EFKSTIVITAS ANTIFUNGI EKSTRAK BJI AVOKAD (Persea americana Mill.)

Terhadap Pertumbuhan Candida albicans Secara In Vitro

(The Antifungal Effectiveness of Avocado Seed Extract (Persea americana Mill.) on The Growth of Candida albicans In Vitro)

ABSTRACT

Background. Oral candidiasis is an opportunistic infections that accompany other medical conditions such as immunocompromised patients. Candida albicans (C. albicans) is a commensal microorganism that can turn into a pathogen, accompanied by the presence of predisposing factors in addition to virulence factors of the microorganism itself. Phytochemicals in avocado seed contains polyphenols, flavonoids, tannins, saponins, and alkaloids, that have an antifungal activity. Purpose. To find out the effectiveness of avocado seed extract as an antifungal on C. albicans growth. Method. Serial dilution, by diluting 100% avocado seed extract to a concentration of 50%, 25%, 12.5%, 6.25%, 3.125%, 1.56%, and 0.78%, with Sabouraud broth medium, accompanied with the negative and positive control groups, then added with C. albicans suspension and incubated for each group. After that, it is planted on Sabouraud Dextrose Agar (SDA) medium, to estimate the value of Minimum Inhibitory Concentration (MIC) and Minimum Fungicidal Concentration (MFC). Then do the replanting done on SDA medium for colony counting. Results. MIC of avocado seed extract is 50%, and the MFC of avocado seed extract to kill the C. albicans is 100%. Conclusion. Avocado seed extract is effective as an antifungal on the growth of C. albicans.

Key words: Avocado seed extract, polyphenols, flavonoids, tannins, saponins, alkaloids, Candida albicans, antifungal