JOURNAL OF EUROPEAN ACADEMY OPEN UNIVERSITY OPEN UNIVERSITY

Vol. 2, No. 1, 2026 18
Research Article

A Study of Integrated Traditional Chinese Medicine (TCM) Intervention for Diabetic Peripheral Neuropathy Rehabilitation: Based on the Spleen-Kidney Correlation Theory

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Abstract

This study thoroughly explores the practical application value and efficacy of a comprehensive treatment regimen based on the traditional Chinese medicine (TCM) theory of "Spleen-Kidney Correlation" in the rehabilitation process of diabetic peripheral neuropathy (DPN). By systematically reviewing the historical origins, core connotations, and significant position of the "Spleen-Kidney Correlation" theory within the TCM theoretical framework, and integrating modern medical understanding of the pathogenesis of DPN, this study further analyzes the pathological characteristics of the disease from a TCM perspective. It proposes a comprehensive treatment strategy primarily guided by the principles of strengthening the spleen and kidney, as well as promoting collateral circulation and activating blood flow.

During the implementation of the study, we rigorously designed a scientific research framework, established clear inclusion and exclusion criteria for study subjects, and adopted a randomized controlled trial method to ensure the reliability and comparability of the data. By systematically observing the physiological indicators, symptom improvement, and changes in quality of life of patients after receiving the comprehensive Traditional Chinese Medicine (TCM) treatment regimen, we comprehensively evaluated the clinical efficacy of this protocol.

Keywords

Diabetic Peripheral Neuropathy (DPN); Spleen-Kidney Correlation Theory; Integrated Traditional Chinese Medicine (TCM) Intervention; Strengthening Spleen and Tonifying Kidney; Promoting Blood Circulation and Unblocking Collaterals

基于脾肾相关理论的中医药综合干预在糖尿病周围神经病变康复中的研究

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摘要

本研究深入探讨了基于中医药“脾肾相关理论”的综合治疗方案在糖尿病周围神经病变（DPN）康复过程中的实际应用价值与疗效。通过系统梳理“脾肾相关理论”在中医药理论体系中的历史渊源、

核心内涵及重要地位，结合现代医学对糖尿病周围神经病变发病机制的认知，从中医药视角进一步分析了该病的病理特点，提出了以健脾益肾、活血通络为核心指导原则的综合治疗策略。在研究实施过程中，课题组严格设计科学的研究框架，制定明确的研究对象纳入与排除标准，并采用随机对照试验方法，以确保数据的可靠性与可比性。通过系统观察患者接受中医药综合治疗方案后生理指标、症状改善及生活质量变化情况，对该方案的临床疗效进行了全面评价。

关键词

糖尿病周围神经病变（DPN）；脾肾相关理论；中医药综合干预；健脾益肾；活血通络

1. Introduction

1.1 Research Background and Significance

1.1.1 Clinical Incidence, Hazards and Limitations of Western Medical Treatment for Diabetic Peripheral Neuropathy

Diabetic peripheral neuropathy (DPN), as one of the common chronic complications of diabetes mellitus, has shown an increasing clinical incidence rate year by year, severely affecting patients quality of life and increasing the risk of amputation. Current Western medical treatments primarily rely on medications for glycemic control, microcirculation improvement, and neurotrophic support. However, these approaches exhibit limitations such as limited efficacy, significant side effects, and inability to reverse nerve damage. Particularly for patients with prolonged disease duration and complex conditions, therapeutic outcomes often remain unsatisfactory.

1.1.2 Application Value of "Spleen–Kidney Correlation" Theory in Chronic Complications of Diabetes

The "Spleen–Kidney Correlation" theory originates from the Tibetan Image Theory in Traditional Chinese Medicine (TCM), emphasizing the physiological interdependence and pathological mutual influence between the spleen and kidney. This theory demonstrates significant clinical value in the pathogenesis and progression of chronic complications of diabetes mellitus. The spleen, as the foundation of acquired constitution and the source of qi and blood production, governs the transportation and transformation of the essence of food and drink; the kidney, as the foundation of innate constitution, governs the storage of essence and the metabolism of body fluids. The two are closely related in the pathogenesis of diabetes and its complications. Impaired spleen function leads to inadequate distribution of the essence of food and drink, resulting in insufficient qi and blood production and malnourishment of the kidney. Insufficient kidney yang fails to warm the spleen yang, further exacerbating spleen dysfunction. This pathological mutual influence between the spleen and kidney is particularly prominent in chronic complications such as diabetic peripheral neuropathy. Based on the "Spleen–Kidney Correlation" theory, a comprehensive TCM treatment regimen that strengthens the spleen, benefits the kidney, and harmonizes the functions of both can fundamentally improve the patients constitution, regulate the internal environment, effectively alleviate symptoms of diabetic peripheral neuropathy, and enhance the patients quality of life, demonstrating unique theoretical advantages and clinical application prospects.

