

Pattern of Skin Diseases in Rural India: A Hospital-Based Study

Vinita Gupta

Associate Professor, Department of Skin and VD, SGT Medical College and Research Institute, Budhera, Gurgaon, Haryana, India

Abstract

Background: Pattern of skin diseases varies from one country to another and even in different parts within the same country. This is more so common in a country like India that experiences a wide variation in its customs and religions, racial constitution, geographic factors, social and hygienic standards, occupations, and socio-economic conditions.

Aim: The objective of our study was to know the clinical pattern of skin diseases in rural sector of India.

Materials and Methods: All newly diagnosed cases attending outpatient department of Skin and VD, SGT Medical College, Gurgaon during 1 year period between 1st February 2014 to 31st January 2015 were included in the study. Diagnosis was made on clinical basis and lab investigations were restricted to the cases where it carried diagnostic importance.

Results: A study was conducted on 7252 tudy was who attended the Skin and VD outpatient department of SGT Medical College during the period of 1 year. Females were found to be most commonly affected (M:F = 46.6:53.4). Age group between 30 and 44 years carried maximum incidence (29.19%). All disorders were broadly classified into infective (38.19%), non-infective (47.98%) and miscellaneous dermatoses (13.83%). Eczema (17.9%) and fungal infections (17%) came out to be the top two most common disorders.

Conclusion: Our study found a higher incidence of non-infective dermatoses than infective dermatoses. Eczema and fungal infections formed the largest group in their respective categories.

Key words: Dermatitis, Eczema, Incidence, Skin diseases

INTRODUCTION

Skin diseases affect all ages from neonate to the elderly. It causes harm in a number of ways and can have a profound effect on both the individual and the community. It can lead to significant morbidity due to disfigurement, disability or symptoms such as intractable itch, and though rare even death from metastatic skin cancer, TEN, pemphigus.

Pattern of skin diseases vary from country to country. Even in the same country it differs from region to region.

Types of skin diseases are influenced by various factors like genetic, race, religion, occupation, nutrition, habits etc. Geographical factors such as season and climate also contribute to the increased prevalence of certain type of skin disorder in a particular area. The direct effect includes sunshine, heat, cold, humidity - all contributing to what has been described as metreobiology of the skin. India is such a country where wide variation in climate, socio-economic status, religion, and customs is quite prevalent in different parts of the country. In developing countries, other than hot and humid climatic condition, low hygiene, poor access to water, overcrowding, high interpersonal contact also play significant etiological role for certain skin diseases like pyoderma, scabies, fungal infection.¹⁻⁴

Aims

The present study was conducted with an idea to know the clinical pattern of skin diseases in rural sector of India.

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Corresponding Author: Dr. Vinita Gupta, H. No 656, Sector 4, Urban Estate, Gurgaon, Haryana - 122 001, India. Phone: +91-9873627241. E-mail: vinitagupta4@gmail.com

MATERIALS AND METHODS

The present study was undertaken in the department of Skin and VD, SGT Medical College, Budhera, Gurgaon, India.

Study Population

The study group comprises 7252 he studs attending the Skin and VD outpatient department, SGT Medical College and Hospital, Budhera during the period of February 2014 to January 2015 and the cases referred from the department of medicine, surgery, Gynecology, pediatrics, orthopedics, and oncology. The skin diseases were grouped into infective and non-infective dermatoses.

Selection was on the basis of following criteria:

1. Inclusion criteria: All newly diagnosed cases presenting with skin diseases, all ages and both sexes, with parent/guardian giving verbal consent for the study.
2. Exclusion criteria: Patients treated outside this referral hospital and old cases were not included. Cases with doubtful diagnosis were also excluded from the study.

All the cases were subjected to thorough history taking including name, age, sex, address, religion, economic status of family along with chief complaints, total duration of disease, related past, family and treatment history, complete general physical, local and systemic (where necessary) examination.

Routine investigations were carried out in all the cases, while special investigations like Tzanck smear (cytology), bacterial smear and culture, histopathological examination, and immunofluorescence study were restricted to only few cases where they carried diagnostic importance.

RESULTS

A total of 7252 (only new patients) patients were included in the study conducted over a period of 1 year, of which 3873 (53.4%) were females and 3379 (46.6%) were males. All disorders were broadly classified into infective (38.19%), non-infective (47.98%), and miscellaneous dermatoses (13.83%). Disease-related incidence has been given in (Table 1a and b). Most common dermatoses was found to be eczema (17.9%), followed by fungal infections (17%), acne (8%), and pyoderma (7.7%). Among the non-infective dermatoses, eczema (17.9%), acne (8%) and urticaria (5.5%) constituted top 3 most common dermatoses, whereas fungal infections (17%), pyoderma (7.7%), and scabies (5.7%) constituted most common infective dermatoses.

Maximum number of patients reported in the age group of 30-44 years (29.19%) followed by 15-29 (28.29%) years. Females outnumbered males in all age groups except those under 14 years of age and those between 30 and 44 years where males were predominantly involved (Table 2).

