Identification of Malassezia Species Isolated from Patients with Seborrheic Dermatitis Using PCR-RFLP Method in Arak, Iran

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Abstract

Background and Objective: Malassezia that is a part of normal flora is lipophilic yeast involved in a variety of skin diseases such as seborrheic dermatitis, pityriasis versicolor, atopic dermatitis and psoriasis. Seborrheic dermatitis affects most often the sebaceous-gland-rich areas of skin such as face, scalp, and parts of the upper trunk. Dandruff is a mild variant of seborrheic dermatitis characterized by scaling. In this study, Malassezia species causing dandruff were identified.

Material and Methods: In this descriptive study, the samples (n=60) from participants with dandruff were examined under a microscope using 10% KOH solution and cultured in Leeming and Notman agar medium. DNA Extraction was performed from colonies by glass bead and the Malassezia genus, and species were detected by CfoI enzyme using PCR-RFLP method.

Results: Of 60, 40 (66.6%) were positive for Malassezia yeast. The positive samples in direct examination grew in culture medium. Malassezia species isolated were Malassezia globosa (25 cases), Malassezia restricta (10 cases), Malassezia furfur (3 cases) and Malassezia sympodialis (2 cases).

Conclusions: In most studies, the Malassezia species were identified as the agents causing seborrheic dermatitis. In our study, Malassezia globosa was isolated as a dominant species.

Keywords: Seborrheic Dermatitis, Malassezia SPP, Arak