

# Prevalence of Fungal Infections in a Tertiary Care Hospital

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**Abstract:** *The aim is to study the prevalence of fungal infections in Sree Mookambika Institute of Medical Sciences. A total of 195 samples were received for this study.*

**Keywords:** Opportunistic Fungal Infections, Dermatophytosis, Prevalence

## 1. Introduction

The common cause of Skin infections are Dermatophytes and Opportunistic fungal infections. In recent years, fungi have been flourishing in immunocompromised patients of tertiary care hospital. The data on the burden of opportunistic mycoses is not clear, though climate in India is well suited for a variety of fungal infections. Thus there is need of good diagnostic Mycology laboratories, Rapid diagnosis and antifungal strategies.

Dermatophytes are group of fungi that infect keratinized tissues of human and animals. The group consist of three different genera namely, Trichophyton, Microsporum, Epidermophyton and several species within each genera. Among Trichophyton, Trichophyton rubrum is predominant, followed by various strains of Trichophyton mentagrophytes, which include both anthropophiles and zoophiles.

The epidemiology of dermatophyte infection is likely to alter with changing patterns of migration, growth in tourism, and changes in socioeconomic conditions.

Apart from the environmental condition, poor personal hygiene along with poor illiteracy plays a major role in influencing the higher incidence of dermatophytosis.<sup>4</sup>

Although the infection is not invasive and easy to cure, its widespread nature and cost of the treatment is a major public health problem and causes colossal damage to the economic status of the tropical countries like India.<sup>5</sup>

## Aims and Objectives

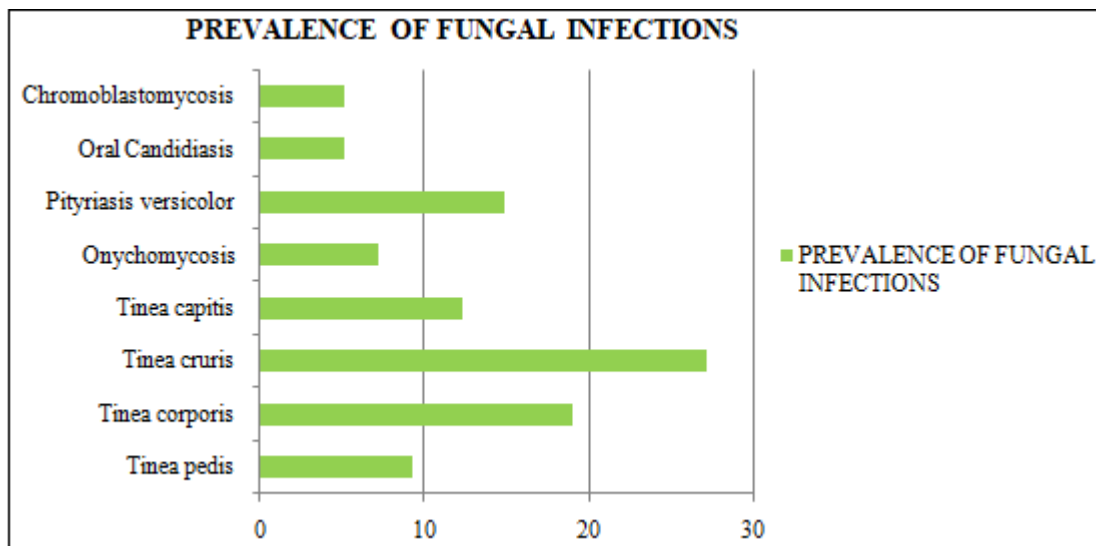
The aim is to study the prevalence of fungal infections in Sree Mookambika Institute of Medical Sciences.

## 2. Materials and Methods

A total of 195 samples of infected skin, hair and nail samples were collected from patients for a period of 6 months (Jan 2022 to June 2022). Before collecting the samples 70% Alcohol was applied to infected area and ensured that it was totally dry. Skin samples were collected by scraping, Nail samples by clipping and hair samples by Sterile scapels. Identification of Causative pathogens were done by Performing Slide culture, Lactophenol - cotton blue mount, 10% KOH mount, 40% KOH Mount (Nail Samples) and SDA culture

## 3. Results

Of 195 Samples studied, Majority of the infections were Tinea cruris 27.18% (53), Tinea corporis 19% (37), Pityriasis versicolor 14.87% (29), Tinea capitis 12.3% (24), Tinea pedis 9.23% (18), Onychomycosis 7.18% (14), Oral Candidiasis 5.12% (10), Chromoblastomycosis 5.12% (10).



#### 4. Discussion

The epidemiology of superficial fungal infections has changed significantly in the last century and reflects changes in socioeconomic conditions, lifestyles and migration. Dermatophyte infections are very common in our country where hot and humid climate along with the poor hygienic conditions favor the growth of these fungi. The most common clinical type of Dermatophyte was tinea corporis followed by tinea cruris.

#### 5. Conclusion

Alarming rates of fungal infections among clinical isolates is a serious issue. Prompt and accurate diagnosis of organisms are extremely needed which will help in the management of patients. As drug susceptibility of each fungal organisms vary, its our sole responsibility to diagnose the organisms and manage it accordingly.

Regular health education about fungal infections that highlights their morbidities and modes of spread, should be given to the public, in order to truly reduce the prevalence and burden of superficial fungal infections.

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