



EFFECT OF METHANOLIC LEAVES EXTRACTION OF *Andrographis paniculata* ON FUNGUS ISOLATED FROM GENERAL RESEARCH LABORATORY, MEDICAL LABORATORY CENTRE, FACULTY OF HEALTH SCIENCES, UITM PUNCAK ALAM

By

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DECLARATION

“I hereby declare that this thesis is based on my original work and has not has been submitted previously or currently for any other degree at UiTM or any other institutions.”

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ABSTRACT

Effect of Methanolic Leaves Extraction of *Andrographis paniculata* on Fungus Isolated From General research Laboratory, Medical Laboratory Centre, Faculty of Health Sciences, UITM Puncak Alam

Andrographis paniculata or ‘Hempedu Bumi’ is one of the herbal plants from the family Acanthaceae. The major phytochemical compound present in the leaves is Andrographolide which act as an antifungal agent. Mold or fungal growth can be seen at General Research Laboratory at Faculty of Health Sciences UiTM Puncak Alam despite the treatment with chemicals. So, the aim of this study is to identify the isolated fungal and its effect with *Andrographis paniculata* leaves extraction. The isolated fungus was collected with sterile swab and culture on the SDA medium and air sampling method. The isolated fungus was identified by macroscopic method and observed based on the colony morphology. Microscopic method was also performed with slide culture method and use of Lactophenol Cotton Blue stain. The antifungal activity assay used of disk diffusion method with differences concentration of *A. paniculata* extract which were 1000, 500, 250, 125, 62.5, 31.25 mg/mL respectively. The final identification of isolated fungal is *Cladosporium* spp. was based on the macroscopic and microscopic identification and reference against published literature. The antifungal activity assay with disc diffusion method showed no inhibition zones for all difference concentrations of *Andrographis paniculata* extract that was tested. The positive control, Voriconazole (1 μ g) also showed no inhibition zone. The conclusion for this study is that the *Andrographis paniculata* leaves extract used in this study is not suitable for the antifungal assay due to prolonged storage. Further study can be done using of fresh extract and other test such as minimal inhibitory concentration and minimal fungicidal concentration for more accurate results.

KEYWORDS:

Andrographis paniculata, Antifungal activity, Environmental fungal, Identification of fungal