

(*Urtica dioica*)

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Study of the hypoglycemic activity of the hydroalcoholic extract of *Urtica dioica* in normal and diabetic rats

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OBJECTIVES: *Urtica dioica* (stinging nettle) has been used in Iranian traditional medicine in the treatment of diabetes. In this study the blood glucose lowering effect of *urtica dioica* leaves extract was investigated in wistar rats. **METHODS:** wistar rats were allocated in two groups of normal and diabetic (induced by streptozotocin; ip). Animals in each group were subdivided into two groups of 5 that received hydroalcoholic extract of *Urtica dioica* either interaperitoneally (ip) or orally. The blood glucose was determined by using a Glucometer. **RESULTS:** Oral and ip administration of hydroalcoholic extract of the plant showed a strong glucose lowering effect only on streptozotocin (STZ) induced diabetic rats. In contrast, the extract did not show hypoglycemic effect in normal rats. Even the extract in high doses produced a mild but a significant hyperglycemia in early hours after ip injection. Orally administrated extract in doses of 500 and 1000 mg/kg produced 20.8 and 23.7 percent reduction, respectively, in the blood glucose level 24 hours after diabetes induction. The decrease of STZ-induced hyperglycemia has reached to 33 and 44% of the control value 24 hours after the induction of diabetes with 25 and 50 mg/kg of ip injected extract. These effects were persistent during 48 hours. **CONCLUSION:** The results indicate that nettle has a significant hypoglycemic effect on STZ-induced diabetic rats a type II diabetic model.

Key words: *Urtica dioica*; hypoglycemia, diabetes, blood glucose.

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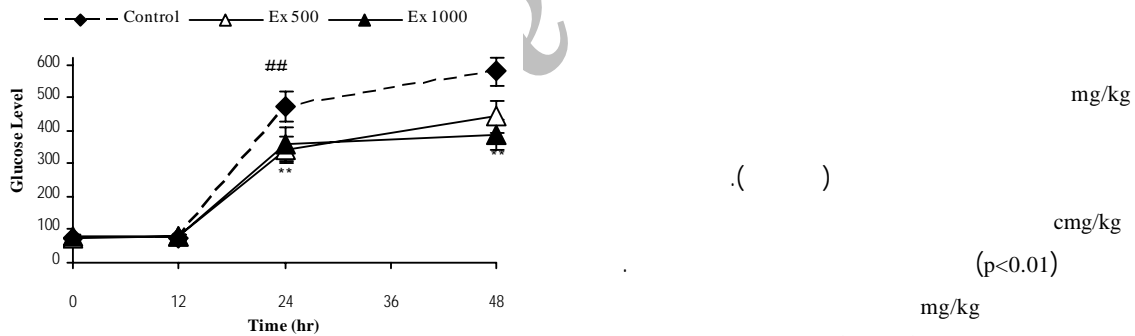
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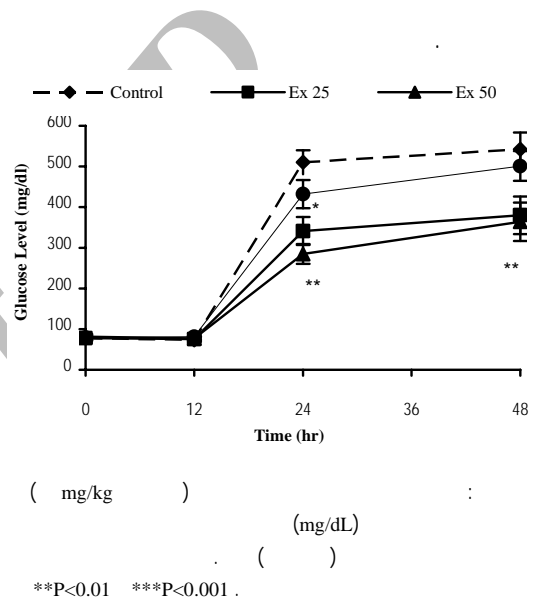
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