



THE OCCURENCE OF SKIN DISEASES AND PRESCRIBING PATTERNS OF DRUGS IN AN DERMATOLOGY OUT PATIENT CLINIC

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ABSTRACT

The aim of the study is to determine the patterns of skin diseases among the patients who visited the ambulatory dermatology clinic. It involved the study on prescribing patterns on those patients with skin disorders. A total of 529 patients with skin diseases were selected during the one month study period. Out of this, 324 patients were males and 205 patients were females. The majority of patients were in the age group of 21-30 years. The prevalence of skin disease was found to be highest which includes scabies (23.81%), followed by fungal infection (22.49%), dermatitis (13.98%), acne (9.64%),

melasma (8.50%) and alopecia (7.93%). The commonly prescribed drugs were antihistamines (23.4%) followed by corticosteroids (14.25%), emollients (11.12%), antifungal (9.23%) and antibiotics (9.09%). Antifungal - ketoconazole and fluconazole were found to be used widely. It was concluded that scabies was most prevalent and antihistamines were the most commonly prescribed drugs.

KEYWORDS: Skin Diseases, Patterns, Prescribing Trends.

INTRODUCTION

Skin diseases in developing countries have a serious impact on people's quality of life and bring out significant burden to the nations. It affects more than 60% of the general population.^[1] The prevalence of skin disease in any region or country depends on various factors, such as genetics, racial constitution, social and hygienic standards, customs and occupations. Transmissible skin diseases are observed in people who are living under poor socioeconomic and unhygienic conditions.^[2] In India there is a significant incidence of

infectious disorders in rural communities because of underdeveloped economy and social backwardness.^[3] Ignorance on seriousness of the disease and improper medication worsens the condition.^[4] Medicines can induce skin reactions and some are potentially life threatening.^[5] Up to 80% of the populace suffering from skin problems may not seek medical help.^[6] The most common approaches include skin maintenance care techniques, topical anti-inflammatory agents, systemic antihistamine, topical or systemic antibiotics and selectively, systemic corticosteroids.^[7]

Most of the Indian population belongs to low socio economic status and hence do not bother about the seriousness of skin problems. It is believed that half of the population does not take proper medication, even after consulting health care specialists. This ignorance leads to more severe complications (14). Our study aims to determine the patterns of skin diseases and drug prescribing trends among the patients who visit the dermatology outpatient hospital.

METHODOLOGY

The study was conducted at the outpatient clinic in a city of telangana. It is a private hospital centrally located in karimnagar. This hospital provides well established health care services for patients with different type of skin diseases.

It is a non-interventional, prospective study in which data of 529 outpatients with skin disease was collected from a period of one month. Patients under all ages were included in the study. A specially designed data collection form was used for each patient separately which included age, gender, source of referral, clinical symptoms, diagnosis and drug therapy management. Institutional ethics committee permission was obtained before initiating the study.

RESULTS AND DISCUSSION

Demographic Data: A total of 529 patients with skin diseases were enrolled in the study during the study period of one month. Out of this, 324 patients were males and 205 patients were females (Table.1). The majority of patients were in the age group of 21-30 years. The majority of the male patients were in the age group of 21-30 (29.62%) and the majority of female patients were in the age group of 11-20 years (29.75%) and 21-30(29.26%). The data shows that skin diseases are of greater concern in teenagers and young adults. Where lot of attention and importance is given to appearances, hence the visits to dermatologists in that age group are more. Also acne is a very common problem of that age group.

Table. 1: Gender And Age Wise Distribution of Patients.

Age Group	Male (n=324)	Female (n=205)
0-10	25 (7.71)	19(9.26)
11-20	68 (20.98)	61 (29.75)
21-30	96 (29.62)	60 (29.26)
31-40	54 (16.66)	24 (11.70)
41-50	42 (12.96)	21 (10.24)
51-60	17 (5.24)	14 (6.82)
61-70	16 (4.93)	5 (2.43)
71-80	6 (1.85)	1 (0.48)

Type of Skin Diseases

Among the study population, skin diseases was found to be the highest which includes scabies 126 (23.81%), In this study, we observed fungal infections(22.49%), as the second most common disease. In sebaceous hair follicle disorders, acne seems to be 9.64% in 51 patients and 7.93% alopecia in 42 patients(Table 2). Papulo- squamous disorders like psoriasis accounts for 8 patients (1.51%) were also found. Similar findings were obtained from the study conducted in Mediterranean island and their report tells that psoriasis was the leading cause of dermatological consultation in account of papulo-squamous disease.^[9] Folliculitis, pigmentary disorder like vitiligo were also reported in this study. The overall presentation of allergic skin disorders was found to be more than half and the infectious disease was a quarter of total. This may be due to overcrowding, poor hygiene, and easiness of exposure to contagions.

