

OP 20 - *In vitro* screening of total phenolic content, flavonoid content, free radical scavenging capacity, and inhibition of lipid peroxidation of *Cleistanths collinus*

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Introduction: *Cleistanths collinus* is a medicinal herb used in traditional systems of medicine in Sri Lanka. It is considered a rich source of bioactive compounds as they are able to produce a variety of secondary metabolites with anticancer and antioxidant properties.

Methods: In the present study, the bark of the plant was used and ultrasound-assisted water extract was prepared in order to screen Total Phenolic Content (TPC), Total Flavonoid Content (TFC), free radical scavenging capacity, and inhibition of lipid peroxidation. TPC and TFC of the extract were determined using the Folin-Ciocalteu reagent and aluminum chloride (AlCl₃) method respectively. Antioxidant capacity was evaluated using DPPH radical scavenging assay. Inhibition of lipid peroxidation was determined using the standard protocol.

Results: The TPC and TFC were 298.68±0.01mg GA/g (Gallic Acid /g) and 546.12±0.01 mg EGCG/g (epigallocatechin gallate) /g) respectively. BHT (Butylated hydroxytoluene) was used as a positive control and TPC of BHT was 256.12±1.21 mg GA/g. The DPPH radical scavenging property was IC₅₀, 4.91±1.63 µg/mL whereas Gallic acid (Positive control) and BHT was IC₅₀ 4.56±2.31 µg/mL and 46.51±1.13 µg/mL respectively. The inhibition of lipid peroxidation was IC₅₀, 6.09±0.55 µg/mL whereas ascorbic acid (Positive control) was 51.2±0.01 µg/mL

Conclusion: The results of the study revealed the high bioactivity and antioxidant capacity of the plant extract

Key words: *C. collinus* 1, DPPH 2, TPC 3, TFC 4, Lipid peroxidation 5

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