

# WOUND CARE, TISSUE REPAIR & REGENERATIVE MEDICINE

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## A PRELIMINARY PHARMACOLOGICAL STUDY ON ANTIHYPERGLYCEMIC EFFECT OF EICHHORNIA CRASSIPES MEOH EXTRACT AND SARBABHAT IN SWISS ALBINO MICE

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Glibenclamide is a frequently prescribed blood glucose lowering drug to diabetic patients in Bangladesh. Eichhornia crassipes (Mart) Solms. is an aquatic plant which is found especially in Southeast Asia. Sarbabhat, has been recognized in Ayurveda due to its spiritual and medicinal uses. Since the plant has been reported for blood glucose lowering effects by folk practitioners, so that Eichhornia crassipes (Mart) Solms. and Sarbabhat taken for investigating antihyperglycemic activity in swiss albino mice. Antihyperglycemic activity was determined through oral glucose tolerance tests (OGTT) in mice. Administration of methanol extract of Eichhornia crassipes (Mart) Solms. to glucose-loaded mice at a dose of 400 mg per kg body weight led to reduction in blood glucose level by 41.61 %. Comparing with Control, glibenclamide, when administered at a dose of 10 mg per kg reduced blood glucose level by 46.12%. Administration of Eichhornia crassipes (Mart) Solms at doses of 50, 100, 200, 400 mg per kg led to, respectively, reductions in blood glucose levels by 22.48, 31.20, 36.57 and 41.61 %. On the other hand, administration of Sarbabhat found highest percentage of lowering blood glucose level 48.63% at high dose (400 mg/kg) by comparing with control. While comparison with Control, administration of Sarbabhat doses of 50, 100, 200, 400 mg per kg led to, respectively, reductions in blood glucose levels by 16.1, 24.1, 38.2 and 48.63%. From the investigation it is observed that the MeOH extracts of Eichhornia crassipes (Mart) Solms. and Sarbabhat have hypoglycemic activity at different doses but further investigation is necessary.