

ORIGINAL ARTICLE

PATTERN OF SKIN DISEASES IN ABBAS INSTITUTE OF MEDICAL SCIENCES, MUZAFFARABAD

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Background: The pattern of skin diseases in an area is governed by a number of factors like climate, geography, personnel hygiene, overcrowding, nutritional and socioeconomic status, educational background and genetics. The objective of this study was to analyze the pattern of skin disorders in patients attending the Dermatology Outpatient Department of AIMS, Muzaffarabad. **Methods:** This was a hospital based descriptive study carried out at Dermatology Outpatient Department of AIMS, Muzaffarabad from 1st January, 2017 to 31st March, 2017. All patients presenting at the Dermatology Department OPD during this period were included after informed consent. The diseases were categorized as ten aetiological/pathological groups and frequencies of different disease groups were calculated and tabulated as Mean±SD using SPSS-21. **Results:** A total of 2,635 patients were included in the study. Over all the infections of the skin and subcutaneous tissue were the most common (1,043, 39.4%), followed by eczemas (538, 21%), disorders of glands (351, 13.3%), pigmentary disorders (263, 10%), and all other disorders of skin and subcutaneous tissue (440, 16.3%) in the total population of patients. **Conclusion:** Communicable skin diseases are prevalent skin disorders seen in Muzaffarabad and suburbs. Appropriate health services and training of health staff and public awareness is required to overcome this situation.

Keywords: pattern of skin diseases, infections, infestations

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INTRODUCTION

The pattern of skin morbidity in an area is governed by a number of factors like climate, geography, personnel hygiene, overcrowding, nutritional status, educational background, traditional taboos and socio economic conditions.¹ The prevalence of skin diseases in general population varies from 6.3% to 11.2%² in developing countries. Overcrowding, lack of basic amenities and poor hygiene play significant role in occurrence of various skin diseases.³

The pattern of skin diseases may differ from country to country and also within different geographical regions of the same country.⁴ It is also influenced by the distance needed to travel to reach the health care unit especially in hilly areas.⁵ Abbas Institute of Medical Sciences (AIMS) is the main tertiary care facility located in Muzaffarabad, Azad State of Jammu and Kashmir (AJK). Overall health facilities and recourses of communication/transportation are difficult and scarce. An in depth knowledge of the distribution and magnitude of skin problems is essential for proper understanding of the burden of various dermatological disorders in the community, and it helps in providing efficient health services to the population.⁶ However, hardly any study is available from AJK to understand the epidemiology of skin disorders. This study was conducted to have an understanding and baseline knowledge about the disease pattern and in this part of Kashmir to help to formulate a plan to counteract the

most prevalent diseases in the population and to create public awareness about prevention of such diseases.

MATERIAL AND METHODS

It was a hospital based descriptive study conducted at the Dermatology Outpatient Department of Abbas Institute of Medical Sciences, Muzaffarabad, AJK from 1st January, 2017 to 31st March, 2017. All patients of either sex presenting in Dermatology OPD were included after informed consent. Patients with inconclusive diagnosis were not considered for evaluation. Diagnosis was based on clinical examination and necessary investigations, e.g., complete blood count, urine analysis, liver and renal function tests, smear for LT bodies, and skin biopsies wherever indicated. The diseases were categorized into ten etiopathological groups and then frequencies were determined and analyzed.⁷ Descriptive analyses were done using SPSS-21.

RESULTS

A total of 2,635, (1,361 male and 1,274 female) patients were included in the study. Their age ranged from 2 days to 94 years (22.92±16.33 years). Most common presenting age group among males was 25–30 years and among females was 20–25 years. Over all the infections of the skin and subcutaneous tissue were the most common 39.4% (n=1,043), followed by eczemas 21% (n=538), disorders of glands 13.3% (n=351), pigmentary disorders 10% (n=263), and all other

disorders of skin and subcutaneous tissue were contributing 16.3% (n=440) in the total population of patients (Table-1). Among the infections of skin and sub cutaneous tissue, the most common was scabies 14.8% (n=392), followed by viral warts 2% (n=52). Fungal infections were 10.4% (n=274), viral infections 6% (n=160) and bacterial skin infections were 5.4% (n=141). Tinea dermatosis were the most common of all fungal infections, i.e., 7% (n=185) (Table-2). Of the total patients 6.2% (n=163) suffered from seborrhic dermatitis, and 8.3% (n=221) had acne (Table-3, 4). Melasma, chill blains and psoriasis were present in 5.9% (n=156), 2.3% (n=60), and 1.8% (n=49) (Table-5, 6, 7).

