

Research Article

# Spectrum of Dermatological Disorders in Tertiary Care Hospital in Madhesh Province of Nepal

Ram Gyan Yadav<sup>1</sup>, Jay Prakash Pandit<sup>2</sup>, Bimal Kumar Sah<sup>3</sup>, Jyotshna Yadav<sup>4</sup>

<sup>1,2,3</sup>Department of Dermatology and Venereology & ART Centre Madhesh Institute of Health Sciences, Madhesh Province, Nepal.

<sup>4</sup>Department of Dermatology and Venereology, Janaki Medical College Teaching Hospital, Janakpur, Nepal.

DOI: <https://doi.org/10.24321/2455.7048.202409>

## I N F O

### Corresponding Author:

Ram Gyan Yadav, Department of Dermatology and Venereology & ART Centre Madhesh Institute of Health Sciences, Madhesh Province, Nepal.

### E-mail Id:

ramgderma@gmail.com

### How to cite this article:

Yadav R G, Pandit J P, Sah B K, Yadav J. Spectrum of Dermatological Disorders in Tertiary Care Hospital in Madhesh Province of Nepal. *Epidem Int.* 2024;9(4):10-12.

Date of Submission: 2024-10-15

Date of Acceptance: 2024-11-20

## A B S T R A C T

**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 Madhesh Province (Terain region) of Nepal.

**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 4016. Non-infective skin disease was 54.1% and Infective skin disease was 45.9%. Eczema emerged as the commonest diseases as 24.2% followed by tinea (12.2%). Scabies (11.2%), Pyoderma (6.2%), warts (3.6%) and Molluscum contagiosum (3.5%) were the commonest infective skin diseases. Acne vulgaris (8.1%), Urticaria (7%), Vitiligo (2.2%) and Melasma (2%) were the commonest non-infective skin diseases.

**Conclusion:** Eczema, tinea infection and scabies disorders were the most common pattern of dermatological condition found.

**Keywords:** Dermatological Disorders, Eczema, Pyoderma

## Introduction

Skin diseases account for a significant public health issue in developing countries.<sup>1</sup> Skin disorders affect 20-30% of the general population at any given time.<sup>2</sup> Different studies conducted in Nepal and India have a prevalence rate ranging from 4.3% to 49.1%.<sup>3-11</sup> The pattern of skin disease is influenced mainly by genetics, age, gender, geographical location, climate and hygiene. Skin diseases mostly occur due to exogenous factors and its linkage to most of the systemic diseases, makes it one of the most common public health issues worldwide. In the developing countries, poor hygiene and low socio-economic status are often responsible for most of the infectious skin diseases. Identifying the

prevalence of skin diseases can help educate the patients and decrease disease morbidity as most patients with dermatological problems, especially in rural areas, do not often seek medical help unless it is too late. The prevalence of skin diseases differs between different regions as a result of these factors. There is a substantial lack of data regarding the actual prevalence of skin disease in Nepal. To the best of our knowledge, no study has yet been conducted on the prevalence of skin diseases in Madhesh Province of Nepal.

## Methods

All the newly diagnosed cases attending the OPD of Dermatology and Venereology at Madhesh Institute of Health

*Epidemiology International* (ISSN: 2455-7048)

Copyright (c) 2024: Author(s). Published by Advanced Research Publications



Sciences during the period of one year starting from 1<sup>st</sup> January 2022 to 31<sup>st</sup> December 2022 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. Ethical approval was taken from the Institutional Review Board (IRB) of Janaki Medical Collage Teaching Hospital.

## Results

Total number of patients was 4016, out of which 1914(47.6%) were male and 2102(52.4%) were female. Among the participants, the highest number of cases 980(24.4%) were present in age group 11-20 years. Nearly one sixth (15.7%) patients were below 10 years of age and over 75% represented below 40 years.

The number of newly diagnosed cases and percentage of infective and non-infective skin diseases are shown as table II. Eczema emerged as the commonest disease as 24.2 % followed by tinea infection (12.2 %). Maximum numbers of patients in outpatient department were eczema. acne vulgaris (8.1 %), Urticaria (7 %), vitiligo vulgaris (2.1 %), seborrheic dermatitis (2%) and melasma (2 %) were commonest disease among non-infective skin disease. Among infective skin diseases scabies infection (11.2 %) and pyoderma (6.2 %) were commonest followed by viral warts infection (3.6 %) and Molluscum contagiosum (3.5 %). Sexually Transmitted Infections were found in 91 (2.3 %), syphilis was the commonest STI followed by gonococcal urethritis. Among fungal infection pityriasis versicolor were (1.6 %) and Candidiasis were (0.90 %). Among viral infections herpes simplex were (1.5 %), herpes zoster was (1.3 %) and Chicken pox were (1.3 %). Among granulomatous dermatitis Hensen's disease were (0.20 %) and Cutaneous leishmaniasis were (0.10 %). Among other non-infective diseases pityriasis alba was (1.9%), lichen planus (1.4 %), drug eruption (1.3 %), alopecia (1.3 %), psoriasis (1 %), rosacea (0.80 %), ichthyosis (0.10 %), bullous disorder (0.08 %) and discoid lupus erythematosus was (0.10 %).

