

## عنوان مقاله:

Anti-diabetic effects of aqueous extracts of three Iranian medicinal plants in type ۲ diabetic rats induced by high fructose diet

## محل انتشار:

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## خلاصه مقاله:

Objectives: Insulin resistance has been considered as the most important component of type ۲ diabetes mellitus (DM۲). Plants used in folk medicine to treat diabetes mellitus represent a viable alternative for the control of this disease. This study was aimed to examine the antidiabetic effects of three Iranian medicinal plants i.e. *Urtica dioica*, *Trigonella foenum-graecum* and *Fumaria officinalis* in an animal model of DM۲. Methods: Diabetes was induced in male Wistar rats (۶-۸ weeks old) by feeding ۲۱% fructose in drinking water for ۸ weeks. They were treated with aqueous extracts (۱۰%) of three medicinal plants (*Urtica dioica*, *Trigonella foenum-graecum* and *Fumaria officinalis*) for ۸ weeks. After diabetes induction and the last day of the experiment, body weight, fasting blood glucose, plasma insulin, urine volume and glucose were assayed. Results: Blood glucose, plasma insulin, urine glucose and urine volume were increased significantly after ۸ weeks of high fructose feeding ( $P<0.05$ ); the aqueous extracts of *Urtica dioica* reduced the blood and urine glucose and also the aqueous extracts of *Trigonell Foenum* diminished the insulin, weight and blood glucose in comparison with the high fructose-fed control group ( $P<0.05$ ). Conclusion: The obtained data in this study showed hypoglycemia effects of *Trigonell Foenum* and *Urtica dioica* extracts. Also our findings indicated that the hypoglycemia effect of *Trigonell Foenum* extract is in part by improvement of insulin resistance. These results can be extrapolated to humans and these extracts might be useful in the treatment of insulin resistance.

## کلمات کلیدی:

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