

Pattern of dermatological disorders in a private skin clinic of Rohilkhand region in India

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Abstract *Objective* To document the pattern of skin diseases in the Rohilkhand region.

Methods We included 2556 consecutive new patients coming to private skin clinic over a period of three years. Skin diseases were diagnosed on the basis of classical clinical morphology with appropriate investigations.

Results Out of 2556 patients, 1480 were males and 1076 females. Acne was the most common disorder followed by fungal and bacterial infection. Infectious diseases i.e. fungal, bacterial, viral and parasitic constituted about 27.3% of the total patients and rests were noninfectious diseases. Age group 21-30 had the maximum number (32.7%) of patients followed by 11-20 (23.7%) and 31-40 (17.3%) age groups, respectively. Only ten common diseases or diseases group constituted more than 2/3 of the total patients (68.5%).

Conclusion Higher prevalence of non-infective disorders was seen compared to other studies. Infective diseases like fungal infection and scabies were seen significantly more commonly in males while acne, melasma and urticaria were seen significantly more common in females.

Key words

Skin diseases, pattern, infections, male, female.

Introduction

The pattern of skin diseases varies from one country to another and across different parts of the same country.¹ This is more so, in India, where customs, religions, languages, climate and socio-economic conditions vary across different parts of the country. Due to lack of awareness, patients may not report for treatment of dermatological disorders unless compelled by the severity of the symptoms. This is especially more important in private skin clinics.

A number of workers have reported different patterns of skin diseases in different geographical areas and set-ups.²⁻¹² No Indian study is available to find out what exactly is the pattern of skin diseases among the patients reporting to skin OPD in private skin clinic and more so, there is no study which describes the difference of distribution of diseases between males and females. We report pattern of skin diseases observed at a private set-up in Rohilkhand area of India where previously no such studies have been done.

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Methods

We included 2556 consecutive new patients coming to private skin clinic. Over a period of three years, we recorded the patient details in

printed proforma. Relevant clinical history was elicited, and a thorough dermatological examination of the patients was performed. Skin diseases were diagnosed on the basis of classical clinical morphology with appropriate investigations and histopathological examination as required. Diseases were arranged in ten yearly age group wise distributions to get their age group wise pattern. After 3 years (March 2010-March 2013), we analysed the data using SPSS 15.0 Evaluation version.

Results

Two thousand five hundred and fifty six consecutive patients were enlisted in the study; Out of these 1480 were males and 1076 females. **Table 1** gives the age wise distribution of the study group. Males presented at significantly higher age than females.

Table 2 shows that acne was the most common disorder seen in the OPD followed by fungal and bacterial infection. In total infectious diseases i.e. fungal, bacterial, viral and parasitic constitute about 27.3% of the total patients and rests were non infectious diseases. For better understanding diseases were also arranged in disease group like infectious diseases, papulosquamous disorder, pigmentary disorders etc. **Figure 1** shows the disease group distribution.

Age group 21-30 had the maximum number (32.7%) of patients followed by 11-20 (23.7%) and 31-40 (17.3%) age groups, respectively. In the first decade of life atopic dermatitis (14.3%)

Table1 Patients’ age and sex distribution.

Patients	N (%)	Mean age (years)
All	2556 (100)	28.57±14.59
Male	1480 (57.9)	29.2±15.23*
Female	1076 (42.1)	27.58±13.60

*Independent sample t test *p value* = 0.003

Table2 Distribution of disease in study patients.

	Males	Females	Total
Acne	207	236	443
Fungal infection	240	93	333
Bacterial infection	88	60	148
Melasma	45	90	135
Light eruption	73	59	132
Contact dermatitis	73	47	120
Psoriasis	71	47	118
Scabies	86	31	117
Urticaria	48	54	102
Hair disorder	54	48	102
Viral infection	68	32	100
Vitiligo	45	27	72
Postinflammatory hyperpigmentation	39	30	69
Lichen simplex chronicus	41	23	54
Rosacea	16	35	51
Lichen planus	29	20	49
Atopic dermatitis	26	13	39
Postinflammatory hypopigmentation	22	15	37
Psychosexual disorders	36	0	36
Drug rash	19	11	30
Other			
Papulosquamous disorders	11	8	19
Ichthyosis	14	5	19
Pityriasis rosea	9	7	16
Pruritus	8	6	14
Pityriasis alba	9	5	14
Collagen vascular disorder	5	9	14
Autoimmune bullous disorder	7	4	11
Seborrheic dermatitis	5	3	8
Other disease	86	68	154

