Comparison of the antifungal effect of licorice Root, Althoca officinalis Extracts and Ketoconazole on Malassezia Furfur

MOTAHRINIA Y., REZAEE M.A., ZANDI F., HOSSEINI W., RASHIDI A., AHMADI NEAZ M., AMINIPOUR E. and RAHMANI M.R.

Abstract:

Malassezia furfur is a lipophilic yeast and is known as the agent of skin diseases, especially tinea versicolor. The aim of this study was to compare the antifungal effect of licorice root, Althoca officinalis extracts and ketoconazole on Malassezia furfur.

Methods: In this study, the antifungal effect of ethanolic extracts of Althoca officinalis root and licorice and ketoconazole on Malassezia furfur was evaluated by broth dilution method. The minimum inhibitory concentration (MIC) and minimum concentration of fatality (MFC) for each of the compounds was calculated according to visual reading and the number of fungal colonies (CFU) compared with the control group. The gathered data were analyzed using Mann-Whitney test.

Results: MIC range of Althoca officinalis flower, Althoca officinalis root, licorice root extracts and ketoconazole was determined as: 18.25, 300, 500 and 2.65 μg/ml. MFC range for extracts of Althoca officinalis flower and ketoconazole was determined as: 50 ≤ and 3≤ μg/ml.

Conclusion: The present study showed that Althoca officinalis flower extract compared with the Althoca officinalis root and licorice root extracts have a higher antifungal effect. Also ketoconazole, compared with these extracts, have a high antifungal effect on Malassezia furfur.