# Abstracts

## USING HEART RATE VARIABILITY INDEX TO STUDY THE EFFECT OF THE SOURCE POINT AND THE COLLATERAL POINT COMBINATION ACUPUNCTURE ON AUTONOMIC NERVE FUNCTION IN POST-STROKE DEPRESSION PATIENTS

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**Objectives:** To observe the effect of acupuncture with the combined selection of the source point and the collateral point on the frequency domain indexes of heart rate variability in post-stroke depression patients, and to explore the changes of autonomic nerve function during acupuncture.

**Methods:** A total of 90 patients with post-stroke depression were randomly divided into Daling point group, Waiguan point group and Daling + Waiguan point group, with 30 cases in each group. They were acupunctured at Daling point, Waiguan point and Daling + Waiguan point respectively. The frequency domain indexes (low frequency power (LF), high frequency power (HF), and the ratio of low frequency to high frequency (LF/HF)) of the three groups of patients were detected with short-range records of Medilog AR12 electrocardiograph at 5 minutes before acupuncture, at the time of needling, 10 minutes after acupuncture, 20 minutes after acupuncture and 5 minutes after withdrawing the needles. After logarithmic transformation, the differences of log LF, log HF, and log LF/HF between the three groups were analyzed and compared by SPSS 23.0 statistical software.

**Results:** Compared with before acupuncture, the log LF and log HF values of Daling point group, Waiguan point group and Daling + Waiguan point group decreased significantly ($p < 0.05$), and the log LF/HF value increased significantly ($p < 0.05$); There were differences in log LF, log HF and log LF/HF among Daling point group, Waiguan point group and Daling + Waiguan group ($p < 0.05$); The values of log LF and log HF in the three groups have similar time effect trends.

**Conclusions:** Acupuncture at Daling point of the source point of the Hand-Jueyin Pericardium Meridian and Waiguan point of the collateral point of the Sanjiao Channel of Hand-Shaoyang can adjust the frequency domain indexes log LF, log HF and log LF/HF of patients with post-stroke depression. Acupuncture has a similar time effect trend on the adjustment of log LF and log HF values, and the regulation of the tension balance of sympathetic nerve and vagus nerve by acupuncture with the combined selection of the source point and the collateral point method is better than that of single point.

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## NEW IDEAS OF ARTIFICIAL INTELLIGENCE COMBINED WITH TRADITIONAL COMPOUND ACUPUNCTURE IN THE TREATMENT OF ANXIETY DISORDERS

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**Objective:** The purpose of the research is to summarize the research status of artificial intelligence in the field of acupuncture related technology modules, analyze and predict the development trend of the combination of artificial intelligence and traditional compound acupuncture, in order to provide new ideas for clinical application of artificial intelligence technology to assist acupuncture.

**Methods:** Taking CNKI and PubMed databases as data sources, and based on the inherent mechanism of artificial intelligence technology, the research results of artificial intelligence in simulating and replicating acupuncture operations during the period from January 1th, 2002 to July 1th, 2022 were retrieved, and a simulation based on artificial intelligence was constructed. A framework for compound acupuncture operations, and an example analysis of artificial intelligence technology in the field of simulated acupuncture operations.

**Results:** Under the technical integration of artificial intelligence and traditional compound acupuncture techniques, acupuncture techniques are simulated and quantified through micro-force sensing technology and biomechanical

principles. Artificial intelligence deeply learns and simulates and replicates standardized acupuncture manipulations, which can apply traditional double acupuncture manipulations to the clinic in a new form of operation.

**Conclusion:** The intelligentization of acupuncture technology has an important and positive effect on clinical, scientific and educational aspects, but the authors have not yet found the research results of the integration of artificial intelligence and traditional compound acupuncture techniques. The traditional compound acupuncture manipulations represented by "burning mountain fire", "cooling the sky" and "flying through the meridian and moving qi" have significant clinical curative effects, but the manipulation techniques are complicated, and the individual differences among practitioners make acupuncture. The operation is difficult to quantify and standardize, and many factors, such as acupuncture time, frequency, angle, strength, amplitude, and depth, have a direct impact on the treatment results. Through the technical integration of artificial intelligence and traditional duplex acupuncture techniques, complex duplex acupuncture operations can be programmed and standardized, and the stimulation volume can be fed back and quantified, resulting in better clinical effects.

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# OBSERVATION ON THE THERAPEUTIC EFFECT OF GOUACHE COLOR APPLIED TO PSYCHOLOGICAL MEDIATED PERSONALIZED TRAINING ON COGNITIVE IMPAIRMENT IN PATIENTS WITH SEVERE DEPRESSION

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**Objective:** To explore the effect of using gouache color matching psychology mediated personalized training on cognitive dysfunction in patients with severe depression.

**Methods:** 86 patients with major depression admitted to the Affiliated Hospital of a University Medical College from June 2019 to March 2022 were selected as the study subjects, and were randomly divided into observation group and control group, with 43 patients in each group. Patients in both groups were treated with non-convulsive electroconvulsive therapy (MECT); Patients in the observation group were also treated with gouache color matching psychology mediated personalized training while carrying out MECT. On the 3rd, 6th, 12th and 24th day after the treatment, MMSE was used to evaluate the treatment effect of the two groups.

**Results:** after treatment, the MMSE total score and each item score of the two groups decreased compared with that before treatment ($P < 0.05$); Comparison of scores between the two groups: on the first 3 days, there was no statistical difference between the two groups ($P > 0.05$). On the sixth day after treatment, the total MMSE score and scores of other items except memory items of the patients in the observation group were significantly higher than those on the first day of treatment ($P < 0.05$); After 24 days of treatment, the total MMSE scores and individual scores between the two groups were not significantly different from those before treatment ($P > 0.05$).

**Conclusion:** after MECT treatment, patients may have cognitive dysfunction in a short period of time. Implementing psychological mediated personalized training of gouache color matching has a significant effect on cognitive dysfunction in patients with severe depression in a short period of time.

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# EFFECT OF PERSONALIZED MUSIC THERAPY ON PSYCHOTHERAPY AND NURSING OF CEREBRAL INFARCTION PATIENTS

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**Objective:** To observe the difference of clinical efficacy of individualized music in treating patients with acute cerebral infarction.

**Methods:** 112 in patients with acute cerebral infarction treated in a University Affiliated Hospital from January 2019 to December 2021 were divided into control group and music treatment group, with 56 patients in each group. After 12 weeks of continuous treatment, the patients in the two groups were scored by the consciousness disorder scale in the National Institutes of Health Stroke Scale (NIHSS), and the consciousness states of the two groups were compared. After treatment, the clinical efficacy of the two groups of patients was judged.

**Results:** the daily living ability of patients in both groups was improved after treatment. However, 31 cases were cured in the music treatment group and 17 cases were cured in the acute control group. The difference between the two groups was statistically significant ($P < 0.05$).