group（P ﹤ 0.01）, and the AAR group showed a better effect（P ﹤ 0.05）. The expression of Bax and Caspase-3 , compared with the model group, was decreased in the AAR group and the control group（P ﹤ 0.05/P ﹤ 0.01） , and the AAR group showed a better effect（P ﹤ 0.05）.

Conclusions:

1. The acupuncture therapy of activiting brain and regaining consciousness has a marked effect on ameliorating learning and memory ability of Alzheimer's rats.

2. The acupuncture therapy of activiting brain and regaining consciousness can improve learning and memory function of Alzheimer's disease rats through up-regulating the Bcl-2 and down-regulating the Bax and Caspase-3.

Key words:AD ; acupuncture therapy of activiting brain and regaining consciousness ; learning and memory ability ; cell apoptosis

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SCALP ACUPUNCTURE REGULATES TUMOR NECROSIS FACTOR ALPHA AND NUCLEAR FACTOR-KAPPAB PROTEIN EXPRESSION IN A RAT MODEL OF HEMORRHAGIC STROKE

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Abstract Background Hemorrhagic stroke is associated with high morbidity and mortality. Studies suggested that scalp acupuncture could facilitate functional recovery after cerebral hemorrhage.

Methods Adult male Sprague-Dawley rats received autologous blood (50 μl) into the right caudate nucleus on the right side under pentobarbital anesthesia, and then received scalp acupuncture or sham acupuncture. Western blot was used to detect the content of tumor necrosis factor alpha (TNF-α) and nuclear factor-KappaB (NFκB) protein expression.

Results Scalp acupuncture regulated the brain content of TNF-α and NF-κB (p<0.01 for both).

Conclusions Scalp acupuncture regulates tumor necrosis factor alpha and nuclear factor-KappaB protein expression in a rat model of hemorrhagic stroke.

1. Introduction Acupuncture is widely used as an alternative treatment of stroke patients in China. Acupuncture has multiple biological responses, including circulatory and biochemical effects.1 The effects are mediated mainly by sensory neurons to many structures within the central nervous system.2 These past studies indicated that SA could alleviate neurological deficits after hemorrhagic stroke. In this study, we used a rat model of hemorrhagic stroke to examine the potential mechanism of SA on neurological functions.

2. Materials and Methods Rats were anesthetized and fixed on a stereotactic frame. Autologous blood (50 μL) was injected into the right caudate putamen at the following coordinates: AP: -0.24 mm, L: 3.5 mm, D: 6 mm. Starting from the second day after the surgery, rats received SA (DU20 through GB7 on the lesion side; distance: 1.5 cm) or sham SA (from 1 cm to the right of DU20, for 1.5-cm along the nostril direction). Two sessions (each lasting for 30 min) were conducted daily for 7 consecutive days. For each 30-min session, needling (approximately180-200 r/min) was carried out for 3 bouts, each lasting for 5 min. Western blot assay was described in Liu's article3.

2.3 Statistical analysis Data were analyzed with SPSS 22.0 software. Protein expression was analyzed using one-way ANOVA followed by the Tukey's test. Data are represented as mean ± SD for protein expression. $p < 0.05$ have statistical significance.

3. Results SA treatment decreased TNF-α expression ($p < 0.01$ vs. rats in the model and sham group). SA treatment decreased NFκB expression ($p < 0.01$ vs. rats in the model and sham group).

