



In Vitro Evaluation of Green and Red Propolis Extracts Against Candida spp.

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Abstract

In different countries, propolis has been used as food supplement, which provides organic balance of immune system and as alternative treatment for some diseases^{1,2}. Studies have shown that due to the presence of flavonoids in its chemical composition², propolis has anti-inflammatory immunomodulator, antiproliferative, antibacterial, antiviral and antioxidant properties^{2,3}. Candidiasis caused by species of *Candida* genus has high incidence due to the increasing number of immune suppressed people. It has been observed an enhancement of resistance of these fungi to the actual antifungals³. In this work ethanol extracts of green (GrProp) and red propolis (RdProp) were subjected to *in vitro* assays against six *C. albicans* ATCC strains and 10 clinical isolates. Minimum inhibitory concentration of extracts was determined. The extracts stood out in relation to the growth inhibition of all ATCC *Candida* tested, with concentrations varying from 125.0-1000.0µg/mL (25% RdProp) and 500-2000µg/mL (100% GrProp). In relation to inhibition of growth of all tested *Candida spp.*, best results were found for extract 25% RdProp (125-1000µg/mL) and 100% GrProp (500 -2000 µg/mL). Due to observed anti-*Candida* activity was inferred that RdProp have potential to be used against candidiasis.

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