

THE PATTERN OF SKIN DISEASES OF PATIENTS ATTENDING THE OUT PATIENTS DEPARTMENT IN A MEDICAL COLLEGE IN A DISTRICT IN WEST BENGAL

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ABSTRACT

Objective: The objective of the study was to find out the pattern of skin diseases among the patients attending the Dermatology outdoor of a Medical College located in a district in West Bengal.

Methods: This is an observational study. Patients attending the dermatology outdoor were included following the inclusion and exclusion criteria.

Results: In this study, we found that infective diseases (51.09%) were more than non-infective diseases (44.31%). Among the infective diseases dermatophyte infection (15.22%) and Scabies (12.31%) were the highest. Eczema (11.68%) and contact dermatitis (10.07%) were the highest among the non-infective diseases.

Conclusion: This study shows the pattern of skin diseases among the patients attending the dermatology outdoor. This gives a good idea about the skin diseases prevalent in this region. This knowledge will help to formulate policies regarding healthcare. It will also help to have an idea about the medicines and human resources required to deliver service to the people.

Keywords: Skin, Diseases, Pattern, Dermatology, Outdoor, Medical College.

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INTRODUCTION

Skin is the largest organ of the body [1]. The functions of the skin include sensation, temperature regulation, water conservation, etc. [1]. Skin is also very important for the appearance of a person [1]. Skin diseases affect people of all ages. Skin diseases lead to considerable morbidity. There can be itching, scaling, pain, etc., which can be troublesome for the affected person. The disease can lead to disfigurement. The disease can even affect the daily activities and work of the patient. The deterioration in quality of life is significant.

The pattern of skin diseases varies from place to place. The pattern of skin diseases is different in different countries of the world. The pattern varies between the different states in the same country. Even within a state, the pattern of skin disease varies in different regions. Geographical and environmental conditions have significant effects on skin diseases affecting the people. The pattern of skin diseases varies between the people residing in the plains, coastal areas, hills and mountains. Temperature, humidity, rainfall, etc. have important effects. There are huge geographical and environmental differences between the different regions in our country and state.

Socioeconomic condition of the people also has an important effect on the pattern of skin diseases prevalent in that area. Lack of proper hygiene, lack of proper nutrition, overcrowding, etc. due to poor economic conditions can lead to many skin problems.

The knowledge regarding the pattern of skin diseases among the population of an area is very important. Hence, research works have been conducted in several places to find out the pattern of skin diseases in their respective medical colleges and in their respective areas [2-5].

Objective

The objective of the study was to find out the pattern of skin diseases among the patients attending the Dermatology outdoor of a Medical College located in a district in West Bengal.

METHODS

Study settings

The study was conducted in a Medical College in a district of West Bengal.

Time lines

Cases were recorded over a period of 12 months.

Definition of population

Patients presenting to dermatology outdoor with different skin diseases.

Inclusion criteria

1. All new patients attending the dermatology outdoor with skin diseases.
2. Patients willing to participate in the study through a written informed consent.

Exclusion criteria

1. Patients whose diagnosis could not be confirmed.
2. Patients who did not agree to give consent for participating in the study.

Methods of data collection

All new patients attending the dermatology outdoor whose diagnosis could be confirmed were included for the study after they gave consent to participate in the study.

Study design

This is an observational study.

Schedule of data collection

All clinical data were recorded at the first visit.

RESULTS

This study was conducted from April 2022 to March 2023. Results are depicted in tabulated form in Table 1 and 2 as given below.

Total number of patients who attended the skin outdoor of this medical college in that period was 22445.

Total number of new patients among the patients attending the skin outdoor was 17716.

Total number of patients included in our study following the inclusion criteria and the exclusion criteria was 14856.

Total number of female patients in our study was 8276 (55.70%).

Total number of male patients in our study was 6580 (44.29%).

The highest number of patients were from the age group 30 to 40 years in our study.

In our study, the diseases were divided into infective skin diseases, non-infective skin diseases and others.

In this study, we had 7591 (51.09%) infective cases and 6584 (44.31%) non-infective cases. In the others category, we had 681 (4.58 %) cases.

DISCUSSION

Our study was conducted over a period of 1 year from April 2022 to March 2023. A study to find the pattern of skin diseases in a tertiary institution in Kolkata was conducted over a period of 1 year also [2]. Another study regarding the pattern of skin diseases was also conducted over a period of 1 year in Gurgaon [4]. A study was conducted over 2 years in Imphal to determine the pattern of existing skin diseases [5]. Another study in Nepal also collected data of patients over a period of 1 year [6]. A similar study in Bangladesh was also conducted over a period of 1 year [7].

The total number of patients in our study was 14856. A study conducted in a tertiary institution in Kolkata had a total of 12910 patients [2]. A study to determine the pattern of skin diseases conducted in Bangladesh had included 6203 patients [7]. A study conducted in Karachi, Pakistan had 1733 patients [8]. A study conducted in a tertiary institution in Kerala included 24631 patients [9]. Another study conducted in Imphal, Manipur included 29,663 patients [5]. Another study conducted in Gurgaon had a total of 7252 patients [4]. A study conducted in Nepal collected data of 7967 patients [6].

