

PATTERN OF SKIN DISEASES IN PATIENTS ATTENDING DERMATOLOGY OUTPATIENT DEPARTMENT AT A TERTIARY CARE HOSPITAL IN UTTARAKHAND

Shiv Darshan Singh Rawat¹, Ena Jain², Nancy Bharadwaj³

¹Professor, Department of Dermatology, Venereology and Leprosy, Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand.

²Post Graduate Student, Department of Dermatology, Venereology and Leprosy, Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand.

³Post Graduate Student, Department of Dermatology, Venereology and Leprosy, Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand.

ABSTRACT

BACKGROUND

The pattern of skin diseases varies in different countries, and within various regions of the same country, depending on racial, environmental, social and economic factors. This variation, in the pattern of dermatoses, has been reported by various workers from different regions of India. Information on the pattern of skin diseases in Uttarakhand state; however, is very sketchy.

AIM

To study the pattern of dermatoses in patients, at a tertiary referral centre, in Garhwal region of Uttarakhand.

MATERIAL AND METHODS

This was a retrospective study where data of all the new patients presenting to outpatient department of dermatology between 01 Oct 2012 to 30 Sept 2015 was analysed. A total of 46044 patients were included in the study. Diagnoses were made on clinical grounds supported by relevant investigations as required.

RESULTS

Non-infective dermatoses (63%) were the commonest dermatoses in our study. This was followed by infective & parasitic dermatoses (37%). Overall, fungal infections (19.91%) were the leading cause of morbidity, followed by eczema (12.05%), acne (10.69%), pigmentary disorders (8.03%), pyoderma (6.98%), parasitic dermatoses (5.23%) and others (37.11%). Maximum dermatological morbidity was seen in 21–30 years age group (27.80%), followed by 11–20 years (18.96%) and 31–40 years (18.50%). More than half (58.46%) belonged to productive age group of 21–50 years.

CONCLUSION

A significant proportion of dermatological morbidity (58.46 %) occurred in the productive age group of 21–50 years. Preventable infective dermatoses still contribute to about 37% of the cases. Health education of the general public and training of primary care physicians and general practitioners, in the management of common dermatoses, may help in reduction of prevalence of preventable dermatoses.

KEYWORDS

Infective Dermatoses, Non-infective Dermatoses, Pattern, Uttarakhand.

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INTRODUCTION: It is common knowledge that pattern and prevalence of dermatological morbidity varies from country to country and in different parts within the same country. It is particularly so in our country where pattern and prevalence are influenced by interplay of diverse ethnic, social, economic, climatic, religious and cultural factors.⁽¹⁾

Knowledge of pattern of skin diseases, in a particular geographical region, is important both for health professionals and administrators for proper health planning and its execution.

A large number of studies are available in the literature outlining common dermatoses prevalent in different parts of India.⁽²⁻¹¹⁾ However, information on pattern of skin disease in Uttarakhand, a state of India, which came into being in year 2000, is scanty. It was, therefore, planned to study the pattern of skin diseases, in patients attending Dermatology Outpatients Department of Himalayan Institute of Medical Sciences, Dehradun, a major tertiary care centre and teaching hospital, situated in the foot hills of Garhwal Himalayas, in Uttarakhand.

MATERIAL AND METHODS: The study was carried out at Himalayan Institute of Medical Sciences, Dehradun, one of the major referral centres and teaching hospital, for Garhwal region of Uttarakhand, and adjoining districts of western Uttar Pradesh.

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Corresponding Author:

Dr. Shiv Darshan Singh Rawat,
#14, SBI Colony, Near Doon Enclave,
Shimla Bypass Road, PO Majra,
Dehradun-248171, Uttarakhand.
E-mail: rawat.sds@gmail.com
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Outpatient registers of Department of Dermatology, Venereology & Leprosy, containing information on age, sex and diagnosis of patients were analysed, retrospectively, for a three year period, from 01 Oct 2012 to 30 Sept 2015, after obtaining institutional ethical clearance and anonymising the data. All cases had been diagnosed by consultants with postgraduate qualification in Dermatology, Venereology and Leprosy. Diagnosis was primarily clinical, supported by relevant investigations as required. Cases of leprosy and sexually transmitted infections were not included in the study. Various dermatoses seen were categorised into 2 broad groups of infective and non-infective dermatoses, which were further subdivided into 5 and 15 subgroups respectively.

