Fiscus Exasperata Vahl: A Therapeutic Approach to Hypertension and Diabetes

Eyemonu, Colette (School: Doregos Private Academy)
Olufunminiyi, Oluseyi (School: Doregos Private Academy)

In Nigerian folk medicine, there are claims that the F. exasperata has antidiabetic and hypotensive effects. The orthodox drugs currently used in the management of these diseases are expensive, hence the upsurge in the studies into the use of phytochemicals in the management of the diseases. Forty eight, 6 weeks old, Zucker rats were randomly divided into six treatments. 500 g of the fresh leaves of F. exasperata was used to prepare the extract to give the required doses of 25, 50, 75 mg/kg body weight. Diabetes and hypertension were induced in all the treatments groups except A by a single intra-peritoneal injection 85 mg/kg body weight of Streptozotocin. F. exasperata extract 25, 50 and 75 mg/kg body weight, were given to the Treatment C, D, E, and F respectively 48 hours post Streptozotocin and done twice daily. The results showed that that all the animals treated with Streptozotocin became diabetic after 48 hours while Allylmercaptoca (50 mg/kg body weight) was given 24 hours post Streptozotocin to control the effect of Streptozotocin in treatment C . Administration of the extract at the dose of 75 mg/kg body weight significantly ($p<0.05$) reduced the blood glucose levels. Whereas the reduction in the fasting blood glucose of the animals administered 25 and 50 mg/kg body weight of the extract produced values though reduced, but not significant. Furthermore the extract reduced the blood pressure levels progressively, though only the group on 75 mg/kg body weight compared well with the control animals. The significant reduction of the elevated blood glucose and blood pressure indicate anti-diabetic and hypotensive activities of the extract, hence helpful to patients suffering from metabolic disorder that characterize these diseases.

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