

EPIDEMIOLOGICAL STUDY OF DERMATOLOGICAL DISORDERS AT TERTIARY CARE CENTER

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ABSTRACT

Background: Skin disease are considered very upsetting, especially in younger age groups. The burden and type of any disease in particular geographical area depends on the genetic constitution of the individuals, their social background and nutritional and hygiene status. The prevalence of disease is depending upon environmental conditions and the quality of medical care provided to them. **Material & Methods:** The present retrospective study was conducted at department of dermatology of our tertiary care hospital. In this epidemiological study patients of age of both the genders who were consented were enrolled for the study. Clearance from Institutional Ethics Committee was taken before start of study. **Results:** The most common presenting symptom was skin infections present among 23.66% patients. After infections next common finding was eczema which was present among 168 (14%) patients which was followed by contact dermatitis among 128 (10.66%) patients, urticaria was found in 114 (9.5%) patients and xerosis in 96 (8%) patients followed by acne in 7.4% and infestations in 7.2% patients. Hair disorders was present in 5.6% cases and atopic dermatitis was present in 4.3% cases. Post inflammatory changes seen in 3.58% and vitiligo was present in 1.66% cases followed by P.alba in 1.16% cases. **Conclusion:** The climate, occupation, socio-economic status, gender and age of the patient were associated in the occurrence of skin diseases. Fungal diseases, eczema and contact dermatitis were seen more commonly and scabies was the most common infestation.

Key words: Fungal infections, Contact dermatitis, Acne.

INTRODUCTION

Skin disease are considered very upsetting, especially in younger age groups. The burden and type of any disease in particular geographical area depends on the genetic constitution of the individuals, their social background and nutritional and hygiene status. The prevalence of disease is depending upon environmental conditions and the quality of medical care provided to them (1). Since the spectrum of skin diseases is very wide the overall magnitude of disease burden depends upon age, gender, their regional distribution, prevalence and underlying

factors which are essential for the prevention programs (2).

Skin diseases have gained a lot of interest over the past decades because they are potentially preventable, controllable and prevalent worldwide. In 2013, skin diseases reported as the fourth leading disease among non-fatal disease burden globally and also accounts for 18th leading cause of disability-adjusted life years (DALYs) worldwide (3). However, skin diseases have low mortality rates therefore they were given less

attention and research time than other serious diseases. In the terms of morbidity, skin diseases possess a significant diseases burden to the community and imposing strain on health care services (4).

The incidence and pattern of skin disorders varies from country to country and even in geographical regions within the country due to ecological factors, social customs, genetics and hygienic standards. In developed countries, eczematous skin diseases are more prevalent and in developing countries infections and infestations are more prevent (5). Hence, we conducted present study to estimate the burden and pattern of skin diseases at our geographical study area.

MATERIALS & METHODS

The present retrospective study was conducted at department of dermatology of our tertiary care hospital. The study duration was of six months from January 2018 to June 2018. In this epidemiological study patients of age of both the genders who were consented were enrolled for the study. Clearance from Institutional Ethics Committee was taken before start of study.

Detailed clinical history with general physical examination was done and recorded in the proforma prepared for this study. The presenting complaints were noted in the chronological order. All patients who were thoroughly examined, their disease plotted, recorded and classified into specific group as per their disease criteria. No exclusion criteria was selected because it was only an epidemiological study.

Data analysis was carried out using SPSS v22. All tests were done at alpha (level significance) of 5%; means a significant association present if p value was less than 0.05.

RESULTS

In present study, we enrolled 1200 patients who were visiting dermatology OPD and gave consent for the study. Out of the 672 (56%) were males and 528 (44%) were females. Among total fungal infection was present in 204 (17%) patients, bacterial infection was found in 58 (4.8%) patients, viral infection was found in 22 (1.8%) patients and infestations was found in 86 (7.2%) patients. Among fungal infections tinea cruris was most common and present in 54 patients. Among bacterial infections impetigo was most common and present in 26

patients. Among viral infections warts was most common and present in 14 patients. Scabies was the most common manifestation. (Table 1)

Table 1: Distribution of study participants according to dermatological infections.

