ANTIFUNGAL EFFECT OF 
Garcinia mangostana Linn PEEL EXTRACT
TOWARDS Candida albicans ON ORAL CANDIDIASIS PATIENT’S WITH
HIV / AIDS (IN VITRO STUDY)

ABSTRACT

Background. The increased prevalence of oral candidiasis associated with HIV infection must be intrinsically related to host immunological changes. Oral candidiasis caused by Candida albicans is recognized as one of the most frequent opportunistic infections in HIV/AIDS patients. Mangosteen as one of medicinal herbs that grows on tropical area, its peel provides many benefits, one of them as an antifungal. Purpose. The aim of this study was to account the antifungal effect of mangosteen peel extract towards the growth of oral Candida albicans from HIV/AIDS Patient’s. Methods. This study was done using Candida albicans colony from the oral lesions of patient living with HIV/AIDS at 4th stage. The inoculum was incubated in Sabouraud Dextrose Agar (SDA) to let the Candida albicans grow. Mangosteen peel extract was diluted in different concentration: 100%, 50%, 25%, 12.5%, 6.25%, 3.125%, 1.56%, 0.78%. Inoculum were dipped in Mangosteen peel extract and grow on at agar media with spreading technic. After 24 hours, colony of Candida albicans would be counted. Results. At concentrations of 100%, 50%, and a negative control showed no growth of Candida albicans, whereas at a concentration of 25%, 12.5%, 6.25%, 3.125%, 1.56%, 0.78% showed colony growth of Candida albicans. These mean the minimum concentration of mangosteen peel extract which can inhibit the growth of Candida albicans colonies is 25%. Conclusion. Mangosteen peel extract has an antifungal effect towards Candida albicans colony from oral lesions of patient living with HIV/AIDS at 4th stage that is minimum concentration to inhibit the growth of Candida albicans is 25% and minimum fungicid concentration is 50%.

Keywords: Garcinia mangostana L, Oral Candidiasis, HIV/AIDS, Candida albicans, Colony count