**Table I. Socio-Demographic Status of the Study Patients**

Sociodemographic Variables	Number	Percentage (%)
<b>Gender distribution of participants</b>		
Male	1914	47.6
Female	2102	52.4
<b>Age (in years)</b>		
0-10	631	15.7
20-Nov	980	24.4

21-30	590	14.7
31-40	820	20.4
41-50	390	9.7
51-60	249	6.2
61-70	187	4.6
>70	169	4.2

**Table 2. Distribution of Skin Disease**

Diseases	Number	Percentage (%)
Infective dermatosis	1842	45.9
Pyoderma	250	6.2
Tinea infection	490	12.2
Pityriasis versicolor	63	1.6
candidiasis	36	0.9
Warts	146	3.6
Molluscum Contagiosum	139	3.5
Herpes simplex	60	1.5
Chicken pox	52	1.3
Herpes Zoster	53	1.3
Scabies	449	11.2
Hensen's Disease	10	0.2
Cutaneous Leishmaniasis	3	0.1
Sexually transmitted infection	91	2.3
Noninfective skin diseases	2174	54.1
Eczema	971	24.2
urticaria	280	7
Acne Vulgaris	325	8.1
Seborrhic Dermatitis	79	2
Alopecia	51	1.3
Melasma	82	2
Rosacea	25	0.6
Psoriasis	42	1
Pityriasis Alba	76	1.9
Drug eruption	51	1.3
Vitiligo	90	2.2
Lichen Planus	57	1.4
Bullous disorder	2	0.08
Ichthyosis	5	0.1
DLE	5	0.1
Miscellaneous	33	0.8
Total	4016	100

## Discussion

In this studies, the maximum number of patients were seen among age group 11-20. Similar results have been disclosed by others as well, who surmise that this may possibly be due to fact that people of this age group are very energetic and self-conscious about their appearance, complexion, and charm.<sup>10</sup> In the present study female patient outnumbered the male (52.4 %) which is similar to the other studies.<sup>12</sup>

Cutaneous infections and eczema are the two major conditions accounting for the maximum number of patients in most of the published journals.

Among all the skin disorder, eczema(24.2 %) was the commonest skin diseases in our study, which is similar to the study done by Shrestha D P et al in which eczema(12.2 %)<sup>11</sup> and Shrestha R et al in which eczema(48%)<sup>12</sup> were the commonest skin disorder. The prevalence of Eczema in the present study may possibly describe that most of our patient were farmer or work in the field for livelihood. They might be bare foot or bare hand and do not use any sun protection cream while working outdoors.

A study done at Dhulikhel Hospital, Kavre, Nepal had a staggering number of pigmentary disorders (32.56 %), followed by adnexal diseases (22 %), whereas skin infections ( including STD and Leprosy) only accounted for 17.77 %.<sup>10</sup> On the contrary, in our study, pigmentary disorders accounted for only (4.2 %), adnexal diseases (9.4 %) and cutaneous infection was seen in (45.9 %) of the total patients. This difference in disease pattern in various parts of Nepal emphasizes on the diversity of disease prevalence in different geographical location location of the country.

Walker et al. conducted a point prevalence study in Bara district of Nepal in which they found a surprisingly higher occurrence of skin disease (62.2 %) out of which cutaneous infection and infestations comprised almost 35%.<sup>13</sup>

## Conclusion

In the current study, almost half of the cases consisted of cutaneous infection. So in our part of the world, we still need to focus much more on treating and preventing skin infections than the non-infectious dermatoses.

**Source of Funding:** None

**Conflict of Interest:** None

## References

1. Aboobaker J, Taylor M, Coovadia H. Skin disorders in primary health care in Kwazulu-Natal, South Africa. Proceedings of the 21st World Congress of Dermatology; 2007 Sep 30-Oct 5; Buenos Aires, Argentina. Buenos Aires: International League of Dermatological Societies; 2007.
2. Rea JN, Newhouse ML, Halil T. Skin disease in Lambeth: a community study of prevalence and use of medical care. *Br J Prev Soc Med.* 1976; 30: 107-14.
3. Mukherjee PK, Sen PC. Health status of school children in rural West Bengal. *J Indian Med Assoc.* 1962; 38: 421-426.
4. Shah PN and Udani PN: Medical examination of school children in Palghartaluka. *Ind J Pediat.* 1968; 5: 343-361.
5. Dattabanik ND, Nayar S, Krishna R et al: study of morbidity pattern, nutritional status and various defects of urban primary school children in Delhi. *Ind J Pediat.* 1970; 37: 561-564.
6. Gupta B, Jain TP and Sharma R: Health status of school children in some primary schools of rural Rajasthan. *Ind J Prev Soc Med.* 1973; 4: 24-30
7. Santhanakrishnan BR, Shanmugam D and Chandra-bhushanam A: School health service in Madras city. *Ind Pediat.* 1974; 11: 421-5.
8. Sharma NK, Garg BK and GoelM: Pattern of skin diseases in urban school children. *Ind J Dermatol Venereol Leprol.* 1986; 52: 330-331.
9. Kumar V, Garg BR and Baruah MC: Prevalence of dermatological diseases in school children in a semi-urban area in Pondicherry. *Ind J Dermatol Venereol Leprol.* 1988; 54: 300-302.
10. Karn D, Khatri R, Timalcina M: Prevalence of Skin Diseases in Kavre District, Nepal. *NJDVL.* 2010; 9: 7-9.
11. Shrestha D P, Gurung D, Rosdahl I: Prevalence of skin diseases and impact on quality of life in hilly region of Nepal. *Journal of Institute of medicine.* 2012; 34: 44-49.
12. Shrestha R, Kayastha BMM. Pattern of skin diseases in rural area of Nepal. *PMJN postgraduate Medical Journal of NAMS,*2012;12(2):1-4.
13. Walker SL, Shah M, Hubbard VG, Pradhan HM, Ghimire M. Skin disease is common in rural Nepal: results of a point prevalence study. *Br J Dermatol.* 2008; 158 (2): 334-8.