Evaluation of Antioxidant Activity of *Centella asiatica* (L.) Urb and *Combretum leprosum* Mart and its Major Triterpenes: Asiatic and Arjunolic acids.

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Centella asiatica (L.) Urb (Apiaceae) has acidic triterpenes and their glycosides as major compounds, as asiatic acid, madecassic acid, asiaticoside and madecassicoside. *Combretum leprosum Mart*. belongs to the family Combretaceae and is rich in arjunolic acid. In this work, the alcoholic extracts from both plants, their acidic fractions and their major acids (asiatic and arjunolic acids) were evaluated for their capacity to inhibit the reduction of the free radical, 1,1-diphenyl-2-picrylhydrazyl (DPPH), and to protect *Saccharomyces cerevisiae* cells, an eukaryotic cell model, against the lethal oxidative stresses caused by peroxide and superoxide. Only the crude extracts showed to be active as DPPH radical scavengers, showing IC50 around 40 µg/mL. However, all of them, extracts, fractions and both acids were able to increase the tolerance of *S. cerevisiae* to oxidative stress, thus indicating that these plant extracts and asiatic and arjunolic acids could be considered as potential sources of antioxidants. Compounds like terpenoids and fatty acids are unable of scavenging the DPPH free radical but are able to avoid oxidative damage of cell membranes. Confirming this hypothesis, both asiatic and arjunolic acids reduced the levels of lipid peroxidation caused by oxidative stress.

Keywords: antioxidants, oxidative stress*, Saccharomyces cerevisiae*