

The protective effects of the medicinal plant *Gingko biloba* on adrenal gland function in methamphetamine receiving rats

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Background

Studies show that ginkgo extract has improving effects on several body system including endocrine glands. The aim of this study was to investigate the effects of ginkgo leaf extract on serum levels of ACTH and cortisol in methamphetamine receiving male rats.

Methods

In this laboratory experimental study, male Wistar rats were randomly divided to control group, and normal saline, met-amphetamine (4mg/kg) and “met-amphetamine (4mg/kg)+ ginkgo leaf extract (50 mg/kg)” receiving rats. The injections were carried out once a week. After 6 weeks, blood samples were collected using cardiac puncture method and following serum collection, the levels of ACTH and cortisol were measured by radioimmunoassay method. The data were statically analyzed using ANOVA.

Results

The results of the present study show that there was no significant difference in serum levels of ACTH and cortisol in rats receiving normal saline compared with control animals. However, serum levels of ACTH and cortisol significantly increased in rats receiving met-amphetamine compared to control group.

Conclusion

The findings suggest that ginkgo extract has protective effects against increased adrenal gland function in methamphetamine receiving rats.