Antifungal properties of Allium sativum extracts on Candida species

ABSTRACT

Candida albicans, Candida tropicalis and Candida krusei frequently cause many infections in immunodeficient humans. The infection invariably becomes invasive and disseminate to other body sites. Tests of antifungal effect of Azadirachta indica (Neem), Peperomia pellucida (“ketumpang air”) and Allium sativum (Garlic) extracts on the three Candida species through paper disc diffusion method showed that all the three Candida species were resistant to A. indica and P. pellucida, but susceptible to A. sativum extract. Subsequently, the effect of different concentrations of garlic extract on the growth of C. albicans was evaluated to determine the IC50 and LD50. The effect of garlic extract suggests that sublethal doses can reduce the colonization of Candida species in the oral cavity of humans by suppressing the virulent hyphal growth form.

Keyword: Azadirachta indica; Peperomia pellucida; Allium sativum; Candida species