Table 1a: Incidence of non-infective dermatoses

Disease	Number of patients	Percentage
Acne	580	8
Ecema	1298	17.9
Urticaria	399	5.5
Photodermatitis	232	3.2
Melasma	225	3.1
Psoriasis	116	1.6
Vitiligo	65	0.9
Pityriasis alba	44	0.6
Alopecia	72	1
Skin tags and benign appendegial lesions	50	0.7
Insect bite	232	3.2
Drug reactions	87	1.2
Vesiculobullous diseases	6	0.08
Collagen vascular diseases	22	0.3
Lichen planus	51	0.7
Total	3479	47.98

Table 1b: Incidence of infective dermatoses

Disease	Number of patients	Percentage
Fungal infections	1233	17
a. Dermatophytes	863	11.9
b. Pityriasis versicolor	312	4.3
c. Candidiasis	58	0.8
Scabies	413	5.7
Pyoderma	559	7.7
Impetigo	94	1.3
Viral infections	203	2.8
a. Varicella	7	0.1
b. Herpes simplex	29	0.4
c. Herpes zoster	87	1.2
d. Molluscum	22	0.3
e. Warts	58	0.8
Cutaneous tuberculosis	3	0.04
Hansens disease	4	0.05
STD's	261	3.6
Total	2770	38.19
Miscellaneous (including both infective and non-infective dermatoses)	1003	13.83
Total	3773	52.02

STD: Sexually transmitted diseases

Table 2: Incidence in different age groups

Age group	Number of males (%)	Number of females (%)	Total number of patients (%)
<~14	633 (50.64)	617 (49.36)	1250 (17.24)
15-29	894 (43.57)	1158 (56.43)	2052 (28.29)
30-44	1105 (52.2)	1012 (47.8)	2117 (29.19)
45-59	534 (41.85)	742 (58.15)	1276 (17.6)
60-74	187 (37.17)	316 (62.82)	503 (6.94)
>~75	26 (48.15)	28 (51.85)	54 (0.74)
Total	3379 (46.6)	3873 (53.4)	7252 (100)

Eczema was the most common disorder found in both males and females, whereas acne and pyoderma were predominantly reported in females. Fungal infections were more commonly found in males while urticaria and scabies was almost equally common in both sexes.

DISCUSSION

Females outnumbered males in our study (M/F = 46.6/53.4). Although most studies have reported female preponderance,^{5,6} others have reported male preponderance.⁷

Age group of 11-30 years was reported to have maximum incidence in a study from Allahabad,⁸ while other studies reported maximum incidence in age groups of 20-30 and 30-40 years.^{6,9} We found maximum incidence of skin diseases in the age group of 30-44 years (29.19%) followed by 15-29 (28.29%) years. This is very much similar to study by Symvoulakis *et al.*¹⁰

The majority of the male patients were in the age group of <14 (50.64%) and the majority of female patients were in the age group of 15-29 years (56.43%). Other study on pattern of skin diseases conducted in rural India also reported similar figures.⁶

Most of earlier studies have reported higher incidence of non-infective dermatoses,^{1,4,11,12} as in our study, but few have also reported infective dermatoses to carry higher incidence than non-infective dermatoses.^{5,7}

In this study, eczema emerged as the single largest group of disorders, closely followed by fungal infections. Similar finding has been reported by other authors,^{4,5,7,10,11} while few have found fungal infections to be the most common dermatoses.^{1,4,5,7,8,13} This can be attributed to the climatic differences between different geographical areas. Similarly in our study, maximum cases of fungal infections were reported during rainy season between the months of June to September, heat and humidity being the important factors contributing to their higher incidence. Commonest fungal infection was found to be dermatophytosis, followed by pityriasis versicolor and candidiasis, which is again similar to study conducted in Imphal.⁴

Acne, though was one among top 5 dermatoses to be reported carried an individual low incidence of 8%, which can be attributed to the fact that most acne patients are attracted to private clinics. This can be supported by studies carried in private set ups which have reported acne to be the most common dermatoses encountered.⁹

Relatively higher incidence of insect bite cases was noted as compared to other studies, which can be attributed to the proximity of this college to agricultural land and lack of use of various physical barriers like mosquito net and pest control measures by the people. This factor has been supported by various earlier studies.^{14,15}

Hansen's disease and cutaneous tuberculosis carried a low incidence, similar to most other studies conducted in different parts of the country.^{4,12} This can be attributed to the fact that these patients mainly attend either government hospitals or leprosy centers and DOT centers where MDT and ATT are distributed free of cost.

Low incidence of STD's can be attributed to the social stigma attached to these problems which force the patients either to hide their problem or to step into private clinics.⁴

CONCLUSION

Our study found a higher incidence of non-infective dermatoses than infective dermatoses. Eczema and fungal infections formed the largest group in their respective categories.

Since females and young adults were found to be mostly affected, nature of occupation, living conditions, lack of awareness all contribute to an increasing burden of skin diseases in society. Role of public awareness regarding personal and community hygiene and timely reporting of skin disease is of great importance for reducing skin diseases burden and improved quality-of-life.

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