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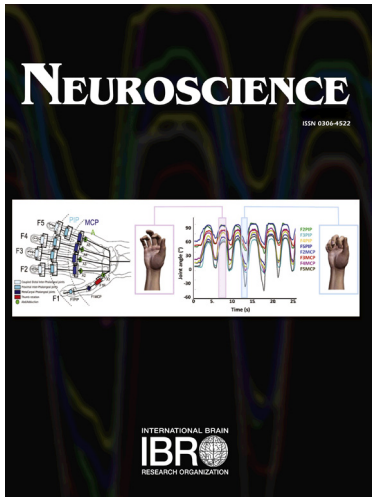

Research Article

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

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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