was the most common disease followed by bacterial (13.3%) and fungal infection (8.7%). In second and third decade, acne was the most common disease (38.4% and 21.6%, respectively) followed by fungal infection (8.7%, 14.6%, respectively). In the fourth decade, fungal infection was the most common disease followed by melasma and light eruptions. In the fifth decade fungal infection was the most common disease followed by psoriasis and light eruptions. In the sixth decade

Table 3 Age groups with common skin diseases in that age group.

Age group (years)	N	Most common disease with percentage of total patients in age group	Second common disease with percentage of total patients in age group	Third common disease with percentage of total patients in age group
1-10	196	Atopic dermatitis 14.3%	Bacterial infection 13.3%	Fungal infection 8.7%
11-20	606	Acne 38.4%	Fungal infection 8.7%	Hair disease 4.8%
21-30	835	Acne 21.6%	Fungal infection 14.6%	Melasma 7.3%
31-40	441	Fungal 16.1%	Melasma 11.3%	Light eruption 7.7%
41-50	245	Fungal 17.6%	Psoriasis 12.2%	Light eruption 9.8%
51-60	164	Fungal 14.0%	Contact dermatitis 11.6%	Psoriasis 7.3%
61-70	52	Contact dermatitis 9.6%	Lichen simplex chronicus 9.6%	Light eruption 9.6%
71-80	12	Viral infections 25.0%	Contact dermatitis 16.7%	Scabies 16.7%
81-90	5	Contact dermatitis 40%	Pruritus 20%	Ichthyosis 20%

