Biological Activity and Phytochemical Approach of the Medicinal Plant Barbatimao (Stryphnodendron adstringens)

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The medicinal plant Stryphnodendron adstringens is a native species of the Brazil. The objective of this research was to investigate the biological activities of the hydroalcoholic extract of barbatimão bark and the phytochemical and pharmacological applications related to the extractivism of the species. For this, techniques were designed to register the plant in a botanical collection. I realized tests to produce and evaluate the chemical characteristics of the hydroalcoholic extract of S. adstringens in order to evaluate the antibactericidal activity in bacterial strains and the efficiency and validity of these in phytotherapeutic products. The results showed that the plant can be used, mainly as cicatrizant. The extractivism of the plant is constant making the inadequate removal of the bark for medicinal purposes, compromising the development of the species, especially in adult plants. The studies for the chemical and biological characterization of the stem bark extract of S. adstringens showed browning, in gradation with concentration, neutral pH and organoleptic characteristics for prolonged medicinal use in phytotherapics such as shampoo, soap and ointment, with minimum validity 12 months. Tests of chemical prospection highlighted the abundant presence of mucilage, saponins, phenols, flavonoids and starches. The antibacterial activity for bacterial strains of Escherichia coli was demonstrated at concentrations of 250 mgl.ml-1 showing moderate inhibition activity. For the bacteria S. aureus, no bactericidal action was observed at the barbatimão concentrations tested. The results obtained allow us to affirm that the barbatimão plant has medicinal potential to be used in the treatment of bacterial diseases and for exploitation in the pharmaceutical industry.

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