

عنوان مقاله:

Anticonvulsant Effect of Hydroalcoholic Extract of Scrophularia Striata Boiss. on Pentylentetrazol-Induced Seizure in Mice

محل انتشار:

مجله دانشگاه علوم پزشکی کرمان، دوره 21، شماره 3 (سال: 1393)

تعداد صفحات اصل مقاله: 12

نویسندگان:

B Alimohammadi - *Nursing Student, School of Nursing and Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran*

H Azhdari-Zarmehri - *Assistant Professor of Physiology, Department of Physiology, School of Medicine and Cellular and Molecular Research Center, Qazvin University of Medical Sciences, Qazvin, Iran*

M Sofiabadi - *Associate Professor of Physiology, Department of Physiology, School of Medicine, Qazvin University of Medical Sciences, Qazvin, Iran*

A.R Moslem - *General Practitioner, Healthy Aging Research Center, Sabzevar University of Medical Sciences, Sabzevar, Iran*

خلاصه مقاله:

Background & Aims: Epilepsy is a central nervous system disorder that appears as sudden convulsions, and transient, repetitive and unpredictable movement, with sensory-motor and autonomic sources. Nowadays, patients with epilepsy use various types of chemical drugs which turn out side effects and cause drug resistance in long-term use. Ease of using herbal plants and their public acceptance have provided them appropriate for pharmacological purposes. *Scrophularia striata* Boiss., plant grows in areas of Ilam in Iran, has been experimentally used in the treatment of various diseases. In this experiment, the effect of hydroalcoholic extract of this plant was studied on pentylentetrazol-induced seizures. **Methods:** 40 male mice (25-30 g) were randomly selected and divided into five groups of 8, including a control group (receiving saline and pentylentetrazol) and 4 treatment groups (receiving the extract doses of 150, 300, 600, 900 mg/kg). 30 minutes after intraperitoneal administration of saline and extract, pentylentetrazol (80 mg/kg) was injected. The mice were immediately transferred to a special cage and convulsive behaviors were recorded by a camera during the 20 minutes. Then, the different phases of seizure were evaluated. **Results:** Extract injection in dose of 150 mg/kg had no significant effect on onset time of different levels of seizure. But, extract injection in doses of 300 and 600 and 900 mg/kg delayed the onset time of tonic, clonic and tonic-clonic seizures. The extract administration in all treatment doses also reduced duration time of tonic and tonic-clonic seizures and decreased the numbers of imbalances and fallings in different seizure phases. As well, the extract decreased mortality to zero. **Conclusion:** Our study indicated that the hydro-alcoholic extract of *Scrophularia striata* Boiss. has an appropriate anticonvulsant effect and it seems that the future studies are necessary to separate its ingredients and understand its mechanism of action.

کلمات کلیدی:

Scrophularia striata Boiss, Anticonvulsant effect, Pentylentetrazol, Seizure

