

Antidiabetic and toxic evaluation of polar extracts of *Myrciaria dubia*, *Coussapoa asperifolia* and *Remigia pedunculata***Victor Sotero**

National University Intercultural of the Amazon (UNIA), Peru

The aim of this work is to evaluate three plant species in order to observe their behavior as antidiabetic with the polar extracts of *Myrciaria dubia* (fruit), *Coussapoa asperifolia* (bark) and *Remigia pedunculata* (leaf), native to the Peruvian Amazon, were evaluated in terms of their antidiabetic activity (AAD), and toxic (ACT) in vitro and in vivo, according to the following methodology: a) AAD to inhibit the α -glucosidase, and b) ACT, evaluate the dose lethal in front of *Artemia franciscana*. For the in vivo assays, the AAD and ACT assays were performed, for the first, the extracts were administered to 10 Albino mice and diabetics (induced with streptozotocin), in concentrations of 100, 500 and 1000 mg/kg, for one hour, evaluating the glycemia index, and acute toxicity test was performed, administering to the mice a concentration of 2000 mg/kg of the extracts under 14 days. In addition, analyzes of the main chemical families were carried out using UV/Vis spectroscopy for phenolic

compounds, alkaloids and saponins of the methanolic extracts of the three species. According to the results, these species have an important antidiabetic activity, obtaining a percentage of inhibition against α -glucosidase in extracts of 500 μ g/ml of 51.5%, 40.7% and 97.4%, for *M. dubia*, *R. pedunculata* and *C. asperifolia* respectively. Thus, according to the results of acute toxicity, they did not present some toxicological problems in certain organs and the lowest glycemic indexes in diabetic mice was in the concentration of 1000 mg/kg where there were obtained: 92.6, 96.8 and 96.8 mg/dl, for *M. dubia*, *C. asperifolia* and *R. pedunculata* respectively. The highest concentration in secondary metabolites were the phenolic compounds being 794.1 mg/g in *M. dubia*; 324.7 mg/g in *R. pedunculata* and 214.5 mg/g in *C. asperifolia*.

e: pproyectopalmeras@gmail.com