

Research Progress of Traditional Chinese Medicine Nursing Techniques in Cognitive Function Rehabilitation after Stroke

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Abstract: Post-stroke cognitive impairment (PSCI) is one of the common complications among stroke patients, significantly affecting their quality of life and prognosis. Traditional Chinese Medicine (TCM) nursing techniques possess unique advantages such as simplicity, convenience, and affordability, playing a crucial role in the cognitive function rehabilitation of post-stroke patients. This paper aims to review the research progress on TCM nursing techniques applied in clinical practice, providing references for selecting appropriate nursing plans for post-stroke patients.

Keywords: traditional Chinese medicine nursing, stroke, cognitive function rehabilitation, research progress

1. Introduction

Post-stroke cognitive impairment (PSCI) affects a significant proportion of stroke survivors, severely impacting their quality of life. Traditional Chinese Medicine (TCM) nursing techniques, such as acupoint massage and auricular point pressure, have shown promise in cognitive rehabilitation. PSCI, characterized by deficits in memory, language, and executive functions, poses substantial challenges for patients and healthcare providers. Understanding TCM nursing techniques is crucial for developing effective rehabilitation strategies. This review employs a systematic approach to analyze existing literature on TCM nursing interventions for PSCI. By synthesizing data from clinical studies, we aim to highlight the efficacy and practical applications of these techniques. Specifically, we examine acupoint massage, auricular point pressure, traditional exercises like Baduanjin and Tai Chi, and emotional care. Our analysis underscores the importance of integrating TCM with modern rehabilitation methods. The paper is structured to first discuss the etiology and pathogenesis of PSCI in TCM, followed by detailed examinations of various TCM nursing techniques, and concludes with recommendations for future research and practice.

2. Epidemiology of PSCI

According to the "China Stroke Prevention Report," there are approximately 70 million stroke survivors in China, with 2 million new cases annually. Stroke not only leads to high mortality rates but also often results in various functional impairments, among which cognitive dysfunction is a prevalent sequela. Studies have shown that the incidence of PSCI ranges from 50% to 75%[1], meaning every two stroke patients will likely experience significant cognitive decline. Post-stroke cognitive impairment (PSCI), defined as cognitive decline occurring within six months after a stroke event, primarily manifests as deficits in memory, language, visuospatial skills, executive functions, calculation abilities, and comprehension judgment[2]. These impairments can lead to difficulties in daily living and social adaptation, severely impacting patients' independence and activity levels[3], thus reducing their motivation for rehabilitation treatment.

2.1 Importance of Rehabilitation Treatment for PSCI patients

Rehabilitation treatment not only improves physical functions but also enhances cognitive functions, thereby improving the quality of life. Rehabilitation includes physical therapy, occupational therapy, speech therapy, and other aspects. Cognitive rehabilitation training specifically targets cognitive functions through methods like memory training, attention training, and executive function training[4]. Systematic cognitive training helps improve memory, attention, and problem-solving abilities, aiding patients in recovering lost cognitive functions and better adapting to daily life. Modern rehabilitation technologies, such as virtual reality training and computer-assisted training, provide rich visual, auditory, and tactile stimuli, further aiding cognitive recovery.

2.2 Current challenges in PSCI Rehabilitation

Despite advancements in medical technology, several challenges remain in PSCI rehabilitation:

①The complexity of cognitive function assessment[5] involves multiple cognitive domains, making standardized evaluation difficult.

②Although cognitive rehabilitation training has proven effective, its efficacy varies due to individual differences, necessitating further research for optimized and personalized applications.

③Uneven distribution of medical resources limits timely access to rehabilitation treatments in some regions.

④Patient compliance and participation are critical factors influencing rehabilitation outcomes[6]. Many stroke patients and their families do not prioritize cognitive function rehabilitation, leading to poor adherence.

⑤ Persistent involvement in rehabilitation is challenging for many patients due to cognitive impairments, directly affecting rehabilitation outcomes.

⑥ Early intervention significantly improves rehabilitation effectiveness[7], yet many patients delay starting rehabilitation due to prolonged hospital stays during the acute phase.

