

ABSTRACT

Garlic (*Allium sativum*) was being a drug used since long time ago by Hippocrates, Pliny, and Aristotle for therapy. Garlic could be used as antiviral, antimicrobial, antifungal, and antioxidant treatment. Beside that, garlic could be used as anti-atherosclerotic and anti-cancer agent (Bongiorno, 2008). On the other side, nystatin was a very efficient antibiotic for mycosis treatment. Nowadays, nystatin was used as a drug for infection caused by fungi from genus *Candida*. The main cause of the infection was the decreased immune system because of systemic disease. Other causes were nosocomial infection transmitted through health workers or contaminated medical devices. There was no studies have discussed about comparison of antifungal activity between garlic and other drugs. So, it was needed to do some studies to determine on that matter. The purpose of this study was to compare effectiveness between ethanol extract of garlic (*Allium sativum*) and nystatin as antifungal drugs that can inhibit the growth of *Candida albicans*.

Method's used in this study was disk-diffusion test with six treatment. The selected concentration of the extract was 4g/ml (100%), 3g/ml (75%), 2g/ml (50%), and 1g/ml (25%). This study needed five times replication. The results were obtained from measurement of inhibitory zone diameter formed around the growth media of *Candida albicans* which was incubated at temperature of 37°C about 24 hours, in millimeter unit. Then, the data would be compared with the inhibitory zone diameter resulted by nystatin to determine effectiveness of both.

From this experiment, the inhibitory zone diameter of nystatin was much higher than ethanol extract of garlic (*Allium sativum*). It was needed to do evaluation in many aspects, like from the plant, fungi, drug, the method of extraction and experiment for resulting more accurate data.

Keywords: *Allium sativum*- nystatin- *Candida albicans*- candidiasis- antifungal-disk diffusion test