

IN VITRO SUSCEPTIBILITY OF *Thymus vulgaris* EXTRACT AS ANTIFUNGAL AGENT AGAINST *Aspergillus fumigatus*

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ABSTRACT

This research was done to investigate the antifungal activity of *Thymus vulgaris* and its effective concentration, and to compare the antifungal activity among *Thymus vulgaris*, Amphotericin B, and Potassium Iodide. *Thymus vulgaris* is a herb that its phytochemistry is employed for therapeutic properties. *Thymus vulgaris* was dried and made a viscous extract dissolved in DMSO 100%. The in vitro susceptibility of *Aspergillus fumigatus* to *Thymus vulgaris*, Amphotericin B, and Potassium Iodide were determined by a disk diffusion technique. There were 13 treatments and 3 replicates. The experimental design was completely randomized design. The data was analyzed using the analysis of variance statistic method. If there were differences among treatments, the Tukey test was used. The result indicated the significant difference ($p < 0.05$) in inhibition zone diameters (IZDs) of *Thymus vulgaris* extract 30-100% in concentration to potassium iodide, and no significant difference ($p > 0.05$) between *Thymus vulgaris* extract and Amphotericin B. It could be concluded that *Thymus vulgaris* extract has antifungal activity against *Aspergillus fumigatus*.

Key words : *Thymus vulgaris*, *Aspergillus fumigatus*, Antifungal, Susceptibility, Disk Diffusion