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Improving effect of fermented papaya preparation on scopolamine-induced amnesia in mice.

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Fermented papaya preparation (PS-501, SAIDO Co., Fukuoka, Japan) is a natural functional health food produced by yeast fermentation of *Carica Papaya* Linn. PS-501 has been demonstrated to possess strong antioxidant action in biochemical study. In particular, some active components of PS-501 including free radical scavengers pass the blood brain barrier, suggesting that PS-501 is one of the prophylactic food for neurological diseases associated with free radicals. The step-down-type passive avoidance learning and spontaneous alternation performance were observed in the present study to investigate the effect of PS-501 on the scopolamine-induced amnesia in mice. PS-501 (p.o.) was administered to mice through water bottle in home cage for one month. PS-501 (0.1 and 0.5 g/kg) significantly inhibited the scopolamine (1 mg/kg, s.c.)-induced shortening of step-down latency of passive avoidance learning. PS-501 (0.5 g/kg) also significantly inhibited the scopolamine (1 mg/kg)-induced decrease in percent alternation of spontaneous alternation performance. These results suggest that PS-501 significantly improves the scopolamine-induced amnesia.