Evaluation of Anti-Alzheimer's Potential of Eplerinone, an Aldosterone Antagonist, in Mice

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Alzheimer's disease (AD) is the neurodegenerative disorder characterized by impairment of higher intellectual dysfunctions associated with changes in the cognitive, behavioral and social activities. The current study was designed to evaluate the potential of aldosterone antagonist such as eplerinone (40, 80 and 160 mg/Kg) in the treatment of Alzheimer's in albino mice of either sex (n = 60). Experimental mice were sub –categorized into 6 groups, each group having 10 mice. Group I – normal control, Group II- diseased control, Group III- standard and Group IV-VI designated as treatment group. Anti-Alzheimer's effect was assessed by using the behavioral models such as passive avoidance, elevated plus maze, Morris water maze, open field and balance beam. Memory was impaired by administration of streptozotocin (STZ) through intracerebroventricular route on 1st and 3rd day of study. Various endogenous antioxidants such as SOD, GSH, nitrite, MDA, CAT and protein contents were identified in brain tissues of mice to assess the oxidative index. Different neurotransmitter levels such as nor-epinephrine, dopamine, serotonin and acetylcholine were also analyzed in brain tissues of mice. Results showed that eplerinone was found to be effective in the treatment of Alzheimer's. It may be concluded from the research work that eplerinone can be effective for cognitive improvement which proposes its therapeutic effect in many neurodegenerative disorders like Alzheimer's.

Biography

Sundas Hira is workig as a lecturer at Riphah Institute of Pharmaceutical Sciences, Riphah Internatioal University. She is contributing dedicatedly her best part in researh and publications. She has her expertise in assessing the effcetiveness of natural and other synthetic substaances in the treatment of neurodegenerative diseases. Her research work based on "evaluation of anti-alzhiemer's potential of eplerinone, an aldosterone antagonist, in mice " explores the new pathway for preventing many neurodegerative diseases associated with cognitive deficit.

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