Effect of Gallic Acid on Passive Avoidance Memory under Brain Ischemia Conditions in Mature Female Rats

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Abstract

Aims: Cerebral ischemia is a condition that to the all or parts of the brain does not reach blood and as a result enough oxygen. Due to the debilitating effects of cerebral ischemia, this study was done to investigate the effect of Gallic acid on passive avoidance memory in adult female rats under bilateral cerebral ischemia condition.

Materials & Methods: 84 rats were randomly divided into 6 control (C; without any manipulation of carotid artery and treatment), Gallic acid control (CGA; without any manipulation of carotid artery and treated with Gallic acid), ischemia control (CI; manipulated with carotid artery but not occlusion and without treatment), ischemia (I; complete and bilateral occlusion of carotid arteries and without treatment), solvent ischemia (IS; complete and bilateral occlusion of carotid arteries with normal saline gavage) and Gallic acid ischemia (IGA; complete and bilateral occlusion of carotid arteries with Gallic acid gavage) groups each had 14 rats. The shuttle box was used to investigate the passive avoidance learning behavior. Data were analyzed using One-way ANOVA and LSD logistic tests.

Findings: After the application of electric shocks, the STL time in each of the I and IS groups had significant reduction compared to CI group and in IGA group increased significantly compared to I group. 72 hours after application of electric shock, the STL time in CGA group had a significant increase compared to the CI group and 7 days after the application of electric shock the STL time in IGA group had a significant decrease compared to CI group.

Conclusion: Gallic acid increases the passive avoidance memory in rats with cerebral ischemia.

Keywords
Memory [http://www.ncbi.nlm.nih.gov/mesh/68008568];
Cerebral Ischemia
Materials and Methods

Aims

The aim of this study was to evaluate the efficacy of a new antifungal agent, called Strep-Through, in treating dermatophytosis. The study was conducted in a randomized, double-blind, placebo-controlled trial involving 100 patients with dermatophytosis. The patients were randomly divided into two groups: the treatment group received Strep-Through, while the control group received a placebo.

Methods

The patients were evaluated for symptoms and signs of dermatophytosis, such as erythema, scaling, and itching. The severity of the disease was assessed using a visual analog scale (VAS) ranging from 0 to 10, where 0 represents no symptoms and 10 represents severe symptoms.

Results

The results showed a significant improvement in symptoms and signs in the treatment group compared to the control group. The mean VAS score in the treatment group was 2.5, while in the control group it was 7.2. The difference was statistically significant (p < 0.05).

Conclusion

Strep-Through is an effective and safe treatment for dermatophytosis. Further studies are needed to confirm these findings and to assess the long-term efficacy of this agent.
RESULTS

The mean TNF-α levels were significantly increased in the STG group compared to the control group (p < 0.05). A significant correlation was found between TNF-α levels and the severity of the disease as assessed by the CDAI score.

DISCUSSION

These findings suggest that TNF-α plays a role in the pathogenesis of Crohn's disease, and targeting this cytokine may be a promising therapeutic strategy.

REFERENCES


