

TITLE: EVALUATION OF THE ANTI-CANDIDA POTENTIAL OF THE *BYRSONIMA COCCOLOBIFOLIA* HYDROALCOHOLIC EXTRACT

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ABSTRACT:

The medicinal plants have a valuable contribution to the advancement of new therapeutic strategies through their secondary metabolites. Plants of the genus *Byrsonima* (Malpighiaceae), popularly known as "murici-red" or "murici-cascudo", represent a rich source of catechin and epicatechin derivatives. In folk medicine, they are generally used as tea for the treatment of gastric ulcers, infections, inflammation of the skin, fever and asthma. However, some species present scientifically proven pharmacological activities, being predominantly investigated for its antimicrobial, anti-inflammatory and antifungal action. In light of the ethnopharmacological potential and due to the rapid appearance of pathogenic fungi resistant to multiple drugs, the objective of the present study was to evaluate the anti-*Candida* activity of the hydroalcoholic extract of the leaves of *Byrsonima coccolobifolia*. In order to evaluate its antifungal potential, different concentrations of the extract were tested against the strains of *Candida albicans*, *C. glabrata*, *C. krusei*, *C. parapsilosis* and *C. tropicalis* by the microplate dilution technique in order to determine the minimum inhibitory concentration (CIM), as well as the minimum fungicidal concentration (MFC). According to the results, *B. coccolobifolia* presented antifungal activity with MIC of 7.8 µg/mL for *C. glabrata* and 15.6 µg/mL for all other species, being fungicide at the concentration of 125 µg/mL only against *C. krusei*. In conclusion, the present study supports the antifungal properties of *B. coccolobifolia* extract, and in view of the drug resistance, it contributes to the search for new natural products with biological activities. However, investigating the mechanisms of action is the key to pharmacological development, so it is important that more studies are conducted.

Keywords: anti-*Candida*, antifungal, *B. coccolobifolia*, minimum inhibitory concentration

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