Table-1: Most common diseases in the study population (n=2,635)

Disease groups	Number of patients (n)	Frequencies %
Eczema	538	21
Infestations	468	17.6
Disorders of glands	351	13.3
Fungal infections	274	10.4
Disorders of pigmentations	263	10
Connective tissue/vascular/hypersensitivity	201	7.4
Viral infections	160	6
Bacterial infections	141	5.4
Disorders of keratinization	131	4.8
Nevoid diseases and genodermatosis	28	1
Miscellaneous	80	3.1
Total	2635	100

Table-2: Infestations and infections

Diseases	Number of patients (n)	Frequencies (%)
Infestations		
Scabies	392	14.8
Cutaneous leishmaniasis	45	1.7
Pediculosis	28	1
Plica polonica	3	0.1
Fungal infections		
Tenia pedis	48	1.8
Pytriasis versicolor	45	1.7
Tenia corporis	41	1.6
Tenia capitis	33	1.2
Tenia cruris	20	0.8
Tenia manum	19	0.7
Tenia facci	16	0.6
Onychomycosis	16	0.6
Paronychia	16	0.6
Candidiasis	12	0.5
Tenia in cognition	8	0.3
Viral infections		
Viral warts	52	2
Chicken pox	44	1.7
Herpes zoster	19	0.7
Molluscum contagiosum	17	0.6
Herpes simplex	16	0.6
Post herpetic neuralgia	6	0.2
Viral exanthum	3	0.1
Kaposi varicelliform eruption	3	0.1
Bacterial infections		
Folliculitis	43	1.6
Furuncle	43	1.6
Impetigo	28	1.1
Cellulitis	15	0.6
Lupus vulgaris	5	0.2
Ecthyema	4	0.2
Abscess	3	0.1
Total	1,043	39.4%

Table-3: different types of eczema

Diseases	Number of patients (n)	Frequencies (%)
Seborrhoeic dermatitis	163	6.2
Contact dermatitis	122	4.8
Atopic dermatitis	85	3.3
Pytriasis alba	26	1
Chronic actinic dermatitis	22	0.9
Hand eczema	18	0.7
Pompholyx	12	0.5
diaper dermatitis	12	0.5
Photo contact dermatitis	10	0.4
Prurigo nodules	7	0.3
Lichen simplex chronicus	6	0.3
Eyelid eczema	4	0.2
Stasis eczema	3	0.1
Perioral dermatitis	3	0.1
Perianal dermatitis	3	0.1
Breast eczema	3	0.1
Others	39	1.5
Total	538	21%

Table-4: disorders of glands and appendages

Diseases	Number of patients (n)	Frequencies (%)
Acne	221	8.3
Diffuse hair loss	41	1.6
Alopecia areata	36	1.4
Rosacea	13	0.5
Appendigeal tumor	10	0.4
Hersuitism	9	0.3
Hydradenitis suppurativa	7	0.3
Sebaceous cyst	7	0.3
Syringomas	3	0.1
Ingrowing toe nail	2	0.1
Androgenetic alopecia	2	0.1
Total	351	13.3%

Table-5: Disorders of pigmentation

Diseases	Number of patients (n)	Frequencies (%)
Melasma	156	5.9
Post-inflammatory hyperpigmentation	49	1.9
Freckles	33	1.3
Vitiligo	11	0.4
Lentigenosis	11	0.4
dark eye circle	3	0.1
Total	263	10%

