

**THE DIFFERENCES OF ANTIFUNGAL EFFECTIVENESS BETWEEN
ETHANOL EXTRACT AND HOT-WATER EXTRACT OF AVOCADO
SEED (*Persea americana* Mill.) ON *Candida albicans*
(IN VITRO)**

ABSTRACT

Background. Oral candidiasis is an opportunistic infection in oral cavity due to excessive growth of *Candida* species, especially *Candida albicans*. The most commonly used antifungal drugs belong to the groups of polyenes or azoles that have side effects. Herbal medicine has side effects and toxicity lower than chemical drugs. Avocado is a plant that well-growth in tropical regions such as Indonesia. It has chemical composition in their seeds that can serve as antifungal. Ethanol extract and hot-water extract is kind of herbal medicine. **Purpose.** To examine the differences of antifungal effectiveness between ethanol extract and hot-water extract of avocado seed (*Persea americana* Mill.) on *Candida albicans* (in Vitro) **Method.** Both of each extract was poured in eight tube with different concentration, 100 %, 50%, 25%, 12,5%, 6,25%, 3,125%, 1,5625% and 0,78125%, and two other tube used for positive and negative control. Tube number 1-8 was poured *Candida albicans* suspension. Positive control tube filled with saboraaud broth and *Candida albicans* suspension, and the negative one filled with saboraaud broth. Then incubated for each tube and streaking at SDA (saboraud dextrose agar) to determine the value of Minimum Inhibitory Concentration (MIC) and Minimum Fungicidal Concentration (MFC) by colony counting. The result of colony counting was analyzed using independent samples *t*-test **Results.** The colony amount of hot-water extract under 12.5% is more than 300 thus the colony counting is unable to be done. The result of independent samples *t*-test showed that H_0 is accepted (sig 2-tailed <0.05) in concentration 12.5% to 50%. MIC of ethanol extract achieve in 50% and MFC of ethanol extract achieve in 100%. MIC and MFC was not found in hot-water extract **Conclusion.** So there is the differences of antifungal effectiveness between ethanol extract and hot-water extract of avocado seed (*Persea americana* Mill.) on *Candida albicans* (in vitro).

Key words: ethanol extract, hot-water extract, avocado seed, *Candida albicans*