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Glucosylceramide ameliorated the memory decline in aged mice

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The function and the role of glucosylceramide have not been well studied in the central nervous system. This study was aimed to investigate the possible roles of glucosylceramide in memory function in aged mice. Glucosylceramide (50 mg/ kg, p.o.) showed memory enhancing activity after 3-month treatment in the aged mice (C56BL/6, 18-20 month-old) through Y-maze, novel objective test and Morris water maze test. Long-term treatment of glucosylceramide decreased the expression of iNOS and COX-2 in the brain of aged mice. The LPS-induced mRNA level of iNOS, COX-2, IL-1 $\beta\beta$ and TNF- $\alpha\alpha$ was reduced by the acute treatment with glucosylceramide in adult mice. These results suggest that glucosylceramide plays an important role in anti-inflammatory and memory enhancement, and it could be a potential new therapeutic agent for the treatment of neurodegenerative diseases such as Alzheimer's disease.

Biography

Seikwan Oh has completed his PhD in 1995 from School of Medicine, University of Mississippi, USA and Postdoctoral studies from School of Medicine, University of Mississippi. He is the Professor of School of Medicine, Ewha Womans University, Republic of Korea. He has published more than 120 papers in reputed journals.

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