

Pattern of skin diseases in mid-western region of Nepal

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ABSTRACT

Introduction: There are various types of skin lesions that might present to the dermatologist. Most dermatologists are aware of such disease in ages. The occurrence of skin diseases in any community depends upon various factors. This retrospective study, likely reflects the pattern of skin disease in the Mid-Western Region of Nepal due to the only skin clinic in whole Surkhet valley.

Methods: All the newly diagnosed cases attending the OPD during the period. The skin diseases were grouped into infective and non-infective diseases. Diagnosis was made on clinical grounds and laboratory method if required.

Result: The total numbers of cases recorded were 2151. Tinea infection emerged as the commonest disease as 13.25% followed by eczema (12.32 %). Urticaria (9.72%), acne vulgaris (9.21 %), seborrhc dermatitis (5.11 %) and alopecia areata (4.74 %) were the commonest diseases among non-infective skin disease. Among viral infections warts (5.90 %) and chicken pox (3.25 %) were commonest followed by Herpes simplex (2.42 %) and Herpes zoster (1.02 %).

Conclusion: Tinea infection, eczema and urticarial disorders were the most common pattern of dermatological condition found. The pattern found in our study was in similar to that found in various other studies.

INTRODUCTION

There are probably at least 2000 different skin conditions that might present to the dermatologist, and most dermatologists treat patients of all ages, from the neonate to elderly. The conditions seen vary enormously in severity. They range from cosmetic problems, such as dry skin or wrinkles, through a huge variety of acute or chronic diseases, which may be disfiguring, itchy or painful, but are rarely fatal, to life-threatening conditions, which, if untreated, may prove fatal within days.¹ Human skin may mirror the presence of benign/malignant systemic diseases in many different ways. Many times, an unusual skin eruption may be a clue to some internal disorder that may not be obvious and only by the presence of a dermatosis may it become evident that period a systemic disease may be present.² Disease pattern in a given population is generally determined by different ecological factors.³ Pattern of skin diseases vary from country to country. Even in the same country it differs from region to region.¹ The occurrences of skin diseases in any community depends upon various factors like genetic and racial constitution, the social and hygienic practices, customs and occupations, the nutritional status and age structure of the community, climatic factors, state of urbanization.⁴

The pattern of different skin diseases varies in different parts of Nepal due to differences in socioeconomic and geographic factors. In this study, pattern of different skin diseases reflects the pattern of skin disease in the Mid-Western Region of secondary health of Nepal due to the only skin clinic in whole Surkhet valley.

METHODS

All the newly diagnosed cases attending the OPD during the period of one year starting from 15th July 2015 to 16th July 2018 were included in the study. Males and females of all age group were included in this study. The skin diseases were grouped into infective and non-infective skin diseases. Those skin diseases which were not coming under this format were classified as miscellaneous. Diagnosis was made on clinical grounds and laboratory method if required.

RESULTS

The total number of patients who attended outpatient department during the study period from 15th July 2015 to 16th July 2016 was 2151. The number of newly diagnosed cases and percentage of infective and non-infective skin diseases are shown as Table I & II. Tinea infection emerged as the commonest disease as 13.25% followed by eczema (12.32%). Maximum numbers of patients in outpatient department were tinea infections. Urticaria (9.72%), acne vulgaris (9.21%), seborrhic dermatitis (5.11%) and alopecia areata (4.74%) were commonest disease among non-infective skin disease. Among viral infections warts (5.90%) and chicken pox (3.25%) were commonest followed by Herpes simplex (2.42%) and Herpes zoster (1.02%). Pyoderma (8.83%), pityriasis versicolor (7.21%), Sexually Transmitted Infections (3.49%), scabies (2.12%), and candidiasis (0.70%) respectively infective skin and venereal diseases were also found in the outpatient department. Gonococcal urethritis was most common STI. Skin and soft tissue tumor (2.37%), melasma (2.09%) and rosacea (1.16%) were the other major disorders. Most of the skin and soft tissue tumours were benign in nature. The incidence of melasma is higher in pigmentary disorder. Among papulosquamous, psoriasis (0.93%) was found the commonest followed by pityriasis alba (0.56%), pityriasis rosea (0.423%), drug eruption (0.42%), ichthyosis (0.14%) and lichen planus (0.19%). Vitiligo (0.37%) and bullous disease (0.33%) were also noted in OPD. Hansen's disease formed 0.09% of the total newly diagnosed cases. Of the connective tissue disorders, morphea (0.14%) and Discoid lupus

erythematosus (0.14%) were the commonest, followed by and systemic sclerosis (0.05%).

Table 1: Infective skin diseases

Disease	No of patients			Percentage
	Male	Female	Total	
Tinea infection	210	75	285	13.25
Pyoderma	150	40	190	8.83
Pityriasis versicolor	125	30	155	7.21
Warts	102	25	127	5.90
STI	70	5	75	3.49
Chicken pox	58	12	70	3.25
Herpes simplex	42	10	52	2.42
Scabies	32	15	47	2.19
Herpes zoster	21	1	22	1.02
Candidiasis	10	5	15	0.70
Hansen's disease	2	0	2	0.09
Total	822	218	1040	48.35

