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Preliminary Phytochemical Screening, *In Vitro and In Vivo* Antioxidant Activities of C*ynodon Dactylon* (L.)Pers.

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Abstract : The present study was carried out to evaluate preliminary phytochemical and antioxidant activity (*in vitro and in vivo*) of the whole plant of Cynodon dactylon. Preliminary quality chemical test for different extract revealed the presence of alkaloids, flavonoids, phenolic compounds, tannins, sterols, saponins, glycosides, protein, and carbohydrate. The total phenolic, tannin and flavonoid content of aqueous plant extracts were 51.91 ± 1.20 mg GAE/g, 23.74 ± 2.99 mg GAE/g and 23.45 ± 0.07 mg RE/g respectively. The Cynodon dactylon exhibited significant *in vitro* antioxidant activity by DPPH method, hydroxy radical scavenging activity, reducing power and lipid peroxide free radical scavenging assay. The *in vivo* antioxidant activity by a significant decrease (36.9%) in the liver TBARS levels and increased glutathione peroxidase (GP_X), Superoxide dismutase (SOD) and catalase antioxidant enzyme levels.

Keywords : Cynodon dactylon; antioxidant activity; in vitro; in vivo; aqueous plant extracts.

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