عنوان مقاله:
The Effect of Aqueous Extract of Boswellia on Spatial Learning and Memory in Adult Male Rats

محل انتشار:
مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان, دوره 22, شماره 95 (سال: 1393)

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خلاصه مقاله:
Background and Objective: Learning is the acquisition of information about the world and memory is a mechanism to encode, store and retrieve the learned information. Weak memory and learning disorders are the most common cognitive problems. In the present study, the pharmacological effects of aqueous extract of Boswellia on learning and spatial memory in male rats was investigated using the Morris water maze (MWM) test. Materials and Methods: In this experimental study, ۲۱ male rats were divided into ۳ groups including a control group (distilled water) and two groups treated with aqueous extract of Boswellia (۵۰ and ۱۰۰ mg/kg) that received the treatment for ۴ weeks. To evaluate learning ability of animals, Morris Water Maze was used. Results: In the first and the last day of training, all groups showed significant reduction in escape latency (P<۰.۰۰۰۱) and traveled distance (P<۰.۰۰۰۱). In the sixth day of training, both treatment groups showed significant reduction in escape latency (P<۰.۰۵) and traveled distance (P<۰.۰۵) in comparison with the control group. Conclusion: The results suggest that intake of Boswellia facilitates the learning and spatial memory formation in rats via Morris water maze test method. References ۱- Sharifzadeh M, Sharifzadeh K, Naghdi N, Ghahremani MH, Roghani A. Posttraining intrahippocampal infusion of a protein kinase AII inhibitor impairs spatial memory retention in rats. J Neurosci Res. ۲۰۰۵ ۷۹(۳): ۳۹۲-۴۰۰ ۲- Francis PT, Palmer AM, Snape M, Wilcock GK. The cholinergic hypothesis of Alzheimer's disease: a review of progress. J Neurol Neurosurg Psychiatry. ۱۹۹۹ ۶۶(۲): ۱۳۷-۴۷. ۳- Abdel-Tawab M WO, Schubert-Zsilavecz M. Boswellia serrata: an overall assessment of in vitro, preclinical, pharmacokinetic and clinical data. Clin Pharmacokinet. ۲۰۱۱ ۵۰(۶): ۳۴۹-۶۹. ۴- Hussain H, Al-Harrasi A, Al-Rawahi A, Hussain J. Chemistry and biology of essential oils of genus boswellia. Evid Based Complement Alternat Med. ۲۰۱۳:۱۴۰۵۰۹. doi: ۱۰.۱۱۵۵/ ۲۰۱۳/ ۱۴۰۵۰۹. ۵- Moussaieff A, Mechoulam R. Boswellia resin: from religious ceremonies to medical uses a review of in-vitro, in-vivo and clinical trials. J Pharm Pharmacol. ۲۰۰۹ ۶۱(۱۰): ۱۲۸۱-۹۳. ۶- Thulin M, Warfa A. The frankincense trees (Boswellia spp., Burseraceae) of northern Somalia and southern Arabia. Kew Bulletin. ۱۹۸۷: ۴۸۷-۵۰۰. ۷- Sharma A, Mann A, Gajbhiye V, Kharya M. Phytochemical profile of Boswellia serrata: An overview. Pharmacog Rev. ۲۰۰۷ ۱(۱): ۱۳۷. ۸- Poeckel D, Werz O. Boswellic acids: biological actions and molecular ... targets. Curr Med Chem. ۲۰۰۶ ۱۳(۲۸): ۳۳۵۹-۶۹. ۹- Kimmatkar N, Th

کلمات کلیدی:
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