RESULTS: A total of 46044 new patients, with various dermatological disorders, were seen during the study period. The age and sex distribution of these patients is shown in Table - 1. Age varied from 28 days to 94 years. There was a male preponderance with total 26899 (58.42%) males, compared to 19145 (41.58%) females, with a male to female ratio of 1.4:1. Maximum dermatological morbidity was recorded in 21-30 years age group with 12802 (27.80%) patients, followed by 11-20 years and 31-40 years age groups, with 8728 (18.96%) and 8520 (18.50%) cases,

respectively. A total of 26918 (58.46%) patients belonged to productive age group of 21-50 years.

The pattern of skin diseases seen is shown in Table - 2. Non-infective diseases, with 29010; 63% cases, were major cause of dermatological morbidity in our study. In this group, eczemas accounted for 5550, 12.05% of all cases; followed by acne 4920, 10.69%; pigmentary disorders 3696, 8.03%; papulosquamous disorders 2208, 4.80%; urticaria 1986, 4.31%; and alopecia 1452, 3.15% cases. Photodermatoses 1374, 2.98%; skin tumours 564, 1.22%; drug reactions 474, 1.03%; collagen disorders 282, 0.61%; genodermatosis 264, 0.57%; vasculitis 156, 0.34%; bullous disorders 114, 0.25%; and nail disorders 102, 0.22% contributed the rest.

Infective and parasitic diseases accounted for 17034, 37% of all dermatoses. Fungal infection with 9168, 19.91% cases, was the commonest infection and, also, single largest cause of dermatological morbidity in our study. A total of 3216, 6.98% cases of pyoderma and 2130, 4.63% cases of viral infections were recorded. Infestations with arthropod parasites accounted for 2406, 5.23% cases. A total of 5868, 12.74% patients were grouped under miscellaneous category.

| Age (Years) | Sex | | Total | Percent |
|--------------|-----------------------|-----------------------|--------------|-------------|
| | Male | Female | | |
| 0-10 | 1902 | 1404 | 3306 | 7.18% |
| 11-20 | 5118 | 3610 | 8728 | 18.96% |
| 21-30 | 7458 | 5344 | 12802 | 27.80% |
| 31-40 | 5044 | 3476 | 8520 | 18.50% |
| 41-50 | 3120 | 2476 | 5596 | 12.15% |
| 51-60 | 2508 | 1708 | 4216 | 9.16% |
| 61-70 | 1256 | 884 | 2140 | 4.65% |
| 71-80 | 474 | 216 | 690 | 1.50% |
| 81-90 | 18 | 24 | 42 | 0.09% |
| 91 and above | 01 | 03 | 04 | 0.01% |
| Total | 26899 (58.42%) | 19145 (41.58%) | 46044 | 100% |

Table 1: Age and Sex Distribution of the Patients

| S. No. | Diseases | Number of patients | Percent |
|--------|--|--------------------|---------------|
| 1. | Infective and parasitic Dermatoses: | | |
| | Pyoderma | 3216 | 6.98% |
| | Cutaneous tuberculosis | 114 | 0.25% |
| | Fungal infections | 9168 | 19.91% |
| | Viral infections | 2130 | 4.63% |
| | Parasitic Dermatoses | 2406 | 5.23% |
| | Total | 17034 | 37.00% |

| | | | |
|---------------|----------------------------------|--------------|-------------|
| 2. | Non-infective Dermatoses: | | |
| | Eczemas | 5550 | 12.05% |
| | Photodermatoses | 1374 | 2.98% |
| | Drug reactions | 474 | 1.03% |
| | Papulosquamous disorders | 2208 | 4.80% |
| | Bullous disorders | 114 | 0.25% |
| | Vasculitis | 156 | 0.34% |
| | Collagen Disorders | 282 | 0.61% |
| | Genodermatoses | 264 | 0.57% |
| | Pigmentary disorders | 3696 | 8.03% |
| | Acne | 4920 | 10.69% |
| | Alopecia | 1452 | 03.15% |
| | Nail disorders | 102 | 0.22% |
| | Urticaria | 1986 | 4.31% |
| | Skin Tumours | 564 | 1.22% |
| Miscellaneous | 5868 | 12.74% | |
| | Total | 29010 | 63% |
| | Grand Total | 46044 | 100% |

