

## عنوان مقاله:

Effects of Peripheral and Intra-hippocampal Administration of Sodium Salicylate on Spatial Learning and Memory of Rats

## محل انتشار:

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## خلاصه مقاله:

Objective(s) Cyclooxygenases (COXs) are known to play some roles in physiological mechanisms related to learning and memory. Since sodium salicylate is an inhibitor of COX, we have evaluated the effect of peripheral and intra-hippocampal administration of sodium salicylate on spatial learning and memory in male rats. Materials and Methods Male rats were studied in two groups; the first group received different intraperitoneal (i.p.) sodium salicylate doses (0, 200, 300, and 400 mg/kg) and the second group received intra-hippocampal doses of the drug (0, 30, 50, and 100 µg/0.5 µl/side). The spatial performance of rats was tested using Morris water maze (MWM) task. The spatial learning and memory parameters were analyzed using ANOVA. Results Peripheral and intra-hippocampal administration of sodium salicylate did not lead to a statistically significant change in the mean time (escape latency), and also the distance traveled for finding the hidden platform during the training days, compared with the control group. But at the probe trial, the percentage of time spent in the target quadrant by rats which received the highest doses of drug significantly increased. Conclusion We found that both peripheral and intra-hippocampal administration of sodium salicylate facilitates the process of spatial memory consolidation in the MWM.

## کلمات کلیدی:

Cyclooxygenase, Rat, Sodium salicylate, Spatial Memory

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