Infection		No. of patients
Fungal 204 (17%)	Tinea cruris	54
	Tinea corporis	33
	Tinea faciei	25
	Tinea pedis and mannum	16
	Onychomycosis	15
	Pityriasis versicolor	10
	Seborrheic dermatitis	51
Bacterial 58 (4.8%)	Impetigo	26
	Furuncle	19
	Folliculitis	13
Viral 22 (1.8%)	Herpes zoster	3
	Herpes simplex	1
	Molluscum contagiosum	4
	Wart	14
Infestation 86 (7.2%)	Scabies	73
	Pthirus capitis	10
	Pthirus pubis	3

In present study, the most common presenting symptom was skin infections present among 23.66% patients. After infections next common finding was eczema which was present among 168 (14%) patients which was followed by contact dermatitis among 128 (10.66%) patients, urticaria was found in 114 (9.5%) patients and xerosis in 96 (8%) patients followed by acne in 7.4% and infestations in 7.2% patients. Hair disorders was present in 5.6% cases and atopic dermatitis was present in 4.3% cases. Post inflammatory changes seen in 3.58% and vitiligo was present in 1.66% cases followed by P.alba in 1.16% cases. Psoriasis was present in 11 patients and pemphigus vulgaris present in 5 patients and melasma was present in 3 patients. (Table 2)

Table 2: Distribution study participants according to presenting complaints.

Presenting complaints	Number of cases (%)
Eczema	168 (14)
Contact dermatitis	128 (10.66)
Urticaria	114 (9.5)
Xerosis	96 (8)
Acne	89 (7.42)
Hair disorder	68 (5.66)
Atopic dermatitis	52 (4.33)
Post inflammatory changes	43 (3.58)
Vitiligo	20 (1.66)
P.alba	14 (1.16)
Psoriasis	11 (0.91)
Oral lesion	6 (0.5)
Nutritional disorder	6 (0.5)
Pemphigus vulgaris	5 (0.41)
Keratosis pilaris	4 (0.33)
Melasma	3 (0.25)
Keloid	2 (0.16)
Hypertrophic scar	1 (0.08)

DISCUSSION

In present study, we enrolled 1200 patients who were visiting dermatology OPD and gave consent for the study. Out of the 672 (56%) were males and 528 (44%) were females. In a study conducted by Grover et al among rural population of Allahabad found that the prevalence of skin disorders was seen more among females and prevalence was found more among 20-40 years of age group which was similar to the results of present study in which majority of population belongs to 20-40 years of age group (6).

In present study, among total fungal infection was present in 204 (17%) patients, bacterial infection was found in 58 (4.8%) patients, viral infection was found in 22 (1.8%) patients and infestations was found in 86 (7.2%) patients. Among fungal infections tinea cruris was most common and present in 54 patients. Among bacterial infections impetigo was most common and present in 26 patients. Among viral infections warts was most common and present in 14 patients. Scabies was the most common manifestation. In a study conducted by Jain et al showed similar findings to the present study and found that fungal diseases was the most common infection (13%), which was followed by

bacterial and viral infections and infestations (7). Similar results were also found in a study conducted by Rao et al, found that fungal diseases was the most common infection (22%), which was followed by bacterial and viral infections and infestations (8).

A study conducted by Verma S et al reported that worsening of the presenting symptoms was reported among few study participants due to self-medication and use of oral or topical steroid for prolonged time. Recurrence was also reported among few cases due to non-adherence of treatment. They reported that occupational history and climatic conditions were significantly associated with skin diseases (9). In present study, the most common presenting symptom was skin infections present among 23.66% patients. After infections next common finding was eczema which was present among 168 (14%) patients which was followed by contact dermatitis among 128 (10.66%) patients, urticaria was found in 114 (9.5%) patients and xerosis in 96 (8%) patients followed by acne in 7.4% and infestations in 7.2% patients. Hair disorders was present in 5.6% cases and atopic dermatitis was present in 4.3% cases. Post inflammatory changes seen in 3.58% and vitiligo was present in 1.66% cases followed by P.alba in 1.16% cases. Psoriasis was present in 11 patients and pemphigus vulgaris present in 5 patients and melasma was present in 3 patients.

