The effect of hydroalcoholic extract of *Nasturtium officinale* on blood glucose of diabetic mice

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Abstract:

Background and Purpose: Since diabetes is the most common endocrine disorder, and its growing trend has raised concerns in the healthcare system, the use of medicinal herbs may be effective in treating diabetes alone or in combination with chemical drugs. Therefore, the aim of this study was to investigate the effect of *Nasturtium officinal* extract on blood glucose in diabetic rats.

Methods and Materials: In this experimental study, 40 male mice with an average weight of 25-20 Grams after sustainability in standard animal house were divided randomly into 5 groups of 8 animals. Four drug groups by intraperitoneal injection of STZ (Streptozotocin) to the extent 60mg / kg and a non-diabetic control group were considered. Blood sugar was analyzed before and at 24, 72 hours and one week after injection of STZ and administration of hydroalcoholic Watercress extract. The first three groups received Watercress extract with three different doses (100, 300, 600 mg/kg). Data was analyzed using SPSS v.16 software. Paired t-test was used for statistical analysis.

Results: Blood sugar of groups treated with different doses of NF (Watercress) at 24 and 72 hours and a week after was significantly lower than the control group at the same time (p<0.05) so that blood sugar groups extract-treated diabetic, took 72 hours to 24 hours compared to 72 hours in one week showed a greater reduction (p<0.05) greater drop in blood glucose concentration 300 mg/kg respectively.

Conclusion: It seems that water extract can decrease the level of glucose in diabetic male rats. Human clinical trials are recommended.

Keywords: Diabetes, Watercress, Streptozotocin, Blood glucose, *Nasturtium officinal*

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