Original Paper

Effect of hydroalcoholic extract of Cinnamon zeylanicum (Bark) on mice pituitary-testis axis

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Abstract

Background and Objective: The application of herbal extract are used as substitution to either drug or complementary medicine. Cinnamomum zeylanicum is one of the important herb which is used for various diseases. This study was done to determine the effects of Cinnamomum zeylanicum (Bark) hydroalcoholic extract on the level of hormones responsible for reproduction in male mice.

Materials and Methods: In this experimental study, 48 male adult mice divided in six groups, hydroalcoholic extract of Cinnamon zeylanicum was injected intraperitonealy in different dose (50, 100, 200 and 400 mg/kg/every other day) for 20 days in groups 1-4. Normal saline was injected in only one group as placebo group and the other group was not given any substance and it was considered as a control group. All serum hormones level including FSH, LH and testosterone were measured by Radioimmunoassay (RIA) technique.

Results: The concentration of FSH, LH increased following the injected dose of Cinnamon zeylanicum and the most increasing of FSH and LH concentration was in animals which receive 200, 400 mg/kg/every other day of Cinnamomum zeylanicum hydroalcoholic extract. The level of serum testosterone significantly increased in dose of 50, 100 mg/kg/every other day in comparison with control group, too ($P<0.05$).

Conclusion: This study showed that hydroalcoholic extract of Cinnamon zeylanicum elevates the pituitary-gonadal axis hormones.

Keywords: Cinnamomum zeylanicum, Male reproductive system, FSH, LH, Testosterone, Mice

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