

عنوان مقاله:

Study on the Effects of Chloroformic Extract of Securigera Securidaca on Serum Glucose Level and Liver Glycogen Content of Mice

محل انتشار:

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خلاصه مقاله:

Although *Securigera securidaca* (Ss) has long been known for its hypoglycemic effect, the precise nature of its effective component(s) and the involved mechanisms have not been investigated yet. This study investigated the effect of chloroformic extract of *securigera securidaca* seed on fasting serum glucose and glucose tolerance test, body weight, food consumption and liver glycogen content. Chloroformic and hydroalcoholic extracts of the seeds were prepared by the maceration method. Experiments performed on mice of both sexes with the weight range of 20-25 gr. Serum glucose concentration and liver glycogen content were measured by toluidine and trichloroacetic methods respectively. According to the results, hypoglycemic effect of chloroformic extract is dose-dependent and it appeared that 3 mg/kg dose of chloroformic extract has the maximum hypoglycemic effect. Administration of this dose reduced fasting serum glucose concentration from 103 ± 3 mg/dl to 69 ± 3 mg/dl and glucose tolerance test from 128 ± 1 mg/dl to 90 ± 2 mg/dl. Ten days administration of chloroformic extract also increased food consumption, body weight and glycogen content of the liver in case group comparing to the control group. In conclusion, the chloroformic extract of *securigera securidaca* seed contains component(s) that after oral administration can cause hypoglycemic effects through either inducing insulin-like effects or increasing insulin release. By indentifying and formulating of these components, this plant can be used more efficiently in the treatment of diabetic patients

کلمات کلیدی:

Glycogen, Serum glucose, *Securigera securidaca*, Mice, Liver

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