by acupuncture stimulation are important acupuncture-induced benefits in this animal model of depression.

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P1.034

Effects of Electro-acupuncture (EA) on the Behavioral changes and presenilin-1 (PS1) level in hippocampus of SAMP8 mice

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Purpose: To observe the effects of EA on the expression of PS1 protein level in hippocampus of SAMP8 mice. Investigating the mechanism of EA in therapeutic intervention of Alzheimer Disease (AD).

Methods: Ten male SAMR1 mice as the Normal control group. Twenty male SAMP8 mice were randomly divided into Model group and EA group (n=10 in each group). EA was stimulated at Baihui (GV20) and Yintang (GV29) for 20 min once a day (2 V, 1 mA). After 15 days, learning and memorizing abilities of mice were detected through Morris water maze. Observe the morphologic changes of PS1 and related metabolites in hippocampus through immunohistochemistry. Detecting PS1 level in hippocampus through Western blot method.

Results: 1) Each group showed a significant difference in latency time in different days. 2) Compared with normal control group, Model group showed an increasing latency time and a decreasing swimming time to passing through the platform and quadrants (P<0.05, P<0.01), while EA group showed an obvious decreasing latency time (P<0.05, P<0.01) and an increasing swimming time (P<0.01). 3) Immunohistochemical detection showed mice in EA group had a significant reduction in the expression of PS1 level in hippocampus while compared with the Model group. 4) Findings of Western blot revealed that compared with Model group, mice in Normal control group and EA group both had a reduction of PS1 content in hippocampus (P<0.05).

Conclusion: EA could have a certain effect to improve the learning and memorizing abilities of SAMP8 mice and, to some extent, may be able to help prevent AD. However, the regulating effect of EA on PS1 level is much greater, this outcome could be seen as one of the mechanisms of treating AD.

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Effect of Electro-Acupuncture on Behavioral Changes, Aβ and LRP1 level in Cortex of APP/PS1 Transgenic Mice

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Purpose: To observe whether LRP1 can be improved by electro-acupuncture (EA) to strength the clearance of Aβ in APP/PS1 transgenic mice, and to explore the mechanism of the EA therapy for Alzheimer’s disease.

Methods: Thirty-two 6-month-old APP/PS1 transgenic mice were randomly divided into model group and EA group, with sixteen C57BL/6 wild type mice as the normal control group. The Morris water maze was used to assess learning- memorize ability. Immunohistochemical method was used to observe the LRP1 and Aβ1-42 expression in the cortex. Aβ1-42 was detected by Enzyme-linked immunosorbent assays (ELISA) method and LRP1 was tested by Western Blotting in the cortex.

Results: The Morris water maze test showed the escape latency of model group increased, the number of platform- site crossover and the swimming distance in platform quadrant of model group were reduced compared with the control group (P<0.05, P<0.01), while the EA group could revise them (P<0.05). The ELISA result showed that the Aβ1-42 in the cortex of EA group obviously decreased compared with the model group (P<0.01). The level of LRP1 in the model group were lower than that in the control group (P<0.01), while the EA group could raise its expression (P<0.01).

Conclusion: EA therapy can improve the learning-memorize ability of the APP/PS1 transgenic mice, decrease the level of Aβ in cortex of them. The mechanism may be related to the up-regulation of Aβ transport receptor LRP1.

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Effect on Electro-acupuncture Intervention on Hippocampus Aβ Stain and Ultrastructure in APP/PS1 Double Transgenic Rats

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Purpose: To observe the influence of the electro-acupuncture(EA) for APP/PS1 double transgenic rat on spatial learning- memorize behavior, hippocampal Aβ stain and ultrastructure.