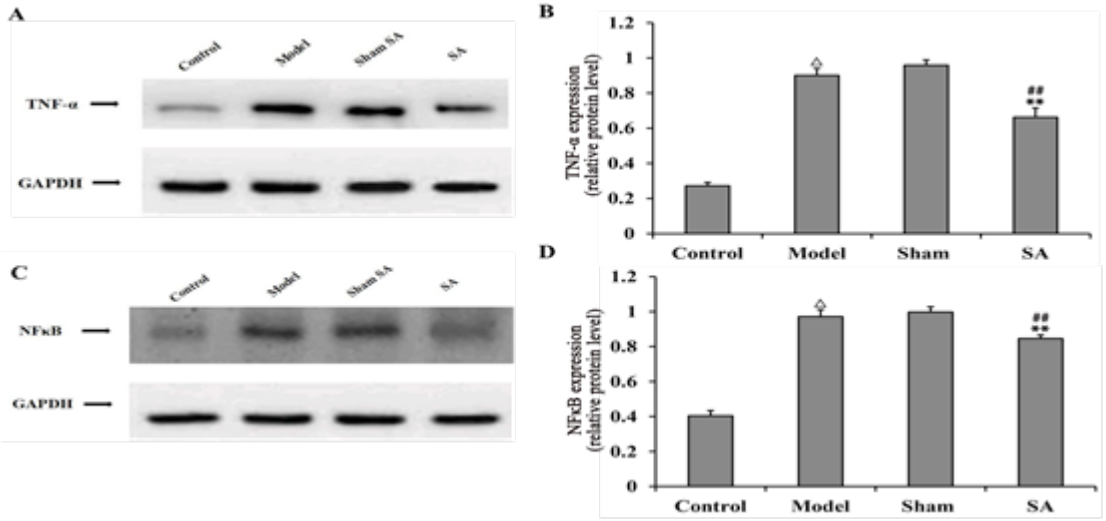

Fig. 1 (B/D) △p＜0.01, vs. healthy control; **p＜0.01, vs. rats receiving blood into the brain but no other treatment; ##p＜0.01, vs. sham SA.

4. Discussion The present study demonstrated that acupuncture DU20 through GB7 could regulated the brain content of TNF-α and NFκB induced by ICH in a rat model. TNF-α activates NFκB, and by doing so, reduces the integrity of the blood brain barrier, aggravates the development of cerebral edema. Inhibiting the expression of TNF-α/NFκB could reduce inflammatory responses, reduce nerve injury, and improve the recovery of neurological function.4 Examination of the protein content of TNF-α and NFκB in brain tissue in the current study showed reduced expression of TNF-α and NFκB by SA, suggesting that SA could inhibit inflammatory reaction. We speculate that SA produces its neuroprotective action against cerebral hemorrhage by influencing multiple molecular targets.

5. Conclusion SA could regulates TNF-α and NFκB expression in a rat model of hemorrhagic stroke.

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COMPARATIVE OBSERVATION OF EARLY STAGE SCAPULOH-UMERAL PERIARTHRITIS TREATED WITH KINETIC ACUPUNCTURE ON DISTAL POINTS OFTHE AFFECTED MERIDIANS

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Abstarct To compare the clinical therapeutic effects on scapulohumeral periarthritis between kinetic acupuncture on distal points of the affected meridians and shoulder three-needle therapy.

Keywords:Kinetic Acupuncture on the Distal Points of the Affected ; Meridians;Scapulohumeral Periarthritis;Shoulder Three-Needle Therapy

Objective:To compare the clinical therapeutic effects on scapulohumeral periarthritis between kinetic acupuncture on distal points of the affected meridians and shoulder three-needle therapy.

Methods : Fifty cases of scapulohumeral periarthriris from the acupuncture clinic of the second affiliated hospital of Heilongjiang University of Chinese Medicine were randomly divided into an observation group and a control group, 25 cases for each. The cases in observation group were treated with kinetic acupuncture on the distal points of the affected meridians. For example, the case of Hand-Taiyin type was treated with Yújì(LU 10) and the case of Hand-Yangming type was treated with Hégǔ(LI4),etc. The cases in control group were treated with shoulder three-needle therapy, in which, Jiānqián(Extral), Jiānyú(LI5),Jiānliáo(TE14) were selected; 7 days of treatment made one session, totally 2 sessions were required. Results before and after treatment was evaluated with Short Form McGill Pain Questionnaire score(SF-MPQ). Statistics and analysis was done using SPSS statistical software.

Results : 1. Comparison the two groups shoulder joint efficacy scores. In observation group, the curative rate based