The number of female patients in our study was 8276 (55.70%). The number of male patients was 6580 (44.29%). That is female patients were more in number compared to male patients in our study. A study conducted in Lahore, Pakistan had 58% female patients and 42% male patients [10]. A study conducted in Bangladesh had 54.38% males and 45.62% females [7]. A study conducted in Nepal had 51% male patients and 41% female patients [11]. Another similar study conducted in Karachi, Pakistan had 54% female patients and 46% male patients [8].

The number of female patients was more in our study due to a few causes. In this region, females work in the agricultural fields and also in their homes. They have to work under hot and humid environmental conditions. They are exposed to high chances of getting infected by infective agents due to overcrowding and unhygienic conditions. Females come in contact with soil, fertilizers, insecticides, domestic animals, insects, various plants, etc. due to their different types of work.

These can lead to various skin problems. Females come more to the outdoor also because the outdoor is held during the day time when most of the males are engaged in some work for earning money. Most of the people who are workers in this region are males. Females also come to the outdoor more because they bring the children of the family to the hospital outdoor for treatment. Many people, mostly males, also have a tendency of ignoring skin problems considering these to be minor issues.

Most of the patients in our study were in the age group 30–40 years. We think that most of the patients were in this age group because people of this age group are most active in different jobs in this region. Most of the people of this area are involved in farming. People of this age group, that is, 30–40 years, shoulder bulk of the responsibility of the agricultural and other activities of their respective families. This makes people of this age group to face overcrowding and hot and humid conditions. They often face conditions which are not very hygienic. This increases the chance of people of this age group to get more skin infections. Along with that, people of this age group are exposed to several elements related to their daily activities, such as fertilizer, insecticides, water, mud, and cement, which can lead to different skin ailments. They are also regularly exposed to sunlight and rain. Hence, people of this age group also often suffer from skin diseases which are non-infective.

A study conducted in Telangana reported that the commonest age group of the patients attending the dermatology department was 31–40 years [12]. A study conducted in Gurgaon, Haryana found that the age group 30–44 years had the maximum incidence [4]. A study conducted in Nepal found that the commonest age group was 15–30 years [6]. A study in Pakistan found that most of the patients belonged to the 20–40 years age group [10]. A study done in Nigeria has reported that the median age of the patients was 27 years [13]. The age group of the patients attending the dermatology outdoor in different hospitals in different areas has some similarity. There are some differences also. This difference according to us is due to the difference in education, cultural habits, economic status, health consciousness, overall living standards, etc. of the population living in the respective areas.

In our study, we have divided the cases into infective and non-infective diseases. We found in our study that the number of infective cases was 7591 (51.09%) and the number of non-infective cases was 6584 (44.31%). That is the number of infective cases was more than the number of non-infective cases. A study conducted in Kolkata also found that the number of infective cases was more than the number of non-infective cases [2]. The study conducted in Kerala also concluded that infective diseases constitute the highest part of skin diseases. About 35.19% of their patients had infective skin diseases [9]. A study conducted in Mali found that 41% of the patients had infectious dermatoses [14]. Other studies have also found that a major part of skin diseases are infective in nature [15-18]. A study in Uttarakhand found that 58.7% of patients had non-infective skin diseases and 27.1% of patients had infective skin diseases [19]. Another study in Telangana also reported that non-infective skin diseases are more in number than infective skin diseases [12]. This can be due to specific social, demographic and economic conditions of the people residing in the regions where these studies were conducted.

The high number of infective skin diseases in our study is due to the geographical location of the hospital and the socioeconomic condition of the people living in this area. Most of the patients attending our hospital are from rural areas. Mostly they belong to the poor socioeconomic strata. There is a lack of hygiene, overcrowding and a huge possibility of repeated exposures to the infective agents. The weather in this region is hot and humid during most of the months. The weather has a very important role which leads to persistence and spread of the infective skin conditions.

Among the infective diseases, we detected in our patients the highest number of cases were fungal infections. Most of these were superficial

Table 1: List of infective skin diseases in our study – 7591 cases (51.09% of the total included cases)

S. No.	Disease	Number of cases (% of total included cases)
1	Fungal diseases	
	Dermatophytes	2262 (15.22)
	Candidiasis	387 (2.60)
	Pityriasis versicolor	176 (1.18)
2	Viral infections	
	Varicella	487 (3.27)
	Herpes zoster	232 (1.56)
	Molluscum	33 (0.22)
	Warts	68 (0.45)
3	Bacterial infections	
	Pyoderma	1194 (8.03)
	Impetigo	440 (2.96)
4	Parasitic infestation	
	Scabies	1830 (12.31)
5	Paronychia	101 (0.67)
7	Leprosy	87 (0.58)
8	Sexually transmitted diseases	294 (1.97)

