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Antioxidant activity of polar extracts from different botanical parts of *Coleostephus myconis*

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Under stress, human body produce more reactive oxygen and nitrogen species (ROS/RNS) than enzymatic antioxidants and non-enzymatic antioxidants (*e.g.*, vitamin C, vitamin E, glutathione, carotenoids, and flavonoids), causing an imbalance that may lead to cell damage and health problems [1]. Antioxidants can block the complex networks of oxidative damage pathways at different levels, yielding an overall therapeutic effect. Consequently, antioxidants that are exogenously acquired from diet may have important functions in redox cell homeostasis and can be important for cellular function and disease prevention [2]. Antioxidant compounds might be isolated and characterized from different plant parts like roots, stem, bark, leaves, flowers, fruits and seeds [3].

Herein, different polar extracts (water, ethanol and water:ethanol 1:1) obtained from the green parts and three floral stages of *Coleostephus myconis* (*Asteraceae*) were evaluated for their antioxidant activity, using different *in vitro* chemical and biochemical assays. All the studied botanical parts showed high antioxidant potential, either considering their reducing power, radical scavenging activity and lipid peroxidation inhibition. Independently of the studied botanical part or antioxidant assay, the hydro-alcoholic extract gave the best results. Furthermore, significant differences were detected among the green parts and each of the flowering stages. In conclusion, the results highlighted the possibility of using *C. myconis* as a potential source of bioactive compounds with several possible application.

References:

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