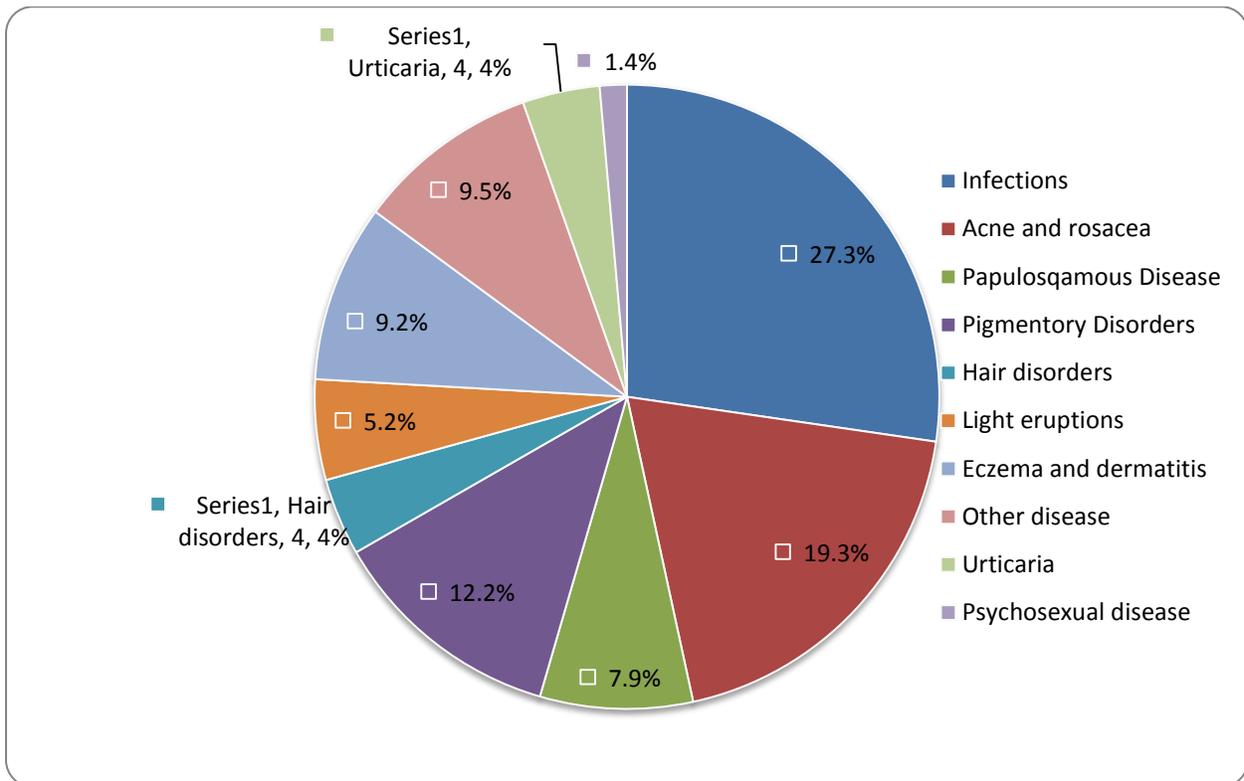


Figure 1 Distribution of diseases in groups.

fungal infection was the commonest disease followed by contact dermatitis and psoriasis. In the seventh decade contact dermatitis was the commonest disease followed by lichen simplex chronicus and light eruptions. Very few patients were seen in eighth and ninth decade of life.

Only ten common diseases or diseases group as mentioned in **Figure 1** constitute more than 2/3 of the total patients (68.5%). Acne was the most common dermatological disorder seen in the

study, followed by fungal infection and bacterial infections, respectively. Melasma, light eruptions, contact dermatitis, psoriasis, scabies, urticaria, and hair diseases also came in top ten diseases. Acne, melasma and urticaria were significantly more common in females while fungal infection and scabies were significantly more common in males. In other common diseases gender wise significant difference of occurrence was not seen.

Discussion

The pattern of skin diseases in India is influenced by the developing economy, and level of literacy, social backwardness, varied climate, industrialization, access to primary health care, and different religious, ritual and cultural factors.¹³

In our study 57.9% patients were males showing male preponderance as shown by most of the other similar studies^{3,5} but some studies also reported female preponderance.⁴ Patients in their second and third decades formed the largest group (56.4% of the total patient) of patients in our study. Other studies have reported prevalence rates ranging from 37% to 51.17% in similar age groups.^{3,4,9,13}

The prevalence of infective disorders has outstripped that of noninfective disorders in some studies, varying from 42.68% to 89.72%.^{3,4,9,10} However, some other studies have reported a higher prevalence of non-infective disorders, varying from 53.15% to 58.07%.^{2,5-8} In our study even higher prevalence of non-infective disorders (62.7%) was seen. This variance could possibly be due higher infection rate in poor patients presenting in government hospitals and medical colleges. Among the infective conditions, while fungal infections was the most common disorder in most studies including ours 13.0%, varying in prevalence from 12.8% to 46.25%,^{3-5,7-11} pyodermas were reported as the largest group in isolated studies.^{6,12} Higher prevalence of fungal infections is attributed to hot and humid climatic conditions especially in the long summer season.

Among the non-infective diseases, acne was the most common condition seen in 17.3% of the patients which is much higher than seen in the previous studies (4%¹⁴-10%¹⁵). In most of the

previous studies eczema has been seen as the largest group among the non-infective diseases, prevalence varying from 16.17% to 33.93%.³⁻¹¹ but in our study we have seen eczema only in 9.2% of the patients which is much lower percentage compared to other studies.

We also tried to provide information about common diseases in different age group for e.g. highest number of patients presented in their third decade 32.7% followed by second decade 23.7%. Acne was the commonest diseases in both decades followed by fungal infection. This type of information was not provided in earlier studies. Fungal infection was the commonest disease seen in fourth, fifth and sixth decades which indicates about the long hot and humid weather in this part of the country.

We also compared the distribution of common diseases between male and female patients for e.g. infective diseases like fungal infection and scabies was seen significantly more common in males compared to females which may be due to their occupation and higher chances of getting infection from others. Acne, melasma and urticaria were seen significantly more common in females compared to males.

In our study we have seen a higher percentage of patients with diseases of cosmetic concern like acne, rosacea, hair disorders and pigmentary disorder compared to earlier studies done in government hospitals and medical colleges.

To conclude, this study is the first of its kind done in Rohilkhand region especially in a private clinic. This study can help the newly practicing dermatologist in developing their practice.

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