Determination of Antioxidant Activity of *Curcuma longa* Linn. (Nanwin)

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Abstract

The evaluation of antioxidant potential of food has received much attention in recent years. Antioxidants are compounds that can delay or inhibit the oxidation of lipid or other molecules by inhibiting the initiation or propagation of oxidative chain reaction. Turmeric (*Curcuma longa* Linn.) belongs to the family *Zingiberaceae* and it has been traditionally used for centuries in Asian cuisine. Its dried and ground tuber is used worldwide as a spice in curry and as an additive for a variety of products that require medically acceptable intense yellow color. This study was focused on the investigation of phytoconstituents from the dried turmeric rhizome and studying their antioxidant activity. Phytochemical investigation on *Curcuma longa* Linn. rhizome revealed the presence of alkaloids, amino acids, carbohydrates, flavonoids, phenolic compounds and saponins. The antioxidant activity of ethanolic extract of *curcuma longa* Linn. was assessed by DPPH radical scavenging activity assay. The *Curcuma longa* Linn. (Nanwin) possesses antioxidant activity (IC_{50} =139.1ppm) when compared to standard antioxidant, ascorbic acid (IC_{50} =38.32ppm).

Keywords: *Curcuma longa* Linn., antioxidant , DPPH assay, phytoconstituents, *Zingiberaceae.*

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