

Investigating antifungal effect of 5 total Iranian indigenous plant extracts

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Background and Aims: From ancient times to the beginning of the 16th century, the use of plants as medicines and disinfectants to prevent and cure diseases has been regarded as the most reliable method by the traditional medicine specialists. Given the high prevalence of fungal infections and their long-term treatment, and considering the relative toxicity of medicines, the use of plants having antifungal effect has been studied in different countries of the world including Iran. The purpose of conducting the present research is to study and use antifungal properties of 5 total Iranian indigenous plant extracts to be used in the relevant industries.

Methods: The materials used in this study are 5 plants of thyme, myrtle, black Galilee, chamomile, and *Melissa officinalis*, which have been powdered separately, then 12.5gr. of each sample has been separately extracted up by putting it into 125ml. of water, ethanol, and petroleum ether solvents. The basis of research method is well plate testing; initially few drops of prepared yeast suspension was put on a Sabouraud dextrose agar medium by a sterile Pasteur pipette, then using a sterile loop it has been completely scattered and leveled, then using a biopsy punch, sinks with the depth of 2.5ml were made to the extent that they did not reach the plate floor. Therefore, the penetration of the mentioned material has caused the inhibition of microorganisms' growth and the inhibition zone is considered as a criterion for antifungal power of the studied antifungal substance.

Results and Conclusions: The obtained results have shown the highest antifungal effect respectively on the extracts of thyme, myrtle, chamomile, *Melissa officinalis* and black Galilee.

Keywords: Total extract; Antifungal effect; Thyme; Myrtle