Abstract

Majority of fungal infection in mouth is caused by \textit{C. albicans}. This case increases parallel with increasing the number of immunosuppressed patient. Mimba (\textit{Azadirachta indica}) is herbal medicine that has been used as antifungal drug. Beside that, mimba has immunostimulatory effect. Macrophage phagocytosis, it’s one of natural immunities that plays an important role in the first immune response against \textit{C.albicans} infection. The purpose of this research was to know the effect of oleum azadirachty in macrophage phagocytosis activity of BALB/c mice that immunosupressed and infected by \textit{C.albicans}. This laboratory experimental research used BALB/c mice that immunosupressed and infected by \textit{C.albicans}, divided into three groups: group 1 (negative control), group 2 (positive control, were immunosupressed and infected with \textit{C.albicans}), group 3 (was immunosupressed, infected with \textit{C.albicans}, and given 75 µl oleum azadirachty). Mice were immunosupressed given by 2-3mg/mice subcutan injection of prednisolon one day before infected. Group 2 and group 3 were given tetracycline hydrochloride in drinking water (0.83mg/ml) since one day before infected. \textit{C.albicans} inoculation was given at zero day. On the 2\textsuperscript{nd} day post infection, mice were acclimated and the macrophage phagocytosis activity was evaluated by latex beat. Data was analysed by One Way Anova test and LSD (p=0.05). The result showed that there was significant difference between group 2 and group 3. In conclusion, oleum azadirachty could increase macrophage phagocytosis activity.

Key words: \textit{C.albicans}, immunosuppression, oleum azadirachty, macrophage, phagocytosis