



**POTENTIAL ANTI-DIABETIC ACTIVITY OF *Cymbopogon citratus* (D.C.)
Stapf. (TANGLAD) ON ALLOXAN-INDUCED MALE ALBINO MICE**

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ABSTRACT

The effect on different concentrations of *Cymbopogon citratus* (Tanglad) leaf extracts on the blood glucose of albino mice was determined in this study. Twenty four (24) mice were grouped into four treatments corresponding to four concentrations of Tanglad namely, T1- 25% leaf extract, T2- 50% leaf extract, T3 - 75% leaf extract and T4 - 100% leaf extract. All treatments were done in quadruples and mice were subjected to a week of acclimatization followed by induction of Alloxan. Different concentrations of Tanglad leaf extracts were orally given to the mice for 19 days. Blood glucose analysis was obtained using tail-sectioning technique and analyzed with the use of glucometer. Results of the hispathological observations showed that the 100% Tangald leaf extract concentration caused mild degeneration of β -cells and an average within normal limits. A highly significant difference ($p = 0.001$) was also found between Alloxan induced with and without Tanglad treatment. Moreover, multiple comparison suggested that 100% Tanglad concentration proved to be the best in alloxan induced samples. The efficiency of the plant to reduce the blood glucose level of the mice is suggested to be due to phytochemical components such as dietary fiber, essential fatty acids, amino acids, vitamins and minerals.



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