Table. 2: Distribution of Patients According to Types of Skin Diseases.

Disease	No. of patients (n=529)	Percentage (%)
Alopecia	42	7.93
Psoriasis	8	1.51
Leprosy	5	0.94
Herpes zoster	4	0.75
Vitiligo	11	2.07
Dermatitis	74	13.98
PLE	9	1.70
Impetigo	6	1.13
Melasma	45	8.50
Acne	51	9.64
Eczema	19	3.59
Fungal infection	119	22.49
Scabies	126	23.81
Others	10	1.89

Skin Diseases- Gender Wise: The patterns of skin diseases vary between male and female. The commonest presentation according to the gender is presented in the Table 3. In this study, scabies, fungal infection and dermatitis was the most common skin disorder in both male and females. Similar findings were also observed from the study conducted by Goh CL *et al.*^[10] In sebaceous hair follicle skin disorders acne (18.04%) was higher in female patients compared to males (4.32%). Fungal infections are found in many patients probably due to hot and humid climate which cause increased sweating. The rate of pigmentary disorders are higher in females, while the hair disorders, dermatitis, parasitic disease and fungal infections are significantly higher in males.

Table. 3: Distribution of Patients According to Gender.

Disease	Male (n=324)	Percentage (%)	Female (n=205)	Percentage (%)
Alopecia	28	8.64	14	6.83
Psoriasis	8	2.46	0	0
Leprosy	3	0.92	2	0.97
Herpes zoster	3	0.92	1	0.48
Vitiligo	3	0.92	8	3.90
Dermatitis	45	13.88	29	14.14
PLE	5	1.54	4	1.95
Impetigo	5	1.54	1	0.48
Melasma	8	2.46	37	18.04
Acne	14	4.32	37	18.04
Eczema	11	3.39	8	8.90
Fungal infection	97	29.93	22	10.73
Scabies	94	29.01	32	15.60
Others	0	0	10	4.87

Distribution of skin diseases by age groups

The highest rate of skin disease by was observed in the age groups of 11-20, 21-30, and 31-40. Eczema and dermatitis was seen in almost all ages. Where, scabies was highest (30.95%) and (30.15%) in 11-20 and 21-30 years age group respectively and fungal infection (27.73%) in 21-30 years age group.. Acne vulgaris was mostly seen in 11-30 years age group. Skin infections like tinea infections (27.73%) and (25.21%) were most prevalent in age groups of 21-30 and 31-40 respectively . Psoriasis vulgaris (1.5%) and the pigmentary disorder like vitiligo (2%) were highest in 31-40 and 41-50 years age group respectively. Literature has indicated that psoriasis and vitiligo were considered the two dermatological disorders mostly affecting the quality of life of the patients.^[11] Table 4 demonstrates the complete distribution of skin diseases by age groups.

Table. 4: Distribution of Skin Diseases by Age Groups.

Disease	Age groups							
	0-10 (n=44)	11-20 (n=129)	21-30 (n=156)	31-40 (n=78)	41-50 (n=63)	51-60 (n=31)	61-70 (n=21)	71-80 (n=7)
Alopecia (n=42)	2 (4.76)	3 (7.14)	30 (71.42)	6 (14.28)	1 (2.38)	-	-	-
Psoriasis (n=8)	-	-	1 (12.5)	3 (37.5)	1 (12.5)	-	2 (25)	1 (12.5)
Leprosy (n=5)	-	-	-	2 (40.0)	1 (20.0)	-	2 (40.0)	-
Herpes zoster (n=4)	-	-	1 (25.0)	-	1 (25.0)	1 (25.0)	1 (25.0)	-
Vitiligo (n=11)	-	4 (36.36)	-	-	6 (54.54)	1 (9.09)	-	-
Dermatitis (n=74)	16 (21.62)	17 (22.17)	11 (14.86)	6 (8.10)	15 (20.27)	9 (12.16)	6 (8.10)	4 (5.40)
PLE (n=9)	-	-	1 (11.11)	2 (22.22)	3 (33.33)	1 (11.11)	2 (22.22)	-
Impetigo (n=6)	3 (50.0)	2 (33.33)	1 (16.66)	-	-	-	-	-
Melasma (n=45)	1 (2.22)	11 (24.44)	19 (42.22)	6 (13.33)	5 (11.11)	-	2 (4.44)	1 (2.22)
Acne (n=51)	-	32 (62.74)	19 (37.25)	-	-	-	-	-
Eczema (n=19)	-	1 (5.26)	2 (10.52)	8 (42.10)	4 (21.05)	3 (15.78)	1 (5.26)	-
Fungal infection (n=119)	5 (4.20)	20 (16.80)	33 (27.73)	30 (25.21)	20 (16.80)	6 (5.04)	4 (3.36)	1 (0.84)
Scabies (n=126)	17 (13.49)	39 (30.95)	38 (30.15)	15 (11.90)	6 (4.76)	10 (7.93)	1 (0.79)	-