2.3 Prospects of TCM Nursing Techniques in PSCI

As a treasure of traditional Chinese medicine, TCM demonstrates unique advantages in the rehabilitation of post-stroke cognitive dysfunction[8]. TCM nursing techniques, characterized by simplicity, minimal side effects, and personalization, offer high clinical application value. The "National Nursing Career Development Plan (2021-2025)"[9] emphasizes promoting syndrome differentiation-based care and TCM specialty nursing, leveraging TCM's holistic view and syndrome differentiation principles. This paper reviews the latest research progress on TCM nursing techniques in cognitive function rehabilitation after stroke, aiming to optimize TCM-specific care plans and construct effective clinical rehabilitation pathways for PSCI patients.

2.4 Application of TCM Nursing Techniques in PSCI

2.4.1 Etiology and Pathogenesis of PSCI in TCM

In TCM, the occurrence of post-stroke cognitive dysfunction is associated with factors such as constitution, emotions, diet, etc. Deficiencies in qi and blood lead to insufficient cerebral perfusion, phlegm obstruction of meridians causes circulatory disturbances, and kidney essence deficiency results in inadequate brain marrow, collectively contributing to cognitive decline[10]. Therefore, TCM treatment focuses on regulating qi and blood, unblocking meridians, and replenishing kidney essence to improve cognitive functions.

Based on TCM theory, post-stroke cognitive dysfunction is mainly related to deficiencies in qi and blood, phlegm obstruction of meridians, and kidney essence deficiency. These theories provide a theoretical foundation for applying TCM nursing techniques.

2.4.2 Common TCM Nursing Techniques for PSCI

TCM nursing techniques such as acupoint massage, auricular point pressure, traditional exercise methods, and emotional care play essential roles in preventing and treating PSCI[11].

①Acupoint Massage.

Acupoint massage involves stimulating specific acupoints to regulate qi and blood flow, unblock meridians, and enhance defensive qi. Studies have shown that acupoint massage on Shenmen, Taixi, and Baihui points significantly improves cognitive function and activities of daily living scores in PSCI patients. For example, Gao Jie et al.[12] conducted a 12-week intervention combining routine cognitive rehabilitation training with acupoint massage, resulting in improved cognitive function and reduced amyloid-beta levels[13][14].

②Auricular Point Pressure.

Auricular point pressure involves applying seeds or smooth pills to ear acupoints to stimulate local areas, promoting circulation and regulating organ functions. Gao Yan et al.[15] treated 40 PSCI patients using auricular point pressure on heart, brain, kidney, subcortical, ear center, spirit gate, and sympathetic points, achieving an 85% efficacy rate.

③Traditional Exercise Methods.

TCM traditional exercises like Baduanjin, Wuqinxi, and Tai Chi regulate body functions through specific postures, movements, and breathing techniques. Zheng [16] studied the effects of a 6-month Baduanjin intervention on 24 PSCI patients, showing improvements in executive function, memory, attention, and numerical symbol conversion speed. Huang[17] observed positive effects of a 24-week Tai Chi intervention on cognitive symptoms in PSCI patients.

④Emotional Care.

Emotional care addresses the imbalance caused by excessive emotions, which disrupts yin-yang harmony, qi-blood circulation, and organ functions. Anxiety, depression, and agitation are common in PSCI patients[2]. Bei Yonghong et al.[18] found that TCM emotional care not only improves cognitive function but also alleviates anxiety and depression, enhancing quality of life.

⑤Combined Therapy.

Combining TCM and Western nursing techniques has shown promising results in PSCI rehabilitation. Chen Bin et al.[19]combined acupuncture with cognitive rehabilitation training, demonstrating superior outcomes compared to control groups.

2.5 Advantages and Limitations of TCM Nursing Techniques in PSCI Rehabilitation

TCM nursing techniques offer advantages such as overall regulation of brain function, minimal side effects, ease of use, and affordability[20]. However, challenges include varying mechanisms of action, lack of unified efficacy evaluation standards, and inconsistent study quality, necessitating more high-quality, multicenter, large-sample clinical studies.

3. Conclusion and Outlook

TCM nursing techniques, including acupoint massage, auricular point pressure, traditional exercises, emotional care, and combined therapies, show significant benefits in improving PSCI-related symptoms and enhancing patient quality of life. “Standardizing TCM nursing procedures” based on guidelines from the Chinese Society of Traditional Chinese Medicine[21] and the National Administration of Traditional Chinese Medicine[22] will facilitate the development of precise TCM nursing techniques, integrating modern medical advances like transcranial magnetic stimulation and virtual reality for comprehensive, multidisciplinary treatment approaches.

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