

Prevalence of cultivated dermatophytes and yeasts in Latvia

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INTRODUCTION

Fungal infections usually affect skin, hair, nails or mucous membranes but they can also infect lungs or other parts of body. There are two major causes of fungal infections of the skin and nails: dermatophytes and yeasts (*Candida spp.*). Dermatophytes consist of three genera *Trichophyton*, *Microsporum*, and *Epidermophyton*. *Candida spp.* causes skin and mucous membrane infections called candidiasis.

AIMS AND OBJECTIVES:

The aim of study was to analyze the most common dermatophytes in 2023 in Latvia.

MATERIAL AND METHODS:

2584 clinical samples were obtained from nails (n=1484), skin (n=871) and hair (n=229) in 2023. Traditional inoculation methods are fungal culture. The fungal species can be identified by observing the distinct morphological colonies on the culture media, examining the characteristics of conidia under a light microscope and culture identification by MALDI-ToF.

RESULTS:

We obtained 2054/2584 (82,6%) negative dermatophyte results and 450/2584 (17,4%) positive dermatophyte, 184/2584 (7,1%) positive *Candida spp.* Isolated on culture *Trichophyton* 429/450 (95,3%): *T.rubrum* 369/450 (82,0%), *T. mentagrophyte* 29/450 (6,4%), *T.tonsurans* 20/450 (4,4%), *T.violaceum* 1/450 (0,2%), *T.schoebinii* 1/450 (0,2%), *T.interdigitale* 1/450 (0,2%), *Trichophyton spp.* 9/450 (2,0%); *Mirosporum* 20/450 (4,4%): *M.canis* 17/450 (3,8%), *M.gypseum* 1/450 (0,2%), *M.persicolor* 1/450 (0,2%), *Mirosporum spp.* 1/450 (0,2%); *Epidermophyton floccosum* 1/450 (0,2%).

Candida 184/2584 (7,1%): *C.parapsilosis* 78/184 (42,4%), *C.albicans* 40/184 (21,7%), *C.guilliermondii* 18/184 (9,8%), *C.lipolytica* 17/184(9,2%), *C.orthopsilosis* 4/184 (2,2%), *C.zeylanoides* 4/184 (2,2%), *C.glabrata* 3/184 (1,6%), *C.famata* 3/184 (1,6%), *C.dubliniensis* 2/184(1,1%), *C.tropicalis* 2/184(1,1%), *C.lusitaniae* 1/184 (0,5%), *C.catenulata* 1/184 (0,5%), *C.pelliculosa* 1/184 (0,5%), *C.krusei* 1/184 (0,5%), *Candida spp.* 9/184 (4,9 %).

CONCLUSIONS:

In Latvia most common dermatophytes were *T.rubrum* (82%), *T. mentagrophyte* (6,4%), *T.tonsurans* (4,4%) and *M.canis* (3,8%). *T. rubrum* had emerged as the predominant global agent, with a prevalence of over 40–70% in Central and North European countries, followed by *T. mentagrophytes*. In 2023 year most common yeasts were *C.parapsilosis* (42,4%) and *C.albicans* (21,7%).

