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SEARCH FOR SECONDARY METABOLITES FROM BACURI FRUIT (Platonia insignis) WITH POTENTIAL ANTIPARASITIC ACTIVITY

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The use of natural products as an original and valuable source of new active molecules can be very effective and important in the development of new drugs as a therapeutic strategy to improve the treatment of neglected tropical diseases. The incessant search for new drugs from plants has led scientists to the discovery of many metabolites with potential for drug development through the isolation, elucidation of structure, composition and evaluation of bioactivity based on phytochemical composition and uses in traditional medicine. Folk medicine describes the use of the plant Platonia insignis Mart., popularly known as "bacurizeiro", a member of the Clusiaceae family, found predominantly in the north and northeast regions of Brazil. The species *Platonia insignis* Mart. has been extensively studied and has gained prominence for its pharmacological potential as a source of products with healing, antimicrobial, antitumor, antioxidant, and anti-inflammatory properties, as well as for the treatment of skin diseases and diarrhea. Bacuri seeds are rich in fatty acids like triacylglycerols, and metabolites with potential therapeutic activity, such as xanthones, biflavonoids and polyisoprenylated benzophenones. In this context, this work aims to develop a phytochemical study to identify and isolate bioactive compounds from shell and seeds of bacuri fruit, which are usually discarded, and evaluate their antiparasitic activities. To achieve these goals, the different parts of the fruit (shell: 1.56 kg and seed: 850 g) were separated, and the plant material was then subjected to extraction by maceration at room temperature in DCM:MeOH (1:1, v/v) in a closed container for up to 10 days. Subsequently, the extracts were filtered and concentrated under reduced pressure at 40°C. The crude extract of the shell and seed was suspended separately in water and partitioned using a liquid-liquid extraction process resulting in fraction in hexane, dichloromethane and n-butanol. The remaining aqueous fractions were frozen for later lyophilization. To improve the biological activity of the isolated compounds, molecular planning will be carried out to perform semisynthesis through low-complexity reactions to modify the molecules of the isolated compounds, in order to alter some important parameters in molecular activity, such as toxicity, selectivity, lipophilicity and bioavailability.

Keywords: *Clusiaceae family, Platonia insignis, Bacuri, phytochemical, crude extract.*