

## **CAFFEINE PREVENTS SCOPOLAMINE-INDUCED MEMORY IMPAIRMENT IN MICE.**

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Caffeine is one of the most psychostimulants consumed in around the world. Recently, caffeine consume was associated with a decrease on the incidence of Alzheimer Disease (AD). Cholinergic system is one of the main neurotransmitters systems affected in AD. In the present study, we tried to verify whether acute administration of caffeine (10 mg/kg, i.p) four days before a single dose of scopolamine (1mg/kg, i.p) could prevent the impairment on inhibitory avoidance and novel object recognition tasks in mice. Our results showed that caffeine prevented scopolamine-induced impairment in the inhibitory avoidance task, when tested 24 h after a single administration of scopolamine. However, caffeine seems to be not able to prevent the impairment of novel object recognition task by scopolamine. Our results suggest that the beneficial effect of caffeine in preventing scopolamine-induced cognitive impairment depended on the task studied, being particularly effective for an aversive task. Finally, more studies have been performed to investigate the effects of caffeine on short-term memory in mice administered with scopolamine.