



Fig. 1 (B/D) $\Delta p < 0.01$, 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 NF κ B induced by ICH in a rat model. TNF- α activates NF κ B, and by doing so, reduces the integrity of the blood brain barrier, aggravates the development of cerebral edema. Inhibiting the expression of TNF- α /NF κ B could reduce inflammatory responses, reduce nerve injury, and improve the recovery of neurological function. Examination of the protein content of TNF- α and NF κ B in brain tissue in the current study showed reduced expression of TNF- α and NF κ B 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 NF κ B expression in a rat model of hemorrhagic stroke.

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

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Abstract 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 periarthritis 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

on shoulder joint was 72.0% (18/25), which was superior to that of 40.0% (10/25) in control group. The observation group showed tendency to be more effective than the control group. 2. Comparing the two groups subjective feeling of pain rating index (PRI-A) showed statistically significant decreasing intervention curve among the two groups ($F=127.196$ $P<0.001$). The observation group expressed after treatment a larger decline than the control group. 3. Comparing the total score of pain sensation according to emotional items (PRI-B) between the two groups. Results showed that there was a statistical difference ($F=9.776$ $P=0.003$) between the two groups, comparing the decline of their respective curve on this issue. The observation group decline more than the control group. 4. Comparison between the two groups of the total assessed pain rating index score (PRI, subjective pain feeling item + emotion item). Results after comparing the two groups, showed that there was a statistical difference ($F=116.812$ $P<0.001$) between the two groups, comparing the decline of their respective curves on this issue. The observation group decline more than the control group. 5. Comparison between the two groups according to the rated Visual Analog Scale (VAS) assessed data. Results showed that there was a statistical difference ($F=416.263$ $P<0.001$) between the two groups, comparing the decline of their respective curve on this issue. The observation group decline more than the control group. 6. A comparison of the "Present Pain Index (PPI) between the two groups. Results showed that in the two groups, the decreased curve of PPI-score after the intervention expressed statistical significance ($F=5.119$ $P=0.028$). The observation group showed a better decline curve than the control group.

Conclusion : From the results of the clinical and experimental research, we consider that kinetic acupuncture on distal points of the affected meridians improve the symptom of scapulohumeral periarthritis, but the kinetic acupuncture on distal points of the affected meridians is superior than the shoulder three-needle therapy group. The treatment that giving kinetic acupuncture on distal points of the affected meridians can relieve the pain, improve the function of the shoulder. It has the advantage of low complications, economic and convenience, so the treatment is easily accepted by the patients.

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EFFECTS OF TIMOSAPONINS ON DIABETIC ENCEPHALOPATHY RATS INDUCED BY STREPTOZOTOCIN

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BACKGROUND: Many synthesized drugs used for diabetic encephalopathy (DE) treatment with clinical severe side effects. Therefore, it is urgent and necessary to identify natural and safe agents to remedy DE. Total timosaponin (TT) is one kind of major constituent in *Anemarrhena asphodeloides* Bunge which is widely used in traditional Chinese medicine [1, 2]. Timosaponin exhibits various activities, including anti-inflammatory [3, 4], hypoglycemic [5] and therapeutic effect on cognitive and behavioral impairment [6], calcium mobilization in vascular endothelial and smooth muscle cells [7], anticancer [8, 9], antiplatelet and antithrombotic [10]. However, the anti-DE effects and potential mechanism(s) of TT have not been previously reported.

OBJECTIVE: To observe the changes of hippocampal NF- κ B pathway in streptozotocin (STZ)-induced diabetic mice treated with TT, and explore the relationship between hypoglycemic and therapeutic effect of behavioral impairment, and whether has relationship with anti-oxidative and anti-apoptosis. To investigate the treatment mechanism of TT against DE is to provide experimental basis for treating complication of diabetes in clinical.

METHODS: TT was isolated from *A. asphodeloides* Bunge using macroporous adsorption resin and preparative high-performance liquid chromatography. Balb/C mice was intraperitoneal injection with STZ 60, 80, 100 mg·kg⁻¹ in three consecutive days respectively. The mice which was selected fasting blood glucose higher 16.67 mmol·L⁻¹ received TT 100 mg·kg⁻¹ by gavage after 35 days. The effect of TT on behavior changes was evaluated using Morris water maze 90 days later. Blood glucose level was measured by rapid blood sugar device, colorimetric method was used to measure malondialdehyde (MDA) and dehydrogenase (LDH), ultraviolet spectroscopy was used to measure superoxide dismutase (SOD) and Griess to measure nitric oxide (NO) level. An ELISA assay kit was used to measure inflammatory cytokines interleukin-6 (IL-6) and tumor necrosis factor- α (TNF- α) and hematoxylin and eosin (HE) dye to observe brain histopathological change. The expression of Bax, Bcl-2 and nuclear transcription factor- κ B (NF- κ B) protein was also measured using Western blot analysis.

RESULTS: Morris water maze behavioral test showing TT protective effects on learning and memory abilities injury. Compared to model group, TT reduced the escape latency time in the training trial and increased the swimming time in the target quadrant in the probe trial. TT significantly decreased the blood glucose levels and ameliorated hippocampus histopathological injury by HE method. TT treatment notably decreased MDA which are key biomarkers of brain oxidative stress and attenuated the reduction of LDH, lactate levels, and enhanced SOD activity and NO level.