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**In-Vitro Antioxidant Activity of Siddha Herbal Preparation, Vellargu choornam**

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Vellargu choornam is a herbal preparation of the Siddha drug mentioned in the Siddha Medical literatures for the treatment of arthritis, oedema, gastro intestinal tract ulcers, itches, and diabetes mellitus. The main constituent of chooranam is whole plant of *Enicostemma littorale* Blume. The total phenolic and total flavonoid contents of chooranam were determined as Gallie acid equivalents (mgGAE/ g) and Quercetin equivalents (mgQE/ g) respectively. Hot aqueous and methanol extracts of the chooranam were screened for their potential in-vitro antioxidant activities using tests such as 2, 2- diphenyl-1-picrylhydrazyl (DPPH) activity, Ferric-reducing antioxidant power (FRAP) assay, 2, 2' - azinobis-(3-ethyl-benzothiazoline- 6-sulphonic acid) (ABTS) activity, and iron chelating activity. The maximum yield of the extracts, total phenolic and flavonoid compounds were recorded in methanol (21.76%; 44.41±1.26 mgGAE/g; 174.44±9.32 mgQE/g) and aqueous (36.29%; 20.11±0.92 mgGAE/g; 42.74±2.82 mgQE/g) fractions respectively. Iron chelating activity was not found at 1.75 mg/ml concentration of hot methanol and aqueous extracts of chooranam. Overall results of in-vitro antioxidant activity assays indicated that in comparison to the standard trolox, Vellargu choornam has no significant ( $P \leq 0.05$ ) antioxidant activity. Phenolic and flavonoids component have been reported to exert significant antioxidant activity. Although the total phenolic and flavonoids component were detected in the hot methanol and aqueous extracts, these does not appear to be reported a correlation between the observed in-vitro antioxidant activity and total phenolic and flavonoids component of Vellargu choornam. Therefore, antioxidant activity does not appear to be a major mechanism for which Vellargu choornam exerts beneficial effects in inflammatory conditions.

**Keywords:** Activity, In-vitro antioxidant, Herbal Preparation, Vellargu choornam,

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