

Pattern of Dermatological Disease and its Relation to Gender in Lumbini Medical College Teaching Hospital

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ABSTRACT:

Introduction: The pattern of skin disease differs in different countries, and within various region of a country depending on socio-economic, racial and environmental factors. Many researchers have reported various patterns of skin disease in different countries. This type of study has not been done in this part of country. So, we decided to study, assess and compare the different pattern of dermatological disease in patients visiting our centre. **Methods:** This was retrospective study done from the hospital record of Lumbini Medical College Teaching Hospital (LMCTH). The study was carried out from September 2014 to December 2014 while the data were accessed from the records of respondents from September 2013 to August 2014. The diagnosis was categorized into 10 groups. The diagnosis which did not fit any category was kept in "Others". The 10 categories include acne, bacterial infection, dermatophytes, eczema, leprosy, pigmentary diseases, psoriasis, scabies, urticaria and viral infection. Data was collected based on gender and categorized according to the diagnosis. Microsoft Excel was used for data entry while all the analysis both descriptive and inferential statistics was done using SPSS version 21. **Results:** There were a total of 7967 patients visiting Dermatology OPD. Out of the total patient, there were 52.10% female and 47.89% male and this difference was statistically significant. In both gender eczema was the most common skin disease. Eczema was significantly more common in male whereas acne was significantly common in female. Most of the patients were from age group of 15-30 yrs with eczema being commonest in this age group. **Conclusion:** Eczema and dermatophytes are the most common dermatological diseases. Eczema is significantly more common in male. Acne is significantly more common in female.

Keywords: acne • dermatologic • disease • eczema • gender

INTRODUCTION:

Dermatological diseases have high morbidity but apparently few mortalities. It is an important part of any major hospital. The pattern of skin diseases varies from one country to another and across different parts within the country. It also varies according to gender.¹ Skin diseases are also influenced by various factors like climate, custom, religions, languages and socio-economic

condition. The annual report of the health services in 2067/2068 ranks skin diseases as the fourth most common problem in patients attending outpatient clinics in the country, and comprises 1.4% of the total in-patient morbidity.²

As the pattern of dermatological diseases varies in different parts of a country and in different gender, we decided to conduct a retrospective study on pattern of skin diseases and its relation to gender, in Lumbini Medical College Teaching Hospital. Identifying the pattern of dermatoses can help to educate the patients and plan for the community management of the diseases.

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METHODS:

This was a retrospective analytical study done in Lumbini Medical College Teaching Hospital from 1st of October 2014 to 31st of December 2014. During this period, the record of all patients visiting

to outpatient clinic of Department of Dermatology and Venereology from 1st of September 2013 to 31st of August 2014 was reviewed. The patient's second name, age, sex, address and diagnosis were recorded. All the diagnosis was made only by dermatologist. Diagnosis was done by clinical examination in most cases and laboratory investigation was done whenever required.

Diagnosis was grouped into 10 categories. The diagnosis which does not fit into these categories was kept in "Others". The 10 categories include acne, bacterial infection, dermatophytes, eczema, leprosy, pigmentary diseases, psoriasis, scabies, urticaria and viral infection. Pattern of diseases according to gender was also recorded. Microsoft Excel sheet was used to tabulate the data. Data analysis was done in SPSS 21. *T*-test was used to compare mean; Chi-square test was used to compare proportions. *P* value less than 0.05 was considered significant.

RESULTS:

A total of 7967 patients were included in this study. As shown in Table 1, 4151 (52.10%) were female and the rest 3816 (47.89%) were male. This difference was statistically significant. Eczema was the most common disease in both gender. Acne was the next common disease in female whereas dermatophytes were in male. Leprosy was the least common disease in both gender.

Acne, pigmentary diseases, psoriasis and urticaria were significantly more common in female compared to male. Eczema was the only disease

Table 1: Distribution of disease by gender.

Diseases	Male	Female	statistics
Eczema (n=1737)	958	779	$X^2=18.45, p<.001$
Dermatophytes (n=1329)	700	629	$X^2=3.79, p=.052$
Acne (n=1128)	386	742	$X^2=112.36, p<0.001$
Scabies (n=622)	324	298	$X^2=1.09, p=.3$
Pigmentary Diseases (n=733)	290	443	$X^2=31.94, p<.001$
Bacterial Infection (n=422)	217	205	$X^2=.34, p=.56$
Urticaria (n=462)	205	257	$X^2=5.85, p=0.02$
Viral Infection (n=398)	205	193	$X^2=.36, p=.55$
Psoriasis (n=309)	130	179	$X^2=7.77, p=.005$
Leprosy (n=23)	10	13	$X^2=.39, p=.53$
Others (804)	391	413	$X^2=.6, p=.44$
Total (n=7967)	3816	4151	$X^2=14.09, p<.001$

that was significantly more common in male. Dermatophytes, scabies, bacterial infections, viral infections and leprosy were comparable in both gender.

Table 2: Pattern of disease according to age groups

Diseases	Age-Group (years)			
	<15	15-30	31-45	>45
Acne	54	878	193	3
Bacterial Infection	94	119	98	111
Dermatophytes	105	633	399	192
Eczema	116	527	564	530
Leprosy	0	10	10	3
Others	61	310	267	166
Pigmentary Disease	65	275	301	92
Psoriasis	3	72	118	116
Scabies	212	254	120	36
Urticaria	109	143	130	80
Viral Infection	31	130	137	100
Total	850	3351	2337	1429

Table 2 shows the age-group distribution of the diseases. The most commonly affected age group was 15-30 years.

DISCUSSION:

In our study, dermatological disorders were more common in female which was statistically significant. Some studies have reported female preponderance,^{3,4} as in our study, others have reported male preponderance.⁵

Among all the dermatoses, eczema was the commonest (21.8%) with male outnumbering female which was statistically significant. In our country Nepal where farming is the main source of income, thus they are prone to develop eczema mainly on hands and feet. Shrestha R. et al. had done study on pattern of skin diseases in a rural area of Nepal and found that eczema was the commonest dermatoses.⁴ Similar results were in others studies as well.⁶⁻¹⁰ But study done by Poudyal Y. et al. showed dermatophytes was the commonest skin disease.¹¹ However, it was the second common disease in our study (16.68%) which was comparable in both gender. It can be due to climatic variation in different region of the country. This reflects the fact that warm and humid climate creates the environment for the development of fungal infection.¹²

The low incidence of Hansen's disease in this study (7.81%) is due to the fact that such patients

mainly attend leprosy center.

The most common age group presenting to the OPD was 15-30 years. Acne was the most common dermatoses in this age-group followed by dermatophytes and eczema. Similar result were found in study done by Karn D. et al. on prevalence of skin disease in Kavre district, Nepal.¹³ This may be due to fact that this is the most active population and the people in this age group are self conscious about their looks, skin and personalities.¹⁴ Similar result were found in other study as well.^{11,15}

CONCLUSION:

Eczema, Dermatophytes and Acne were the most common pattern of dermatological diseases found in this hospital. The patient from age group 15-30 years were the most frequent group with Female predominance. This study provides a preliminary baseline data for future clinical research. It might also help to assess the changing trends of dermatological diseases.

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