In the present study out of 168 (14%) patients of eczema, discoid eczema was the most common and most commonly seen in middle age males. On the other hand, acral eczema was seen more commonly in females due to frequent exposure to soap and detergent. Similar results were found in a study conducted by Bhatia R et al on a study of skin diseases from occupational exposure (10). In the present study 7.4% patients of acne healing was seen which is followed by post acne scar. Similar results were found in a study conducted by Sharma R et al on a study of skin diseases and epidemiological assessment of acne vulgaris (11). Another study conducted by Kar et al concluded that skin disease associated with socioeconomic status, occupation, age and gender of the patients (12).

CONCLUSION

We concluded from the present study that the climate, occupation, socio-economic status, gender and age of

the patient were associated in the occurrence of skin diseases. Fungal diseases, eczema and contact dermatitis were seen more commonly and scabies was the most common infestation.

REFERENCES

1. Abd El Aal NH, Mostafa LA, Farag AS, Hassan SH. Epidemiological study of infectious skin diseases among Egyptian school children in urban and rural areas. *J Egypt Women's Dermatologic Soc.* 2013 Jan;10(1):42–6.
2. Vakirlis E, Theodosiou G, Apalla Z, Arabatzis M, Lazaridou E, Sotiriou E, et al. A retrospective epidemiological study of skin diseases among pediatric population attending a tertiary dermatology referral center in Northern Greece. *Clin Cosmet Investig Dermatol.* 2017 Apr;Volume 10:99–104.
3. Kelbore AG, Owiti P, Reid AJ, Bogino EA, Wondewosen L, Dessu BK. Pattern of skin diseases in children attending a dermatology clinic in a referral hospital in Wolaita Sodo, southern Ethiopia. *BMC Dermatol.* 2019 Dec 8;19(1):5.
4. Gaulding J V, Gutierrez D, Bhatia BK, Han X, Krajenta R, Neslund-Dudas C, et al. Epidemiology of Skin Diseases in a Diverse Patient Population. *J Drugs Dermatol.* 2018 Oct 1;17(10):1032–6.
5. Hay R, Bendeck SE, Chen S, Estrada R, Haddix A, McLeod T, et al. Skin Diseases. Disease Control Priorities in Developing Countries. The International Bank for Reconstruction and Development / The World Bank; 2006.
6. Grover S, Ranyal RK, Bedi MK. A cross section of skin diseases in rural Allahabad. *Indian J Dermatol.* 2008;53(4):179–81.
7. Jain S, Barambhe M, Jain J, Jajoo U, Pandey N. Prevalence of skin diseases in rural Central India: A community-based, cross-sectional, observational study. *J Mahatma Gandhi Inst Med Sci.* 2016;21(2):111.
8. Rao GS, Kumar SS, Sandhya. Pattern of skin diseases in an Indian village. *Indian J Med Sci.* 2003 Mar;57(3):108–10.
9. Verma S, Madhu R. The Great Indian Epidemic of Superficial Dermatophytosis: An Appraisal. *Indian J Dermatol.* 2017;62(3):227–36.
10. Bhatia R, Sharma V. Occupational dermatoses: An Asian perspective. *Indian J Dermatology, Venereol Leprol.* 2017;83(5):525.
11. Sharma R, Dogra S, Singh A, Kanwar A. Epidemiological patterns of acne vulgaris among adolescents in North India: A cross-sectional study and brief review of literature. *Indian J Paediatr Dermatology.* 2017;18(3):196.
12. Kar C, Das S, Roy AK. Pattern of skin diseases in a tertiary institution in kolkata. *Indian J Dermatol.* 2014 Mar;59(2):209.

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