Table-6: Connective tissue/vascular and hypersensitivity reactions

Diseases	Number of patients (n)	Frequencies (%)
Chill blains	60	2.3
Urticaria	56	2.1
Insect bite reactions	30	1.1
Connective tissue disorders	13	0.4
Keloid	9	0.3
Fixed drug eruptions	8	0.3
Erythema multiforme	6	0.2
Erythema nodosum	6	0.2
Vasculitis	5	0.2
Idd eruption	5	0.2
Henoch schonlien purpura	3	0.1
Total	201	7.4%

Table-7: Keratinization disorders

Diseases	Number of patients (n)	Frequencies (%)
Psoriasis	49	1.8
Lichen planus	20	0.7
Pytriasis rosea	15	0.5
Ichthyosis	13	0.5
Keratoderma	13	0.5
Keratosis pilaris	11	0.4
Milias	6	0.2
Callosity	2	0.1
Ectodermal dysplasia	2	0.1
Total	131	4.8%

Table-8: Nevoid disorders, genodermatosis and miscellaneous skin disorders

Diseases	Number of patients (n)	Frequencies (%)
Congenital nevus	9	0.3
Hemangiomas	8	0.3
Mongolian blue spot	6	0.2
Nevus of oata	3	0.1
Salmon patch	2	0.1
Miscellaneous		
Burn	23	0.8
Aphthosis	7	0.3
Chronic bullous disorder of childhood	7	0.3
Angular cheilitis	5	0.2
Xanthasma	2	0.1
Xanthoma	2	0.1
Total	108	4.1%

DISCUSSION

The pattern of skin diseases in any community is determined by its climatic, cultural and socioeconomic factors.¹⁻⁵ Accordingly different studies report different pattern of skin diseases in different countries.⁷ The results of our study showed that infections of the skin and subcutaneous tissue were most commonly diagnosed. Among infections, the most common was scabies 14.8% (n=392) followed by viral warts 2% (n=52), and Tinea pedis 1.8% (n=48). This pattern is similar to many studies emanating from Lahore⁷, Karachi⁸ and different parts of India^{4,9-11}. On the contrary, a study from Kumaran region of Uttarakhand found that 58.7% of patients were having non-infective skin diseases while only 27.1% patients were suffering from infective skin diseases.⁵ In our study, incidence of scabies was 14.8% which is very high as compared to the studies from Imphal³ where it was 8.9%, and from Garhwal¹² reporting 9.4% of scabies cases.

In the present study, the incidence of fungal infections was 10.4%, which is comparable to another study from urban institute in Kolkatta¹³. Tinea dermatophytosis was the most common fungal infection followed by Tinea versicolor in present study and in a study from Guwahati¹⁴.

In our study, viral warts were the most common viral infection, (2%), followed by chickenpox (1.7%), and Herpes zoster (0.7%). Amongst bacterial infections, folliculitis and furunculosis were the most common with (1.6% each), followed by impetigo (1.1%). Other studies reported these infections with slight different frequencies. Bacterial infections were reported to be the predominant infections by Balai *et al*⁴ and Karthikeyan *et al*¹¹. In contrast, Yasmin and Khan⁸ reported fungal infections to be more frequent. Yamama *et al*¹⁵ reported parasitic diseases, i.e., pediculosis capitis to be the major dermatosis, whereas in the study by Wenk and Itin¹⁶ viral infections outnumbered other infections. The high incidence of infections in our study is may be due to overcrowding and low socioeconomic status of our patients and more so as the studied population belong to hilly areas.

In present study, eczema was the second most common diagnosis, amongst which, Seborrhic dermatitis was the most common (6.2%), followed by contact dermatitis (4.8%) and atopic dermatitis (3.3%). On the contrary, it was the top diagnosis comprising 23.1% and 19.9% of cases in a studies conducted at Guwahati¹⁴ and Uttarkhand⁵. However psoriasis is most common among papulosquamous disorders^{5,17} as in our study. The percentage of acne patients (8.3%) is higher as compared to the study conducted in Kerala¹⁸ where it contributed 4.1% of cases. The high incidence of melasma (5.9%) and chill blains (2.3%) is likely to be the result of high UV index and extreme weather conditions in this region. The above non-infectious disorders are commonly influenced by genetic predisposition, endogamy, seasonal and environmental factors.

