

ANTIOXIDANT ACTIVITY OF *GYMNEMA SYLVESTRAE* STORED FOR SIX MONTHS AT 4⁰C AND ROOM TEMPERATURE

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All living beings have potent to expose to oxidative damages. Preventive actions therefore should be taken to minimize the oxidative damage in bio molecules it will lead to health problems. Aim of the present study is to evaluate the antioxidant activity of the leaf of *Gymnema sylvestre* by Ferric Reducing Power Assay. (yildirm, et, al, 2001) .it is one of the ingredients of preparation of several anti diabetic preparations used by Siddha, Ayurvedha and Unani medicine. The cold and hot extracts were obtained from the leaf of *Gymnema sylvestre* was assessed by monthly interval for six month determined by Ferric Reducing Power Assay the cold and hot extracts were obtained from the powder of *Gymnema sylvestre* stored at room temperature and at 4 °C in monthly interval for six months. And Anti oxidant capacity was measured. The initial TAC of cold and hot water extracts was (581.0), (527.0) µg/ml dry weight respectively.) The EC50 value (reverse order of antioxidant activity). When the powder was stored at room temperature for a month and the TAC was analysed, the cold and hot water extracts contained (942.5), (496.8) µg/ml dry weight respectively. when the leaf of *Gymnema sylvestre* powder was stored at room temperature for 6 months, TAC of cold and hot water extracts was (3358.6), (2658.3) µg/ml weight respectively While the TAC of cold and hot water extracts of the *Gymnema sylvestre* powder stored at 4°C for six months respectively was (3017.9), (2717.9)µg/ml dry weight Extraction of antioxidant activity was better with hot water than with cold water. When the Hot extracts of *Gymnema sylvestre* powder contained higher antioxidant activity (lower EC50 i.e. the reverse order of antioxidant activity value (496.8) µg/ml than cold extracts (Highest EC50 value (942.5), at Room temperature and hot extracts contained higher antioxidant activity (lower EC50 value (2658.3) µg/ml than the cold extracts at 4°C (Highest EC50 value (3358.6), Antioxidant activity was higher in the powder preparations when stored at 4°C . TAC of the leaf of *Gymnema sylvestre* powder decreased when stored both at room temperature and at 4°C. Both cold as well as hot extracts exhibited antioxidant activity even after storing for 6 months. At 3 months the decline in TAC of the powder stored at Room temperature is higher than that stored at 4°C. In the Siddha Medicine the lifespan of 'Chooranam' which is prepared from herbs is used for 3 months. However freshly prepared powder is recommended for the preparation of the 'Chooranam' *Gymnema sylvestre* powder should be used within 3 month.

Keywords: Antioxidant activity, Ferric reduction method '*Gymnema sylvestre*, Siddha Medicine