

Hypoglycemic activities of ethanolic *Gynura procumbens* leaves (Pyar-Myee Swe) extracts in rats. Diabetes

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Summary

Traditional medicinal plants including those with anti-hyperglycemic effect have been widely used in Myanmar. Indeed, hundreds of plants were used traditionally for management and/or control of both insulin dependence and non-insulin dependence diabetes mellitus worldwide. There was no recorded evidence of *Gynura Procumbens* leave for its anti-hyperglycemic effect in Myanmar. The present study aimed to evaluate the anti-hyperglycemic potential of *G.procumbens* leaves on adrenaline-intuced hyperglycemic rats. It was a preclinical animal model, conducted during May, 2007 in DMR (upper Myanmar). The extracts (different doses), Glibenclamide and water were administered orally to different groups of adrenaline induced albino rats of both sexes (7 rats in each group). Oral administration of *G. procumbens* ethanol extracts (150 and 300 mg/kg) showed significantly dose dependent hypoglycemic effect in adrenaline induced hyperglycemic rats. The efficacy was comparable with glibenclamide (0.5mg/kg). *G. procumbens* leaves extract with the dosage of 300mg/kg was more potent than glibenclamide at first 2 hours ($p=0.0484$ and 0.0035). Percent inhibition of *G. procumbens* and glibenclamide on hypoglycemic potential was observed at 1 hour (50.3% vs 31.3%), 2 hour (47.6% vs 28.5%) and 3 hour (42.8% vs 37.1%) compared to the negative control. The results suggest that the leave ethanol extract of *G. procmubens* possess anti-hyperglycemic activity.