CONCLUSION

The communicable skin diseases (infections and infestations) are the most prevalent skin disorders, and are preventable. Appropriate range of health services and training of health staff as well as public education and awareness is required to control these diseases.

REFERENCES

- Kar C, Das S, Roy A. Pattern of skin diseases in a tertiary institution in Kolkata. *Indian J Dermatol* 2014;59(2):209.
- Patro BK, Tripathy JP, Sinha S, Singh A, De D, Kanwar A. Diagnostic agreement between a primary care physician and a teledermatologist for common dermatological conditions in North India. *Indian Dermatol Online J* 2015;6(1):21-6.
- Devi TB, Zamzachin G. Pattern of skin diseases in Imphal. *Indian J Dermatol* 2006;51(2):149-50.
- Balai M, Khare AK, Gupta LK, Mittal A, Kuldeep CM. Pattern of pediatric dermatoses in a tertiary care centre of South West Rajasthan. *Indian J Dermatol* 2012;57(4):275.
- Agarwal S, Sharma P, Gupta S, Ojha A. Pattern of skin diseases in Kumaun region of Uttarakhand. *Indian J Dermatol Venereol Leprol* 2011;77(5):603-4.
- Gupta A, Chellaiyan V, Lohiya A, Rizwan SA, Upadhyay RP, Palanivel C. Morbidity profile of out-patients attending a primary health centre in rural Puducherry, South India. *Nat J Community Med* 2014;5(4):424-7.
- Muzaffar F. Pattern of skin diseases at The Children's Hospital, Lahore: comparison between 1996-1998 and 2011. *J Pak Assoc Dermatologists* 2012;22(3):230-5.
- Yasmeen N, Khan MR. Spectrum of common childhood skin diseases: a single centre experience. *J Pak Med Assoc* 2005;55:60-3.
- Sardana K, Mahajan S, Sarkar R, Mendiratta V, Bhushan P, Koranne RV, *et al*. The spectrum of skin disease among Indian children. *Pediatr Dermatol* 2009;26(1):6-13.
- Gupta V. Pattern of skin diseases in rural India: a hospital-based study. *Int J Sci Study* 2015;3(1):44-7.
- Karthikeyan K, Thappa DM, Jeevankumar B. Pattern of pediatric dermatoses in a referral center in South India. *Indian Pediatr* 2004;41:373-7.
- Dimri D, Reddy BV, Kumar A. Profile of skin disorders in unreached hilly areas of North India. *Dermatol Res Pract* 2016;2016:8608534. doi: 10.1155/2016/8608534
- Das A, Halder S, Das J, Mazumdar G, Biswas S, Sarkar JN. Dermatologic disease pattern in an urban institution in Kolkata. *Indian J Dermatol* 2005;50:22-4.

14. Das KK. Pattern of dermatological diseases in Gauhati Medical College and Hospital Guwahati. *Indian J Dermatol Venereol Leprol* 2003;69(1):16–8.
 15. Yamamah GA, Emam HM, Abdelhamid MF, Elsaie ML, Shehata H, Farid T, *et al.* Epidemiologic study of dermatologic disorders among children in South Sinai, Egypt. *Int J Dermatol* 2012;51(10):1180–5. doi:10.1111/j.1365-4632.2012.05475.x.
 16. Wenk C, Itin PH. Epidemiology of pediatric dermatology and allergology in the region of Aargau, Switzerland. *Pediatr Dermatol* 2003;20:482–7.
 17. Jha SM, Rajbhandari SL, Shakya N, Pokharel A, Jha B. Pattern of dermatological diseases in the patients of Army Hospital, Kathmandu. *Med J Shree Birendra Hosp* 2010;9(1):14–6.
 18. Asokan N, Prathap P, Ajithkumar K, Ambooken B, Binesh V, George S. Pattern of skin diseases among patients attending a tertiary care teaching hospital in Kerala. *Indian J Dermatol Venereol Leprol* 2009;75(5):517–8.
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