Symptom Wise Distribution Of Patients

The symptoms among the study population were categorized in Table 5. Majority of the patients consulted the dermatology department with the complaints of itching (52.93%). A study from Netherlands showed a substantial proportion of patients with skin disease experience physical symptoms, with itch being reported by more than 50% of all patients.^[12] Second highest symptom was found to be lesion (13.9%), followed by 6% of discolouration, 4% of skin eruption, 7.9% of hair loss and 2% of white patches were reported in this study.

Table. 5: Symptom Wise Distribution of Patients.

Symptoms	No. of patients (n=529)	Percentage (%)
Discolouration	30	5.67
Itching	280	52.93
Skin eruption	24	4.53
Lesion	74	13.98
Hair loss	42	7.94
Scaling of scalp	5	0.94
White patches	12	2.26
Pain	12	2.26
Others	24	4.53
No symptoms	26	4.91

Affected Body Site: It was found that skin diseases mostly affected the areas of groin (30.13%). Allergic skin disease like dermatitis, eczema, and PLE were highest on arms, legs, hands, face and foot as mentioned in the Table 6. A study conducted by Richard D et al., also

reported that the dermatitis was diagnosed predominantly on the fore arm and upper arm.^[13] In fungal infections, mostly tinea is found to affect groin and *P. versicolor* in the neck region.

Table. 6: Distribution of patients according to the affected body sites.

Body site	No. of patients (n=529)	Percentage (%)
Arm	40	7.56
Leg	65	12.28
Groin	170	32.13
Face	70	13.23
Chest	20	3.78
Hand	20	3.78
Foot	15	2.83
Neck	22	4.15
Multiple Site	64	12.09
Others	43	8.12

Class of Drugs Prescribed: The prescribing pattern for skin diseases is categorized in Table 7. Out of a total of 1375 drugs prescribed, antihistamines (23.4%) were mostly used in this hospital followed by corticosteroids (14.25%), emollients (11.12%), antifungals (9.23%), antibiotics (9.09%) and The management of skin disease may depend on the duration of the diseased condition. Antihistamines, antibiotics and corticosteroids were widely used as these drugs may decrease skin inflammations, eliminate exacerbating factors and manage the itchy and dry skin. We found that the antihistamines were the most commonly prescribed drug category. The second commonly prescribed drugs were corticosteroidal preparations, antifungals which include ketoconazole and fluconazole followed by antibiotics and Antibiotics like Doxycycline and Mupirocin were prescribed more and in corticosteroid preparations, topical formulations were seen to be widely prescribed.

Table. 7: Class of Drugs Prescribed.

Class of drugs	No of drugs prescribed	Percentage of total drugs prescribed (%)
Antinfectives	44	3.20
Antihistamine	322	23.41
Corticosteroids	196	14.25
Antibiotics	125	9.09
Anti-infective with Corticosteroids	114	8.29
Antifungals	127	9.23
Vitamin	74	5.38
Emollients & skin Protectives	153	11.12
Analgesics	29	2.10
Lubricants	15	1.09
Moisturizer	20	1.45

Others	30	2.18
Total	1375	100

CONCLUSION

Our study has clearly defined the different types of skin disease among the patients attended to in the dermatology private outpatient clinic. The study reveals that the people in this region are more prone to skin disease and the incidence of skin disease among males was more. The majority of the patients were adults. We found that allergic skin disease and skin infections were more common in this area. Antihistamines, emollients, antifungals, corticosteroids and antibiotics were the most common class of drugs prescribed in this hospital. The study represents an overall estimation of the incidence of skin diseases. It is clearly understood that the prevalence of skin diseases is more in this region. This may be due to joint family, nature of occupation and living in unhygienic environments. A clinical pharmacist has enormous responsibility in creating public awareness regarding personal hygiene and healthy living is necessary to reduce the burden of skin diseases and for improved quality of life.

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