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Poster Presentation

Triazine Improved Hippocampal Injuries in Animal Model of Alzheimer's Disease

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Abstract

Triazine derivatives are small synthetic peptides with no apparent toxicity and high target specificity in central nervous system. Hippocampal tissue is the most vulnerable area in the Alzheimer's disease (AD). The aim of this study was to investigate the neuroprotective effect of triazine in AD induced by intra-cerebro-ventricular (i.c.v.) administration of streptozotocine (STZ). Male Wistar, weighting 200-250 grams were bilaterally implanted with chronic cannula in the Lateral ventricle. Animals were divided into seven groups; Control group: animals received no surgery and treatment. Saline group: animals received normal saline after recovery. Sham group: animals received 10% DMSO after recovery. STZ group (Alzheimer's model): animals received STZ in four and six days after recovery. T5, T10 and T15 groups: animals were treated with triazine derivative, C₁₆H₁₂Cl₂N₃S, at doses of 5, 10 and 15 μM, respectively. All drugs were injected i.c.v. To assess the neuroprotective effect of triazine, we measured the hippocampal CA1 pyramidal layer thickness in all tested groups. The CA1 pyramidal layer thicknesses in STZ group reduced significantly compared to control group. Triazine increased the CA1 pyramidal layer thickness in T15 group compared to STZ group. Our findings suggest that triazine may have protective effect on the hippocampus.

Keywords: Alzheimer's Disease, Triazine, Streptozotocine.

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