Evaluation of *Ceiba speciosa* bark (Paineira) as the Antioxidant Potential and Lipid Accumulation in *Caenorhabditis elegans*.

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Introduction: Plants are widely used in folk medicine for their pharmacological properties. *C speciosa* is native high and popularly used for reducing the levels of cholesterol and triglycerides. However, studies confirming this use are lacking in the literature. Objective: Evaluate the lipid-reducing effects of aqueous stems extract of *C. speciosa* and also to evaluate its antioxidant effects by using *Caenorhabiditis elegans* as experimental model. **Materials and Methods**: The aqueous extract was prepared by decoction of stems of *C. speciosa* in distilled water is subjected to heating with periodic stirring until boiling and maintained under these conditions for 30 minutes. The extract was filtered and the collected liquid was dried by lyophilization, resulting in the lyophilized aqueous extract of *C. speciosa* (EALCs). *In vitro* radical scavenging activity DPPH method. *C. elegans* N2 (wild type) was obtained from *the CGC*. The synchronization was performed, L1 stage worms were exposed to the strems extract. The determination of stress resistance was assayed by using paraquat (0.5mM) as stressor agent. Worms were acutely pre-treated with extracts at 0.01%,0.05%,0.1%and 0.5%. To measure triglycerides, worms were treated, homogenized and the assay was perfomed by using a kit. The results are displayed as mean±SE. It was performed ANOVA followed by Tukey post hoc test ($p < 0.05$). **Discussion and Results:** In our tests, we found no toxic effects of *C.speciosa*. However, the extract has scavenging activity at 0,5%, confirming the possible antioxidant potential. Furthermore, our results show that the extract protects against toxicity induced by paraquat (0,5mM), which is a superoxide radical generator. We also observed that the extract reduces triglycerides at 0,05%. **Conclusion:** The extract of the stem of *C. speciosa* showed antioxidant potential against a strong pro-oxidant and a lipid-reducing potential, which may confirm a pharmacological potential of this extract.

Key words: Antioxidant activity, *Caenorhabditis elegans*, *Ceiba speciosa*.