

10th World Congress on

ALZHEIMER'S DISEASE & DEMENTIA

May 30-31, 2018 Osaka, Japan

Orthosiphon stamineus improves cognitive functions after ICV streptozotocin insult in alzheimer's disease model

Thaarvena Retinasamy

Monash University Malaysia Campus, Malaysia

Alzheimer's disease is a chronic neurodegenerative disease that causes cognitive impairment like learning and memory. *Orthosiphon stamineus* (OS) is a medicinal herb that has been reported to exert various pharmacological activities. The objective of this study was to evaluate whether this Malaysian plant extract can reverse Streptozotocin (STZ) induced cognitive dysfunction in experimental animals. Rats were subjected to Intra Cerebro Ventricular (ICV) injections of STZ (3 mg/kg) bilaterally. The STZ-injected rats received oral treatment of OS (50,100 and 200 mg/kg) one day after the surgery, for 7 days before being subjected to behavioral analysis. The learning and memory performance was assessed using passive avoidance and elevated plus maze tests. It was found that the OS administration significantly attenuated learning and memory impairment induced by STZ-injection. The hippocampal tissues were extracted for gene expression analysis, known to be modulated in AD condition. All the three doses demonstrated effectiveness against Scopolamine-induced cognitive impairment when compared to the negative control group. Therefore, these results demonstrate the effectiveness of OS in averting cognitive deficits could serve as a potential therapeutic option for the treatment of neurodegenerative diseases like AD.

thaarvena@gmail.com