The effect of aqueous extract of Elaeagnus Angustifolia on infarct tissue volume and neurologic deficits in rat stroke model

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Abstract

Background & Aim: Stroke is the most common neurological disease and the first cause of disability in the world. Since Elaeagnus Angustifolia contains antioxidant compounds and has been used as a treatment for many diseases, the effect of aqueous extract of Elaeagnus Angustifolia on infarct tissue volume and neurologic deficits in rat stroke model was investigated.

Methods: In this experimental study, 35 male Wistar rats were selected and divided into 5 groups of 7 members (Control, Sham, and 3 experimental groups). The studied groups received three different doses of aqueous extract of Elaeagnus Angustifolia (100, 200 and 400 mg/kg) through gavage feeding for 30 days. Control group received distilled water and sham group did not receive any treatment and ischemia induction. Data was analyzed through SPSS 18 version software.

Results: Compared to the control group, the mean of total volume of infarction in two doses of 200 and 400 mg/kg had a significant difference ($p<0.05$) whereas, there was no significant difference in 100 mg/kg dose. Also, the mean of total volume of infarction was not significantly difference between control and shem groups.

Conclusion: It seems that, due to the reduction of infarct tissue volume and neurological deficits, Elaeagnus Angustifolia can have a protective effect on damages caused by stroke.

Keywords: Elaeagnus Angustifolia, infract tissue volume, Neurological deficit, rat

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