

In vitro antioxidant studies of *Momordica cymbalaria*

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Momordica cymbalaria is a well known plant species since ancient times for use in the treatment of various ailments. Recently, it is well documented that this species found to have significant anti-diabetic activity. This investigation was aimed at assessing the hydro-alcoholic extracts of various parts such as aerial parts, fruits and roots for their antioxidant activity. Pharmacognosy studies, extraction, phytochemical analysis and *in vitro* antioxidant activity studies were carried out. The antioxidant activity studies were carried out by ferric ion reducing, ABTS free radical scavenging, nitric oxide scavenging and total antioxidant assays. Ferric ion reducing power of aerial parts extract was found to be higher compared to fruits and root extract. However, nitric oxide scavenging activity was found to be higher for fruits extract followed by aerial parts and roots. The same trend was followed in the cases of ABTS radical scavenging activity and total antioxidant activity. IC₅₀ value of ABTS radical scavenging activity of fruits extract was found to be 13 µg/ml compared to the standard compound Ascorbic acid which has IC₅₀ value of 4.3 µg/ml. The total antioxidant activity of fruits extract was found to be 95.27 mg equivalents of ascorbic acid per gram. These potential antioxidant activities of the extracts have far reaching implications in further exploring this species for further studies in this direction.

Key words : *Momordica cymbalaria*, Plant extracts, Antioxidant, Free radical scavenging

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