

Effect of Rosmarinic acid on sexual behavior and Hormones levels in Diabetic rats.

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Objective : Rosmarinic acid from the plants quenched superoxide radicals from xanthine oxidase and inhibited cyclooxygenase I and II enzymes. Antioxidants have essential effect on diabetes. Enhanced oxidative stress and changes in antioxidant capacity are considered to play an important role in the pathogenesis of chronic diabetes mellitus.

Methods : Wistar male and female rats (n=40) were allocated into three groups, control group (n=10) and Rosmarinic acid (Ro) group that received 5mg/rat (gavage)(n=10), and Diabetic group that received 55mg/kg (IP) streptozotocin (STZ) (n=20) which was subdivided to two groups of 10; STZ group and treatment group. Treatment group received 55mg/kg (IP) STZ plus 5mg/rat Ro, daily for 4 weeks, respectively; however, the control group just received an equal volume of distilled water daily (gavage). Diabetes was induced by a single (IP) injection of streptozotocin (55mg/kg). Animals were kept in standard condition. In 28 days after inducing diabetic 5cc blood were collected for testosterone levels from whole groups' analysis.

Results: Level of sexual behavior and testosterone significantly increased in groups that received Ro, in comparison to whole groups ($P < 0.05$).

Conclusion: Since in our study 5mg/rat of Ro, have significantly Preventive effect on diabetic disorder in libido, so it seems that using it can be effective for treatment in Diabetic Rat.

Keywords: Diabetic, Rosmarinic acid, Streptozotocin, Sexual behavior.