Evaluation of possible antioxidant effects of the ethyl acetate fraction from *Platonia insignis* Mart. (Bacuri) on epilepsy models

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**Introdução**

*Platonia insignis* Mart. is a member of the Clusiaceae family commonly known as bacuri and is a native species of the Brazilian Amazon that is harvested for timber and fruit. *P. insignis* seed oil has been used to treat various skin diseases in both humans and animals, and the seed decoction has been used to treat human diarrheal and inflammatory diseases. The seeds collected from the fruits of *P. insignis* were dried at 55°C under shade and powdered mechanically. 848 g of crushed seeds was extracted with hexane (63%, w/w), followed by 95% ethanol (5.8%, w/w) in a Soxhlet apparatus (8 h for each solvent). In the ethanolic extract it was added 100 mL of water, which was then fractionated using polarity increasing solvents. The ethanolic extract was fractionated with ethyl acetate (7 x 100 mL) to obtain an ethyl acetate soluble fraction. The aim of present study was to examine the effects of the ethyl acetate fraction (EAF) from *P. insignis* on lipid peroxidation level, nitrite formation, and superoxide dismutase and catalase activities in rat striatum prior to pilocarpine-induced seizures. Wistar rats were treated with vehicle, EAF (0.1, 1, and 10 mg/kg), pilocarpine (400 mg/kg, P400 group), EAF + P400.

**Resultados e Discussão**

The main constituents identified were xanthones (76.19%): alpha-mangostin (M+ 410; 38.26%) and 1,3,5,6-tetrahydroxy-2-(2-methylbut-3-en-2-yl)-7-(3-methylbut-2-etyl)xanthen-9-one (M+ 396, 37.93%). Other relative abundant constituents identified were fatty acids (19.71%) (9-Hexadecenoic acid (0.61%), Hexadecanoic acid (5.21%), heptadecanoic acid (0.61%), 9,12-octadecadienoic acid (0.57%), 10-octadecenoic acid (5.20%), and 9-octadecenoic acid (3.86%). Other constituents were also identified: di-(9-octadecenyl)-glycerol (0.72%) and geranyl linalool (1.22%) (Table 1).

Significant increases in lipid peroxidation and nitrite levels; however, there were no alterations in SOD and catalase activities. In the EAF 10 + P400 group, lipid peroxidation and nitrite levels significantly decreased and SOD and catalase activities significantly increased after pilocarpine-induced seizures (Table 2).

**Conclusões**

Our results indicate that in the in vivo model of pilocarpine-induced seizures, EAF has antioxidant activity at the doses tested.

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