

In vitro* evaluation of biological activity of the hydroalcoholic extract of *Anadenanthera colubrina* (Vellozo) Brenan against *Candida albicans

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Candidiasis, also called candidosis, is a fungal infection caused by *Candida* yeasts. *C. albicans* is an opportunistic pathogen that inhabits the human body commensal form, having been isolated in the mouth, digestive tract intestine, oropharynx, vagina and skin. This species is quite virulent and has considerable morphological plasticity, which ensures pathogenicity. *Anadenanthera colubrina* (Vellozo) Brenan, plant known in northeastern Brazil as angico, is widely used in traditional folk medicine to treat breathing problems and inflammation. This study aimed to evaluate the antifungal activity, determine the minimum inhibitory concentration (MIC), the minimum fungicidal concentration (MFC), fungal kinetics (death curve), and to evaluate the hemolytic activity and the effect of hydroalcoholic extract (EH) the angico on the formation of germinative tube using the *C. albicans* strain ATCC 76485 and strains of ambulatory origin. Tests to evaluate the antifungal activity, determining the MIC and MFC were performed by broth microdilution (CLSI, 2008). To evaluate the effect of angico EH on fungal growth was used fungal kinetics. The germinative tube was determined by the microculture in serum. To assess the hemolytic used a suspension of animal erythrocytes. The results showed antifungal potential of the hydroalcoholic extract angico against *C. albicans* presenting MIC 1.0 mg/mL. Regarding fungal kinetics, it was observed that the hydroalcoholic extract angico showed better time of action within 6 hours after the initial incubation time (T_0), confirming fungistatic activity was detected by the reduction from the initial inoculum equivalent to 10^6 CFU / ml to 10^4 CFU/mL, reaching a peak at 4 hours. The hydroalcoholic extract angico was able to inhibit the formation of germinative tube and was not hemolytic at a concentration of 1mg/ml. Evidence of antifungal activity of *Anadenanthera colubrina* enables future studies aiming the isolation and identification of their bioactive compounds and to evaluate new biological activities of this plant.

Key words: Medicinal plants; angico; Candidiasis, germinative tube, hemolysis

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