

TITLE: PHYTOCHEMICAL PROFILE AND ANTIOXIDANT AND ANTIFUNGAL TEST OF ETHANOLIC EXTRACTS OF *Senna siamea* LEAVES

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ABSTRACT:

Senna siamea (Fabaceae) is a native plant from Thailand and Southeast Asia, popularly known as “cássia-de-sião”. This specie is often used in folk medicine for the treatment of gonorrhea and malaria. The present study aimed to evaluate the phytochemical prospection, antioxidant and antifungal activity of the ethanolic extracts of *S.siamea* leaves against dermatophytic and yeast fungi. The phytochemical profile was made with chemical reactions that result in color change and / or precipitate formation for each substance class. The method used to evaluate an antioxidant activity was the free radical scavenging 2, 2-diphenyl-1-Picrylhydrazyl -DPPH, of purple color. The Minimal Inhibitory Concentration (MIC) and Minimum Fungicide Concentration (MFC) of the extract in relation to the microorganisms were determined by the Broth Microdilution Method recommended by CLSI (Clinical Laboratory Standards Institute). As a control, Ketoconazole was used for dermatophytes and Amphotericin B for yeasts. The phytochemical analysis of the ethanolic extract of the leaves of *S. siamea* showed the presence of phenols and tannins. For antifungal activity, there was no inhibition for (ATCC) *Candida parapsilosis* and (URM 6753) *C. krusei* strains. In contrast, the leaves showed activity against *C. albicans* (ATCC) with MICs of 0.15 mg / ml and the MFCs of 0.31 mg / ml. For the dermatophyte species *Trichophyton rubrum* (6753), the leaves of *S. siamea* presented antifungal activity with MIC observed at the concentration of 1.25 mg/ml and MFC of 2.5 mg/ml. The leaf extract of *S. siamea* had antioxidant activity at concentrations of 10 mg/ml and 5.0 mg/ml. It was observed that the antioxidant and antifungal activity of the *S.siamea* leaves is correlated with the presence of phenols and tannins found in the extract. Therefore, the leaves of *S. siamea* are a potential source of bioactive compounds, however with moderate antioxidant and antifungal properties.

Keywords: assays, biological activities, drugs, infections.

Development agency: CAPES: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior