

عنوان مقاله:

The Effect of Butter Oil on Avoidance Memory in Normal and Diabetic Rats

محل انتشار:

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تعداد صفحات اصل مقاله: 7

نویسندگان:

Khadije Zare - Department of Basic Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

Seyed Reza Fatemi Tabatabaei - Department of Basic Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

Ali Shahriari - Department of Basic Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

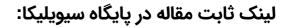
Ramezan Ali Jafari - Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

خلاصه مقاله:

Objective(s) Since diabetes mellitus is accompanied by cognitive impairment in diabetic patient and animal models and since lipids play important roles in neuronal membrane composition, structure and function; we intended to evaluate the effect of dietary butter oil on passive avoidance memory of streptoztosin (STZ)-induced diabetic rats in this study. Materials and Methods Thirty six adult male rats were randomly allocated to four equal groups: normal (N) and diabetic control (D) groups[R1] with free access to regular rat diet; but the diet of normal butter oil (NB) and diabetic butter oil (DB) groups was supplemented with $1\circ\%$ butter oil. Diabetes in D and DB groups was induced by intravenous (i.v.) injection of $\diamond \circ$ mg/kg.bw of STZ. Passive avoidance memory and cholesterol of brain and hippocampal tissues has been measured six weeks after diabetes confirmation. Results Diabetes, especially in diabetic butter oil group decreased the abilities of learning and memory. The level of cholesterol in hippocampus was higher in NB (P< $\circ.\circ$) and DB (P< $\circ.\circ$) groups. Conclusion We suggest consumption of butter oil may worsen cognitive impairment of diabetic animal. This may be related to the higher elevation of cholesterol in the hippocampus .of diabetic animals

كلمات كليدى:

Avoidance memory, Butter oil, Cholesterol, Diabetes, Hippocampus



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