Inhibition of 10% Alpinia galanga and Alpinia purpurata rhizome extract on Candida albicans growth

Abstrak:

Background: One of normal oral flora that found in human oral cavity is Candida albicans (C. albicans). The overgrowth of this species can lead to opportunistic infection known as candidiasis. Two natural plants, Alpinia galanga rhizome and Alpinia purpurata rhizome, are natural remedies containing flavonoid, saponin, tannin, and triterpenoid used as antifungal component. Purpose: This experimental laboratory study, is aimed to determine the inhibition of Alpinia galanga rhizome and Apinia purpurata rhizome on the growth of C. albicans. Methods: Alpinia galanga rhizome and Alpinia purpurata rhizome were extracted in ethanol solvent using soxhletation method. The ratio test was conducted on those two extracts at the concentration of 10% toward the growth of C. albicans through agar diffusion method. Results: The results showed that 10% Alpinia galanga rhizome extract and 10% Alpinia purpurata rhizome extract were able to inhibit the growth of C. albicans, about 7.33 mm for Alpinia galanga rhizome extract and 6 mm for Alpinia purpurata rhizome extract. The results of statistical tests using independent samples t-test showed that there was no significant difference between the inhibition of 10% Alpinia galanga rhizome extract and that of 10% Alpinia purpurata rhizome extract. Conclusion: In conclusion 10% Alpinia galanga rhizome extract and 10% Alpinia purpurata rhizome extract have weak inhibition on C. albicans growth.

Keyword:

Daftar Pustaka:

Samaranayake LP Essential microbiology for dentistry Churchill, Livingstone, Elsevier 2002 London, UK