

عنوان مقاله:

The Effects of Ellagic Acid on Hippocampal Cell Damage in Pentylentetrazole Induced Kindling Seizure Model

محل انتشار:

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خلاصه مقاله:

Introduction: Epilepsy is a chronic neurological disease that is characterized by recurrent, spontaneous brain seizures. The aim of this study was to evaluate the effect of ellagic acid (EA) on hippocampal cell damage in pentylentetrazole (PTZ) induced kindling model. **Methods:** In this experimental study, 50 male Wistar rats were randomly divided into 5 groups (n= 10): control, PTZ (40 mg/kg, ip), PTZ+EA12, PTZ+EA25 and PTZ+EA50 (which received 12.5, 25 & 50 mg/kg, respectively) groups. After investigation of seizure delay in five consecutive days, the brains of rat's skulls were removed and histopathological evaluation were performed. Comparison between different groups was assessed by one way ANOVA followed by Tukey's post hoc test ($p < 0.05$). **Results:** Intraperitoneally injection of PTZ induced kindling seizure in animal model ($p < 0.001$). The data showed the seizure delay following the administration of EA increased ($p < 0.001$). In addition, after administration of EA the density of hippocampal cells increased in experimental groups ($p < 0.001$). **Conclusion:** The results of this study showed that EA decreases the severity of seizure in kindling seizures. Also, EA increased the neuronal density following the administration of PTZ. Therefore, EA possesses neuroprotective effects that enhance the hippocampal damages in animals and also perhaps in patients suffering from .seizure

کلمات کلیدی:

Ellagic Acid, Pentylentetrazole, Hippocampus, Rat

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