Table 2: List of non-infective skin diseases in our study – 6584 cases (44.31% of the total included cases)

S. No.	Name of disease	Number of cases	Percentage of total included cases
1	Eczema	1736	11.68
2	Contact dermatitis	1497	10.07
3	Photodermatitis	252	1.69
4	Insect Bite	285	1.91
5	Psoriasis	233	1.56
6	Urticaria	198	1.33
7	Alopecia areata	34	0.22
8	Acne	822	5.53
9	Seborrheic Dermatitis	588	3.95
10	Pityriasis Alba	27	0.18
11	Prurigo	32	0.21
12	Lichen planus	35	0.23
13	Atopic dermatitis	44	0.29
14	Vesiculobullous disorders	21	0.14
15	Melasma	397	2.67
16	Vitiligo	288	1.93
17	Skin tags	29	0.19
18	Drug reactions	31	0.20
19	Scar	19	0.12
20	Tattoo removal	16	0.10

fungal infections. This has been reported by other studies also. The study conducted in Kerala had similar findings [9]. The study conducted in Imphal also found that fungal infections contributed the highest number of cases among the infective diseases [5]. There are other studies which found that infection was the most common cause of skin diseases and among infections, the number of fungal infection was the highest [20-22]. Dermatophyte infection was the most common skin disease detected in our study. The number of dermatophyte infection patients was 2262 (15.22%). A study conducted in Jharkhand also found that Tinea infections were the most common cases among the infective skin diseases [23].

The second highest number of cases in the infective disease group was due to Scabies. The number of Scabies patients in our study was 1830 (12.31%).

The high number of patients having Tinea infections and Scabies has several causes. These causes are overcrowding, lack of hygiene, irregular and inadequate treatment, hot and humid weather conditions, etc. There is also a lack of awareness regarding these diseases which leads to repeated infections.

The other common diseases in this infective group were pyoderma (1194, 8.03%), impetigo (440, 2.96%), varicella (487, 3.27%).

In our study among the non-infective group, the highest number of cases was due to eczema. The number of patients in our study having eczema was 1736 (11.68%). Eczema was the most common case among the non-infective group in a study conducted in Kerala [9]. Eczema was the most common diagnosis in another study conducted in Manipur [5]. Another study conducted in Nepal also found that eczema was the most common skin disease in both genders [6]. A high incidence of eczema has been reported by other studies also [12,20].

In our study, the second highest number of cases in the non-infective group was due to contact dermatitis. The number of patients due to contact dermatitis in our study was 1497 (10.07%).

The high incidence of eczema and contact dermatitis that we found in our study has some causes. Most of the patients attending our institution are from rural areas. Most of them are farmers. Some of them also work as construction workers and other temporary jobs while they are not busy with farming. Naturally, these people are exposed to water, mud, fertilizers, insecticides, cement, dust, plants, insects, etc. The exposure to these elements can lead to skin diseases such as eczema and contact dermatitis.

WHAT IS NEW

This is the first study that has been conducted to find out the pattern of skin diseases of the patients attending the dermatology outdoor of this medical college which is located in a district in the northern part of West Bengal. This will give us an idea regarding the pattern of skin diseases prevalent in the population residing in this area.

It was found that infective skin diseases were affecting more people than non-infective skin diseases. Superficial fungal infections, especially Tinea infections were affecting the highest number of patients. Scabies was the second highest number of cases among the Infective skin diseases.

Among the non-infective skin diseases affecting the patients, the highest was eczema. Contact dermatitis was the second highest number of cases among the non-infective skin diseases.

CONCLUSION

Knowledge about the pattern of all diseases affecting the people of any region is of huge importance. A clear idea about the prevalence of diseases is very important for planning policies regarding healthcare. This is true for skin diseases also.

This study found out the pattern of skin diseases prevalent in the people attending the dermatology outdoor of this medical college. This will certainly give us an idea about the pattern of skin diseases present among the people living in this region.

This information will be a huge help to make arrangements for treatment facilities for the people of this region. This knowledge will be the basis of deciding the type and amount of medicines required. This will give us a clear conception about the human resources required for providing proper service to the people of this region. Another important aspect is that this knowledge will help us to formulate and organize relevant health awareness programs among the common people.

CONTRIBUTION OF AUTHORS

The authors confirm contribution to the paper as follows:

1. Dr. Nirmalya Kumar Das – Study conception & design; Data Collection
2. Dr. Mousumi Roy Bandyopadhyay – Study conception & design; Draft Manuscript preparation
3. Dr. Dibyendu Basu – Data Collection; Analysis & interpretation of Results

4. Dr. Pinki Bardhan (Corresponding Author) – Data Collection; Analysis & interpretation of Results
5. Dr. Suchibrata Das – Draft Manuscript preparation
6. Dr. Sujata Sinha – Draft Manuscript preparation

All authors reviewed the results and approved the final version of the manuscript.

CONFLICTS OF INTEREST

None.

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