Table 2: Pattern of Skin Diseases

DISCUSSION: Uttarakhand, a hilly state, is situated in the north western part of India. It is administratively divided into two divisions, namely Garhwal and Kumaon. It has a total geographical area of 53483 sq. km., of which only 7448 sq. km. is plain. The area under forest is 34651 sq. km. Temperature varies from sub-zero levels to more than 40^o c, depending on altitude of the place and season. Average rainfall is 1631 mm and average relative humidity 76%, which may go beyond 90%, in plains like Doon valley, during rains. Density of population is 189 per sq. km. and literacy rate is 78.80%. Agriculture, animal husbandry and service in defence forces, are major occupations of the region.

Dehradun, the capital city of state, is located in Doon valley, in the foothills of the Garhwal Himalayas. Like in many other studies.^(2-4,12) male preponderance was observed in our study too, with male to female ratio of 1.4:1.

Maximum dermatological morbidity of 27.8% was noted in young age group of 21-30 years. Higher prevalence, in younger people, has also been reported in other studies.^(2,3,5,12) Majorly of the patients, in our study, were of non-infective dermatoses (63%), compared to only 37% cases of infective dermatoses. Predominance of non-infective dermatoses was also noted in a study, on pattern of skin diseases, from Kumaon region of Uttarakhand.⁽²⁾

Eczemas with 5550, 12.05% cases, constituted a major group among non-infective dermatoses. The contributory factors could be an agricultural economy, rapid industrialisation and increased exposure to chemicals and sensitizers. Eczemas have emerged as major non-infective disorders with prevalence varying from 14% to 39.2% in different studies.^(3,4,12) A common skin disorder in various studies, acne accounted for 10.69% of patients in our study, nearly the same (10%) as reported for Kumaon region of

Uttarakhand (2). In other studies, prevalence of Acne varied from 1.9 – 17.7%. (3, 4, 7). Pigmentary dermatoses was third commonest non-infective dermatoses with a prevalence of 8.03%. Other studies have reported a prevalence ranging from 2.9 to 13.9%. (3, 4, 5, 12). Papulosquamous disorders, urticaria, alopecia & photodermatoses comprised of 4.80%, 4.31%, 3.15% and 2.98% cases respectively. Skin tumours, drug reactions were seen in 1.22% and 1.03% cases.

Collagen disorders, genodermatoses, vasculitis and autoimmune bullous disorders recorded a low prevalence of 0.61%, 0.57%, 0.34% and 0.25% respectively, similar to other studies.^(2,5-7,8) Morbidity due to infective dermatoses was 37% in our study, though much higher prevalence of 59.1%, has been reported in a study from Allahabad.⁽³⁾ Fungal infections were commonest and accounted for 19.91% cases in our study. Heat and high humidity, particularly in sub Himalayan region and adjoining plains, agricultural activities, inadequate and wrong treatment are some of the contributory factors. High prevalence of fungal infections varying from 10.7 to 54.52% has been reported in a large number of studies from across India.^(2-7,9)

A low prevalence of pyoderma and viral infections, at 6.98% and 4.63%, respectively, was found in our study. Reasons for the same may be early treatment by primary care physician or general Practitioner, high literacy, easy availability of medicines and self-treatment. Parasitic dermatoses including scabies had a prevalence of 5.23%.

CONCLUSIONS: As this is a hospital based study, the data obtained can't be considered to be representative of the prevalence of the dermatoses in the general population. However, the study does point toward common preventable

skin diseases which predominantly affect individuals in productive age group. Health education and early treatment, therefore, can be an effective tool to curb their spread and reduce the associated morbidity and improve the health standards of the population.

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