

Original article:

SOCIODEMOGRAPHIC PROFILE AND PATTERN OF SUPERFICIAL DERMATOPHYTIC INFECTIONS IN A TERTIARY CARE CENTRE OF NORTH WEST RAJASTHAN

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Abstract

Background- The present study was carried out to evaluate the prevalence rate of Dermatophytic infection.

Material and methods-A descriptive type of observational study was conducted on 400 clinically suspected untreated case of dermatophytoses, coming to the outpatient department of Dermatology, Venereology and Leprosy.

Results- 57.75% belonged to 16-30 Yrs age group. 67.25% patients were male and 32.75% patients were female. 57.75% belonged to middle class followed by 42.75% patients belonging to lower class.

Conclusion - This study highlighted that, mixed type (more than 1 entity of clinicomorphological variants of dermatophyte infection) is the commonest clinical type.

Keywords-Dermatophytosis, Dermatophytes, Cutaneous

INTRODUCTION

Skin infections are common disease in developing countries, skin infections due to dermatophytes has become a significant health problem affecting children, adolescents and adults. Therefore, dermatophytosis are of particular concern in the tropics. A fungal infection usually results from the presence of some types of keratinophilic fungi on the skin. These fungi grow frequently on those areas of the skin that are warm, dark and moist. _Dermatophytes are a specialised group of fungi, causing cutaneous infections of human and other vertebrates that are among the most prevalent cutaneous infections globally. These infections are commonly known as ring worm infections which are caused by species of genera Trichophyton, Epidermophyton and Microsporum.

The climatic conditions of our country are favourable for maintenance of dermatophyte infections situated within the tropical and subtropical belts of the world. India has a remarkably varied topography which favours fungal growth. Cases of superficial mycoses in the country were first reported from upper Assam by Dr. Powell in 1900. Since then, the prevalence of dermatophytes has been reported from different states of the country.¹ Although, the infections are not life-threatening, these cause physical discomfort to the affected persons and challenge the quality of life. An increasing frequency of dermatophytoses has been observed during last two decades especially in immunocompromised patients such as AIDS, diabetes mellitus, malignancy and organ transplantation patients, etc. Dermatophytes are also associated with secondary bacterial infections leading to systemic skin infections.²

Infections pertaining to mankind particularly those affecting the keratinized tissues are of serious concern worldwide and are increasing on a global scale. Dermatophytes are infections of the skin, hair and nail caused as a result of colonization of the keratinized layers of the body. This colonization is brought about by the organisms belonging to the three genera namely *Trichophyton*, *Microsporum* and *Epidermophyton*.³ Interestingly dermatophytic infections are predominant in the tropical and subtropical countries; especially in the developing countries like India where the hot climate and humid weather is favourable to the acquisition and maintenance of the disease⁴ and currently no race is totally free from dermatophytoses.

MATERIALS AND METHOD

Study design: A descriptive type of observational study was conducted on the 400 clinically suspected untreated cases of dermatophytoses, coming to the outpatient department of Dermatology , Venereology and Leprosy, Sardar Patel Medical College, PBM & Associated Group of Hospitals, Bikaner, Rajasthan for a period of one year between July 2019 to June 2020. Prior to carrying out the study, ethical approval was obtained from the Institute Ethics, Research Board, Bikaner. Skin scales, crusts, hair and nails (nail clipping and nail scraping) were sampled.

OBSERVATIONS

In our study, maximum patients (57.75%) belonged to 16-30 Yrs age group, followed by 26.00% patients belonged to 31-45 Yrs age group, 7.50% patients belonged to 0-15 Yrs age group, 6.75% patients belonged to 46-60 Yrs age group and 2.00% patients belonged to more than 60 Yrs age group. Maximum (67.25%) patients were male and 32.75% patients were female. Maximum patients (57.75%) belonged to middle class followed by 42.75% patients belonged to lower class. Maximum patients (39.50%) were doing private job, followed by 27.75% patients were students, 21.00% patients were house wife, 6.25% patients were doing government job and 5.50% patients were doing agriculture.

Table 1. Clinical type wise distribution of patients

Clinical type	No of patients	Percentage
Mixed type	116	29.00
T.barbae	4	1.00
T.capitis	2	0.5
T.corporis	107	26.75
T.cruris	58	14.5
T.manuum	26	6.5
T.pedis	16	4.00
T.faciei	43	10.75
Onychomycosis	28	7.00
Total	400	100.00

Mixed type- more than 1 entity of clinicomorphological variants of dermatophyte infection.

In our study, maximum (29.00%) patients presented with more than 1 entity of clinico morphological variants of dermatophyte infection, followed by 26.75% patients presentd with T.corporis, 14.5% patients presented with T.cruris, 10.75% patients presented with T. faciei, 7.00% patients presented with Onychomycosis and 6.50% patients presented with T. manuum.

DISCUSSION

A study of dermatophytoses in a population is important as it may reflect the climatic condition, customs, hygienic and socio-economic status of people. As India is a growing economic country and during last couple of decades people have started interstate migration in search of better jobs, and foreign tourists are also visiting India more often than ever; therefore, change in spectrum of clinical and mycological pattern is always expected and uncommon fungal isolates can be encountered in clinical practice, and it would be prudent for dermatologists as well as mycologists to be alert and well equipped to diagnose such cases.

Among the various fungal infections of human beings dematophytes are the most common infection of the world.⁵ Studies on dematophytoses in India have received increased attention in recent years because 1/5th of the world's population suffers from mycosis.⁶

CONCLUSION

This study highlighted that, mixed type (more than 1 entity of clinicomorphological variants of dermatophyte infection) is the commonest clinical type.

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