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电针对血管性痴呆大鼠海马脑源性神经营养因子mRNA表达及学习记忆的影响

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摘要：

摘要目的：通过观察电针后血管性痴呆（VD）大鼠不同时相海马脑源性神经营养因子（BDNF） mRNA表达的变化规律，探讨电针改善VD大鼠学习记忆的可能机制。方法：通过结扎大鼠双侧颈总动脉，制成VD模型，分为1周组，2周组，4周组和6周组，其中每一组又分为电针组和模型组，用RT-PCR法检测各组BDNF mRNA表达的变化规律，观察电针的影响，并通过Morris水迷宫来观察各组神经行为学的改变。结果：经统计分析发现同时相电针组与模型组相比，电针组海马BDNF mRNA随着时间的延长表达升高（P＜0.05），而且与模型组相比，电针组大鼠的学习记忆能力比模型组好（P＜0.01,P＜0.05）。结论：电针能够促进海马BDNF mRNA的表达，可能是针灸治疗治疗VD，改善VD大鼠症状的可能机制之一。

关键词：血管性痴呆 电针 脑源性神经营养因子 学习记忆

Effects of electro-acupuncture on the expression of brain derived neurotrophic factor mRNA and learning and memory in rats with vascular dementia

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Fund Project:

Abstract:

Abstract Objective: To observe the pattern of expression of brain derived neurotrophic factor(BDNF) mRNA in hippocampus in different time phase after electro-acupuncture(EA) treatment in rats with vascular dementia（VD） and to explore the possible mechanism of EA improving the abilities of learning and memory in VD rats. Method: The rats model of VD induced by 2-VO were randomly divided into 1week and, 2, 4, 6weeks model group, each group was subdivided into model group and EA group. The changing pattern of BDNF mRNA expression in each group were tested by RT-PCR, and the changes of learning and memory abilities of VD rats in each group were observed by Morris water maze. Result: Compared with model group in the same time phase, the expressions of BDNF mRNA of EA groups improved and increased with the time prolonging compare with model group（P＜0.05）, the learning and memory abilities of EA group were better than that of model group（P＜0.01 or P＜0.05）. Conclusion: EA can prompt the expression of BDNF mRNA in hippocompous, this may be one of the mechanisms of EA improving the symtoms of VD.

Keywords:vascular dementia electro-acupuncture brain-derived neurothrophic factor learning and memory

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