

P-399**The effect of hydro-alcoholic extract of fumaria officinalis leaf on pain and seizure by pentylentetrazole-induced mice****Fatemeh Taleahmad^{1*}, Fatemeh Nabi¹, Mahdi Alizadeh¹, Fariba Ansari¹, Zahra Kiasalari², Mohsen Khalili²**

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Background and Objective: There are many reports for mutual mechanisms for seizure and pain alleviation. Also with respect to the herbal medicine recommendation in new medicine, in this study we used the extract of an important candidate fumaria officinal for relief of pain and seizure in mice.

Materials and Methods: In two series of experiments 5 groups i.e control, positive control and three doses of extract (200,600 and 800 mg/kg) were conducted to pain and seizure analysis. For assessment the pain formalin(%2.5,50µl) was injected to hind paw, and the licking duration and frequency were measured for a period of 45 min. However, we used PTZ(100 mg/kg) for induction of the seizure. The initiation time (s) for myoclonus, clonus and the tonus were considered for seizure command.

Result: Our results indicated that the extract in three doses (200,600 and 800 mg/kg) can reduced the formalin acute and chronic pain. Also the start time for seizure behaviors i.e myoclonus, clonus and seizures could elevated markedly in lower doses of the extract (200 and 600 mg/kg)

Conclusion: In addition, treatment of the mice with hydro-alcoholic extract of fumaria officinalis leaf could significantly reduce the pain and increase the initiation time of the seizure.

Keywords: Pain, Seizure, Fumaria officinalis leaf, Mice

P-400**The effect of extraction of Cyperus rotundus rhizome on elevated platform stress-induced memory retrieval impairment in adult male mice****Taheri Darush, Khajehpour Lotfollah, Seyyednejad seyed Mansour**

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Background and Objective: Stressful conditions have various biological effects on humans and animals, such as memory deficits. Cyperus rotundus rhizome has some biological effects, such as memory improvement. In this study, we evaluated the effect of extraction of Cyperus rotundus rhizome on impairment of memory retrieval induced by elevated platform stress.

Materials and Methods: In this experimental research, 42 adult male mice (6 groups) were used. Memory was assessed by step through instrument, as passive avoidance model, in two phases (training in first day and testing in second day) and Step through latencies was recorded for retrieval evaluation. The animal received extract of Cyperus rotundus rhizome (20, 50mg/kg) by oral gavage for 7 days, before retrieval testing day. Animals were placed on the platform for 15 minutes, to induction of stress, before the test phase.

Results: The results of this study shows that stress (15 min., pretest.), reduced memory retrieval. The oral administration of rhizomes extract of Cyperus rotundus (20, 50 mg/kg, daily), seven days before training, reversed the effect of stress on retrieval. However these doses of Cyperus rotundus alone had no effect on memory retrieval in unstressed animal.

Conclusion: According to the findings of this study, it seems that the rhizomes extract of Cyperus rotundus protects the memory retrieval against the Negative effects of pretest stress induced by elevated platform.

Key words: Cyperus rotundus, Elevated platform, memory retrieval, stress