by most of the other similar studies.<sup>[5,6]</sup> But some studies also reported female preponderance.<sup>[7]</sup>

The prevalence of infective disorders has outstripped that of non-infective disorders in some studies, varying from 42.68% to 89.72%.<sup>[5,7,8]</sup> However, some other studies have reported a higher prevalence of non-infective disorders, varying from 53.15% to 58.07%.<sup>[6,10-13]</sup> In our study higher prevalence of infective disorders (51.83%) was seen. This could possibly be due to higher infection rate in poor patients presenting in government hospitals and medical colleges. Among the infective conditions, while fungal infections was the most common disorder in most studies including ours 21.88%, varying in prevalence from 12.8% to 46.25%.<sup>[5-8,11-13]</sup> Higher prevalence of fungal infections is attributed to hot and humid climatic conditions especially in the long summer season.

Among the non-infective diseases, contact dermatitis was the most common condition seen in 7.24% of the patients which is much closer seen in the previous studies (4%<sup>15</sup>-10%<sup>16</sup>). In most of the previous studies eczema has been seen as the largest group among the non-infective diseases, prevalence varying from 16.17% to 33.93%.<sup>[5-8,10-13]</sup> but in our study we have seen eczema only in 2.15% of the patients which is much lower percentage compared to other studies.

We also compared the distribution of common diseases between male and female patients for e.g. Diseases like bacterial, fungal, viral infection, scabies, sexually transmitted infection (STI), psychosexual disorder (PSD), atopic dermatitis (AD), urticarial, hair disease were seen significantly more commonly in males which may be due to their occupation and higher chances of getting infection from others while acne, vitiligo, seborrheic dermatitis, melasma, lichen simplex chronicus

(Lsc) and eczema were seen significantly more common in females.

## CONCLUSION

To conclude, this study is the first of its kind done in Gazipur region especially in a government one. This study can help the newly practicing dermatologist in developing their practice.

Further study in a large scale can be more beneficial to evaluate the causal factors of skin problems in Gazipur.

## REFERENCES

1. Williams HC. Epidemiology of skin diseases. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. *Rook's Textbook of Dermatology*. 7th ed. Oxford: Blackwell Science, 2004; 6: 1-6-21.
2. Pattern Of Skin Diseases In Patients Attending OPD Of Dermatology Department At Faridpur Medical College Hospital, Bangladesh. SK Sarkar, AKMS Islam, KG Sen, ARS Ahmed. *Faridpur Med. Coll. J.*, 2010; 5(1): 14-16.
3. Pattern of skin diseases in patients attended opd of dermatology and venereology in a tertiary care teaching hospital in Bangladesh. AKM Yousuf, Y Joarder, A Akter, MN Haq, M Rahman, F Akter, H Begum, MR Akhtar, A. K. M. S Rahman. *Bangladesh J Physiol Pharmacol*, 2013; 29(1&2): 8-11.
4. Grover S, Ranyal RK, Bedi MK. A cross section of skin diseases in rural Allahabad. *Indian J Dermatol*, 2008; 53: 179-81.
5. Dayal SG, Gupta GP. A cross section of skin diseases in Bundelkhand region, UP. *Indian J Dermatol Venereol Leprol*, 1977; 43: 258-61.
6. Rao GS, Kumar SS, Sandhya. Pattern of skin diseases in an Indian village. *Indian J Med Sci.*, 2003; 57: 108-10.
7. Kuruvilla M, Sridhar KS, Kumar P, Rao G. Pattern of skin diseases in Bantwal Taluq, Dakshina Kannada. *Indian J Dermatol Venereol Leprol*, 2000; 66: 247-8.
8. Jaiswal AK, Singh G. Pattern of skin diseases in Kashmir region of India. *Indian J Dermatol Venereol Leprol*, 1999; 65: 258-60.
9. Gangadharan C, Joseph A, Sarojini A. Pattern of skin diseases in Kerala. *Indian J Dermatol Venereol Leprol*, 1976; 42: 49-51.
10. Das KK. Pattern of dermatological diseases in Guwahati Medical College and Hospital Guwahati. *Indian J Dermatol Venereol Leprol*, 2003; 69: 16-8.
11. Devi T, Zamzachin G. Pattern of skin diseases in Imphal. *Indian J Dermatol*, 2006; 51: 149-50.
12. Jaiswal AK, Banerjee S, Gulati R et al. Ecologic perspective of dermatologic problems in North Eastern India. *Indian J Dermatol Venereol Leprol*, 2002; 68: 206-7.
13. Nair SP, Nair TVG. Pattern of dermatological diseases in Trivendrum. *Indian J Dermatol Venereol Leprol*. 1999; 65: 261-3.
14. Asokan N, Prathap P, Ajithkumar K et al. Pattern of skin diseases among patients attending a tertiary care teaching hospital in Kerala. *Indian J Dermatol Venereol Leprol*, 2009; 75: 517-8.
15. Agarwal S, Sharma P, Gupta S, Ojha A. Pattern of skin diseases in Kumaun region of Uttarakhand. *Indian J Dermatol Venereol Leprol*, 2011; 77: 603-4.