Table 2: Non infective skin diseases

Disease	No of patients			Percentage
	Male	Female	Total	
Eczema	205	60	265	12.32
Urticaria	153	56	209	9.72
Acne vulgaris	123	75	198	9.21
Seborrhic Dermatitis	95	15	110	5.11
Alopecia areata	96	6	102	4.74
Skin and Soft tissue tumours	39	12	51	2.37
Melasma	29	16	45	2.09
Rosacea	16	8	24	1.16
Psoriasis	15	5	20	0.93
Pityriasis alba	10	2	12	0.56
Pityriasis rosea	8	1	9	0.42
Drug eruption	7	2	9	0.42
Vitiligo	6	2	8	0.37
Bullous disease	6	1	7	0.33
Lichen Planus	3	1	4	0.19
Ichthyosis	2	1	3	0.14
Morphea	1	2	3	0.14
DLE	0	3	3	0.14
Systemic sclerosis	1	0	1	0.05
Miscellaneous	16	12	28	1.30
Total	831	280	1111	51.71

DISCUSSION

In this study various pattern of dermatological disease were studied in the outpatient department. Various socioeconomic and geographical conditions are responsible for different pattern of disease. Moisture, temperature, hygiene, food habits, medications, sexual exposure, lower immunity are some of the causes of various disease. The study conducted from different countries by various authors. In our study infective conditions were higher than non-infective. The highest being tinea infections mostly due to warm and highly humid climate of this region may account for the high incidence of fungal infections. In other study Eczema emerged as the single largest group of disorders.¹⁴ Similar findings are also reported by other workers.⁵ Eczema emerged as the commonest group of disorders (19.2%) followed by fungal infections (17.26%), scabies (15.16%), and pyodermas (7.59%).⁶ Similar study found as fungal infection was the commonest infection seen (22.92%) and eczemas took an upper hand in non-infectious group (32.19%).² Shrestha DP et al had done a comparative study on pattern and prevalence of eczema and found that it was the commonest group of disorders both in the outpatients and the community.⁷ Eczema (17.48%), fungal infections (17.19%), pyodermas (9.10%) and scabies (8.97%) were the major skin diseases found in some other study with STD's accounted for (3.60%) of the cases.⁸ But in our study fungal infections being the upper hand followed by eczema may be due to pattern of cloths wearing among soldiers and high humidity and low socioeconomic.

According to Fawwaz A et al, the retrospective study was conducted in King Khalid Hospital in Hail, dermatology clinics of the health Ministry of Saudi Arab among 13778 patients. Eczema (37%) was the most common disease being atopic dermatitis (12%) in eczema followed by acne (20%), alopecia (8%), other pigmentary (7%) with vitiligo comprising (7%) which is the most common pigmentary lesion of the total, viral wart (7%), psoriasis (4%), leishmania (4%), Tinea (2%), other pilosebaceous (1%) and the other (3%).¹⁵ This study varies from our study due to climate and socioeconomic condition of the country.

A study was conducted on 7252 patients who attended the Skin and VD outpatient department of SGT Medical College of India by Vinita G during the period of one year. Eczema (17.9%) and fungal infections (17%) came out to be the top two most common disorders¹⁶ which was similar to our study. Baijayanti B et al had found Tinea

and Acne most commonly recurred among the study population. Scabies was most common infectious type (20.4%) and acne (12.4%) was most common noninfectious dermatoses based on patients attending the skin O.P.D of a tertiary care hospital in Kolkata, India¹⁷. This study seems similar to our study.

According to Poudyal Y et al, dermatophytosis and eczema are the most common dermatologic disorders in Terai region. The retrospective study done from the hospital OPD patient's record of Universal st college of Medical Sciences & Teaching Hospital (UCMS-TH).¹⁸ This study also similar to our study may be due to identical geographical regions.

According to Sudip D et al. among 2550 patients from OPD, infective dermatoses were the commonest (36.41%). Allergic diseases of skin were a close second with 29.88%. The other groups recorded in the study were respectively papulosquamous disorders¹⁹ in India which seems to be similar from our study because of similar weather of two different regions of the countries. According to Jha SM, the infective groups of disorders were the largest group of disease. Similarly other large groups were Eczema, papulosquamous and sexually transmitted disease. This study conducted in Shree Birendra Hospital, Chauni²⁰. This study shows the similarity to our study.

There is low incidence of urticarial disease in other study⁷ but in our study urticaria found to be much more than other study may be due to dustier city or living with low socioeconomic condition. Our study and Shrestha R¹³ study for incidence of urticaria is similar. Acne was the most common disorder followed by fungal and bacterial infection found in other study⁹ but in our study acne (9.21 %) was not that much common may be due to less awareness among people. The incidence of STI and leprosy has been recorded as 2.63% and 2.26% respectively² where as in our study STI found 3.49 % may be due to high sexual exposure within valley among army personnel. The high incidences of Pyodermas in our study may be due to the low socio-economic status and nutritional deficiency of such patients. Similar findings were found in studies conducted by Karanti BK.¹⁰ The incidence of viral infection was relatively low (2.44%) in our study which is comparable to similar studies done in Imphal⁸ (3.78%), and Trivandrum¹¹ (5.10%). The low incidence of Hansen's disease in this study (0.09%) is due to the fact that such patients mainly attend leprosy center where the medicines

(MDT) are given free of cost. The incidence of drug reactions in our study was only 0.42%. Some studies have shown that the incidence of drug reaction necessitating hospital admission ranges from 3-8%.¹² This low figure is due to the attendance of patients to the emergency and medicine OPD regional hospital Surkhet.

The patients attending the OPD in the hospitals come from the different places of Surkhet valley and from neighboring regions. More than 90% of patients come from the different regions of this valley. Here is the only one dermatologist in whole area of this valley. Thus, the picture found in this study nearly represents the picture of Mid-Western Region of Nepal.

CONCLUSION

Tinea infection, Eczema and urticarial disorders were the most common pattern of dermatological condition found in secondary level of hospital in Mid-Western region of Nepal. The pattern found in our study was in general similar to that found in various other studies.

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