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Preliminary Investigation on Antimycotic Synergism of Raw Honey and Essential Oil of Thyme (Thymus vulgaris L.)

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Abstract

Aims: Several natural products have exhibited synergistic activity against microorganisms. In this study we investigated the existence of synergistic antifungal effect between Thyme (*Thymus vulgaris* L.) essential oil and different varieties of raw honey from Algeria.

Methodology: To evaluate antimycotic effects of mixtures of raw honey (RH) and *Thymus vulgaris* oil (TVO) using agar disc diffusion assay. The antimycotic capacity was determined against two pathogenic yeasts clinical isolates *Candida albicans* and *Rhodotorula mucilaginosa*.

Results: The results indicated that the essential oil of TVO and raw honey are efficient against the tested yeasts. The diameters of inhibition Zone (DIZ) values were all between 8.26-9.5 mm for the RH and between 8.56-10.3 mm for the TVO. RH and TVO interacted synergistically to inhibit *Candida albicans* and *Rhodotorula mucilaginosa*.

Conclusion: These results revealed that combinations of TVO with RH can be used for the development of potent and novel antifungal agents.

Keywords: Synergism; Antimycotic activity; Honey; *T. vulgaris*