CHEMICAL PROFILE AND EVALUATION OF ACUTE TOXICITY OF *Allophylus edulis* (A. St.-Hil., A. Juss. Cambess &.) Hieron. ex Niederl

Tirloni, CAS¹; Traesel, GK¹; Costa, HMG²; Victol, NS²; Takegava, VF²; Donatini, RS¹; Souza, KP³; Santos, EL³

¹Faculdade de Ciências da Saúde, Universidade Federal da Grande Dourados, MS, Brazil; ²Faculdade de Farmácia, Centro Universitário da Grande Dourados, MS, Brazil; ³Faculdade de Ciências Biológicas, Universidade Federal da Grande Dourados, MS, Brazil.

**Introduction and objectives:** *Allophylus edulis* (cocum, vacuum) is a Brazilian plant that is commonly used in the mid-west region of Brazil to treat disorders such as diabetes, inflammation, hypertension, and digestive diseases. Considering the ethnomedicinal use, this study aimed to quantify flavonoids and phenolic compounds, and to assess acute toxic activity of leaves of *A. edulis*. **Materials and methods:** Ethanolic extracts of *A. edulis* (EEAE) leaves was prepared by maceration; the content of total polyphenols was determined by Folin Ciocalteau method and expressed in terms of gallic acid equivalent (GAE); the levels of total flavonoids was determined by aluminum chloride method and expressed in quercetin equivalent (QE); the acute toxicity was assessed in Wistar rats using doses of 2 and 5 g/kg body weight. **Results and conclusions:** The concentrations of phenolic compounds and flavonoids were 17.6 ± 0.6 GAE/100 mg and 2.0 ± 0.3 QE/100 mg, respectively. In the test of acute toxicity, only the highest dose of 5 g/kg of EEAE caused an increase in liver weight, suggesting hepatotoxicity at this dose. However, in the group treated with EEAE (2 g/kg), no alterations were observed in the organs or in the hematological, biochemical and toxic parameters assessed. Therefore, based on the guidelines of the Organization for Economic Co-operation and Development, the lethal dose (LD₅₀) of *A. edulis* is probably higher than 5 g/kg and EEAE can be considered an extract of low toxicity. These results corroborate the chemical composition described in the literature for this species and may explain its beneficial biological effect. However, further studies are needed to evaluate the overall safety of the plant for human consumption.

Acknowledgments: The authors thank Capes, Fundect and CNPq for financial support.

Keywords: cocum; flavonoids; polyphenols.