

Hypoglycemic and hypolipidemic effect of chronic oral administration of aerial part of *Marrubium vulgare* in diabetic Rats

Abstract

Background&Objective: *Marrubium vulgare* has preventing and antioxidant components. There are some evidence of hypoglycemic and hypolepidemic of this medicinal herb. This study was done to determine the hypoglycemic and the hypolipidemic activities of *Marrubium vulgare* in diabetic Rats.

Materials&Methods: In this experimental study, 40 male Wistar rats were divided into control, treated control, diabetic, and treated diabetic groups. For induction of diabetes, streptozotocin (STZ; 60 mg/Kg; i.p.) was used at a single dose. The treatment groups received oral administration of plant-mixed pelleted food (6.25%) for two months. Serum glucose, triglyceride and cholesterol concentrations. Were measured by spectrophotometry technique.

Results: Serum glucose level in diabetic group increases 4 and 8 weeks after the experiment as compared to data one week before the study began ($P<0.05$). *Marrubium vulgare* treatment of diabetic rats did not any significant effect. In addition, triglyceride level in diabetic group increased 8 weeks after the experiment in comparison with related data one week before the study ($P<0.05$) and there was a significant lower level of triglyceride in *Marrubium vulgare*-treated diabetic rats ($p<0.05$). Furthermore, a similar significant reduction was obtained for treated-diabetic group as compared to diabetic group regarding serum cholesterol level ($p<0.05$).

Conclusion: This study showed that oral administration of *Marrubium vulgare* in long-term could significantly reduce serum triglyceride and cholesterol levels without any effect on serum glucose in diabetic rats.

Key Words: *Marrubium vulgare*- Hypoglycemic-cholesterol - Hypolipidemic- Diabetes mellitus-Streptozotocin- Rat

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