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Research Article

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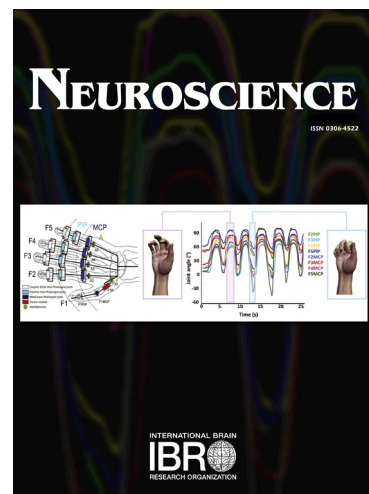
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**Anti-oxidative and anti-apoptotic effects of acupuncture: Role of Thioredoxin-1  
in the hippocampus of vascular dementia rats**

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**Abstract**

Emerging evidence suggests that acupuncture treatment has anti-oxidative effects that effects cognitive impairment in vascular dementia (VD) rats. In the present study, we aimed to investigate whether thioredoxin-1 (Trx-1)/thioredoxin reductase-1 (TrxR-1) were involved in the beneficial effects of acupuncture. After 2-weeks of acupuncture treatment, Morris water maze (MWM), dihydroethidium (DHE) staining, Nissl staining and TdT-mediated dUTP nick end labeling (TUNEL) staining were used to assess the effects of acupuncture on cognitive function and hippocampal neuronal injury in two-vessel occlusion (2VO) model. The protein and mRNA levels of Trx-1 and TrxR-1, the activity of TrxR-1 as well as the phosphorylation of the

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