

CHAPTER 8

ROLE OF FUNGI IN OTHER DERMATOLOGICAL DISORDERS

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INTRODUCTION

Fungal infections are the most common infection in the world with an incidence of up to 25%. Although the most common fungal infection type is the superficial type where the stratum corneum of the skin, hair and nail are involved, deep forms are also encountered (1). The main fungus species causing superficial skin infections are the *Microsporum*, *Epidermophyton* and *Trichophyton* species, also known as dermatophyte fungi. Another important agent is *Candida*, which is largely an opportunistic organism. Deep fungal infections are mainly seen in immunocompromised persons and may develop due to various agents as seen in paracoccidioidomycosis, coccidioidomycosis, histoplasmosis, mucormycosis, and cryptococcosis (1,2). The skin may also be involved in several systemic mycoses (3).

Fungal infections are also thought to play a role in the etiopathogenesis of many skin disorders such as seborrheic dermatitis (SD), atopic dermatitis (AD), folliculitis, psoriasis, and rarely confluent and reticulate papillomatosis (CRP), neonatal acne and transient acantholytic dermatosis (TAD) (4-7). In general, the fungus type that most commonly plays a role in the etiopathogenesis of these disorders is *Malassezia* species. *Malassezia* spp., previously known as *Pityrosporum*, are commensal yeast-like fungi that can live on all skin surfaces in humans and animals. However, they may show a pathogenic character in predisposed individuals and cause chronic recurrent diseases (4-8). A wide spectrum of infections from benign skin disorders such as pityriasis versicolor (PV) to the fungemia seen in immunocompromised patients can be encountered. The organism has been shown in the squamous sections of skin lesions caused by PV in the mid-19th century. The organism called *Microsporon furfur* at that time, and

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8.7. Transient Acantholytic Dermatitis (TAD)

A relationship between TAD and *Malassezia* species has been considered as some cases have responded to selenium sulfide treatment (70). However, the scientific evidence is not adequate.

8.8. Conclusion

Malassezia has been associated with many dermatologic disorders as a fungal factor. It has been found mostly in patients suffering from SD and also AD with head and neck involvement and these patients have been shown to benefit from systemic antifungal treatment. However, the role of *Malassezia* on such disorders is not clear since it is also a commensal agent in normal healthy individuals. The diagnostic value of identifying *Malassezia* yeasts in dermatologic disorders has not been determined. It is believed that geographic-climatic factors, ethnic origin, personal susceptibility and the lifestyle are important factors in *Malassezia* colonization, and have a triggering role in the pathogenesis of many dermatologic disorders.

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