INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

ANTIFUNGAL SUSCEPTIBILITY OF THE MALASSEZIA SPECIES TO ITRACONAZOLE, FLUCONAZOLE, AND TERBINAFINE

Ms Hur [(1)] - Jy Hong [(1)] - Jh Kim [(1)] - Jr Hong [(1)] - Hi Cheon [(1)] - Yw Lee [(1)] - Yb Choe [(1)] - Kj Ahn [(1)]

Konkuk University School Of Medicine, Department Of Dermatology, Seoul, Republic Of Korea [(1)]

Introduction: Malassezia are lipid dependent basidiomycetous yeasts that inhabit the skin and mucosa of humans, and are a major component of the skin microbiome. The Malassezia yeasts have also been implicated in several dermatological disorders, including pityriasis versicolor, seborrheic dermatitis, psoriasis, and systemic infections.

Objective: This study aims to evaluate the in vitro antifungal susceptibility of Malassezia species, and reveal minimum inhibitory concentration of drugs for each Malassezia strains.

Materials and Methods: 6 of Malassezia species were used to investigate susceptibility of antifungal agents, itraconazole, fluconazole, and terbinafine. The strains were grown in Leeming and Notman medium for 2 days at 34˚C, and MIC (minimum inhibitory concentration) was determined by agar dilution method.

Results: Malassezia species were most sensitive to itraconazole, with MICs ranging from 0.015 to 0.06 μg/mL, which are the narrowest range. MIC values of fluconazole and terbinafine against Malassezia species were higher and wider range than MIC of itraconazole.

Conclusions: To treat Malassezia associated skin diseases, itraconazole would be chosen first, in Korean patients. Isolation of pathologic species of Malassezia from various skin diseases in Korea would be fundamental research for the target therapy, and drug susceptibility test would be helpful for proper treatment.