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LIPID PEROXIDATION INHIBITION BY METHANOLIC EXTRACTS OF FOUR DIFFERENT ENDOPHYTIC FUNGI ISOLATED FROM *Bauhinia variegata*

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Endophytic fungi are microorganisms that colonize internal tissues of plants and have been proved to be an important source of natural active products, such as anticancer, antidiabetic and antioxidants, which make them valuable to pharmacological research. In the aerobic metabolism, cells produce oxidizing substances that are neutralized by antioxidant systems of the organism. However, the production of oxidants can be higher than the ability of reparation in human tissues, leading to degenerative effects such as cancer, heart disease, Alzheimer's disease, and even the aging process. Secondary metabolites of plants and microorganisms present diverse biological activities, among them antioxidative activity. The purpose of this study was to investigate the lipid peroxidation inhibition of methanolic extracts of four different endophytic fungi isolated from *Bauhinia variegata* leaves, plant grown on the Cerrado biome, Brazil. Methanolic extracts were produced and the ethyl acetate fraction of extracts is produced by fungi I and methanolic fraction of the extract produced by fungi II, III and IV were evaluated for the determination of lipid peroxidation inhibition by Laokuldilok, T. and coworkers (2011) method. The results showed endophytic fungi isolated from *Bauhinia variegata* leaves the present activity for lipid peroxidation inhibition, particularly extracts produced by fungus II and III, which demonstrated activity similar of α -tocopherol, the positive control used. The study, the first with methanolic extract from endophytic fungi isolated from *Bauhinia variegata* leaves, reports these fungi produce metabolites with antioxidant activity, so they can be investigated as a source of novel bioactive compounds.

Biography

Daniela Gurgel de Freitas has graduated in September 2014 as pharmaceutical at the University of Brasilia and started her master studies at University of Brasilia six months later, in march 2015. She studies the effects of endophytic fungi in the process of premature skin aging.

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