



Comparative Evaluation of the Antioxidant Activity of Some commonly used Spices

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Abstract: The antioxidant activity, total phenolic content (TPC) and total flavonoid content (TFC) of four natural spices namely fennel fruits (*Foeniculum vulgare*), fenugreek seeds (*Trigonella foenum-graecum*), coriander seeds (*Coriandrum sativum* Linn.) and black pepper fruits (*Piper nigrum*) were investigated. In antioxidant assay, DPPH (2,2-diphenyl-1-picrylhydrazyl) scavenging activity and ferric reducing activity studies were performed using ascorbic acid and gallic acid as standard antioxidants, respectively. *In-vitro* antioxidant study of the methanolic extracts of the tested condiments showed significant activity in DPPH method with appreciable lowIC₅₀ values. The ferric reducing properties of these spices were also found to be appreciable. The TFC and TPC revealed that the spices had high contents of phenolics and flavonoids. These studies suggested that these spices can be used as rich sources of natural antioxidants against various oxidative stress related diseases.

Keywords: Spices, Flavonoid content, phenolic content, DPPH assay, Ferric reducing power.

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