



Evaluation of the anxiolytic effect of rosemary in mice

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Abstract: Nowadays the occurrence of anxiety disorders are elevated resultant in an increase in the rate of morbidity. Commonly the most used drugs for anxiety disorders treatment are benzodiazepines but, their side effects limits their use. Traditionally a lot of herbs were used to treat many diseases and disorders for instance sleep disorders. The aims of this study to investigate the anxiolytic activity of *Rosmarinus officinalis* extract in mice. Two doses of *Rosmarinus officinalis* leaves watery extract (15 and 30 mg/kg) were compared to diazepam (1mg/kg) as a standard anxiolytic agent. Open field test was used to detect any behavioral changes due to stress. Results revealed that the numbers of both crossed squares and rearing were extremely significantly ($p < 0.001$) increased in both diazepam and *Rosmarinus officinalis* (15 mg/kg) treated groups, whereas the numbers of crossed squares and rearing in *Rosmarinus officinalis* (30 mg/kg) treated group was increased highly significantly ($p < 0.01$) and insignificantly ($p > 0.05$) respectively. Also the period of time spend in the central squares was increased extremely significantly ($p < 0.001$) and highly significantly ($p < 0.01$) in diazepam and *Rosmarinus officinalis* (30 mg/kg) treated groups respectively, whereas in *Rosmarinus officinalis* (15 mg/kg) treated group the increase was insignificant ($p > 0.05$). The number of grooming was extremely significantly ($p < 0.001$) decreased in diazepam and *Rosmarinus officinalis* (15 and 30 mg/kg) treated groups. So, Watery extract of *Rosmarinus officinalis* leaves have an anxiolytic like effect which more with the dose of 15 mg/kg.

Keywords: anxiolytic effect, *Rosmarinus Officinalis*, diazepam, open field test, mice.