1.2 Domestic and International Research Status

1.2.1 Western Medicine on the Pathogenesis and Treatment Progress of Diabetic Peripheral Neuropathy

Western medicine considers the pathogenesis of diabetic peripheral neuropathy to be relatively complex and not yet fully elucidated. However, it is generally believed to be associated with multiple mechanisms, including metabolic disturbances caused by hyperglycemia, microvascular complications, deficiency of neurotrophic factors, oxidative stress, and immune factors. In terms of therapeutic advancements, Western medicine primarily employs measures such as glycemic control, microcirculation improvement, neurotrophic support, antioxidant stress management, and symptomatic treatment. Glycemic control serves as the foundational therapy, achieved through oral hypoglycemic agents or insulin therapy to maintain blood glucose levels within a reasonable range, thereby slowing the progression of neuropathy. Microcirculation-improving agents dilate blood vessels, increase neural blood flow, and alleviate ischemic and hypoxic conditions in nerves. Neurotrophic agents provide essential nutrients to nerves, promoting their repair. Antioxidant stress agents mitigate oxidative damage to nerves. Nevertheless, while Western medicine can alleviate symptoms to some extent, it faces challenges such as significant drug side effects and limited therapeutic efficacy, making it difficult to fundamentally reverse the progression of neuropathy.

1.2.2 The Mechanism of TCM in Diabetic Peripheral Neuropathy and the Current Situation of TCM Treatment

Traditional Chinese Medicine (TCM) classifies diabetic peripheral neuropathy under the category of "bi syndrome of diabetes." Its pathogenesis is primarily associated with prolonged diabetes, deficiency of qi, blood, yin, and yang, and phlegm-stasis obstructing collaterals. In the early stages of diabetes, the condition often manifests as yin deficiency with dryness and heat. Over time, it depletes qi and injures yin, leading to dual deficiency of qi and yin. Further progression may result in dual deficiency of yin and yang. Qi deficiency impairs blood circulation, yin deficiency deprives collaterals of nourishment, and yang deficiency causes cold to congeal in the meridians. Additionally, pathological products such as phlegm-turbidity and blood stasis interconnect, obstructing collaterals and causing symptoms like limb numbness, pain, and sensory abnormalities. In terms of current TCM treatment approaches, diabetic peripheral neuropathy is often managed through syndrome differentiation and treatment. Based on the patients specific symptoms, signs, and tongue-pulse manifestations, it is classified into different syndromes, such as qi deficiency with blood stasis, yin deficiency with blood stasis, phlegm-stasis obstructing collaterals, and liver-kidney deficiency, each treated with corresponding herbal formulas. Furthermore, TCM frequently employs external therapies such as acupuncture, massage, herbal fumigation and washing, as well as comprehensive internal and external therapies to enhance clinical efficacy.

1.3 Research Objectives and Content

1.3.1 Rehabilitation Effect of Integrated Traditional Chinese Medicine Based on the

Theory of Spleen–Kidney Correlation on Diabetic Peripheral Neuropathy

Through rigorous clinical trial design, this study compares the traditional treatment methods to evaluate the specific efficacy of the proposed protocol in improving symptoms such as limb numbness, pain, and paresthesia in patients. Simultaneously, it observes the impact on patient quality of life and nerve conduction velocity, thereby validating the effectiveness and superiority of the protocol with scientific data.

1.3.2 Investigate the mechanism of action and clinical feasibility of this regimen

From the perspective of molecular biology, this study conducts an in-depth analysis of the target mechanisms of the integrated Traditional Chinese Medicine (TCM) regimen guided by the "spleen–kidney correlation" theory, exploring its specific effects on neural cell repair, microcirculation improvement, and inflammatory response modulation. Simultaneously, by collecting clinical case data, the applicability of this regimen is evaluated across different disease stages and syndrome patterns, assessing its feasibility for promotion and application in healthcare institutions at all levels. This provides theoretical support and practical evidence for the widespread application of the integrated TCM regimen in the treatment of diabetic peripheral neuropathy.

2. Theoretical Foundation and Research Basis

2.1 The Connotation and Origin of the "Spleen–Kidney Correlation" Theory

2.1.1 Physiological Functions and Mutual Relationships of the Spleen and Kidney Organs

The spleen and kidney play pivotal roles in human physiological functions. The spleen governs transportation and transformation, serving as the foundation of acquired constitution and the source of qi and blood production. It is responsible for converting ingested food into nutrients and distributing them throughout the body to nourish the viscera, meridians, and extremities. The kidney, on the other hand, stores essence, acting as the foundation of innate constitution and governing growth, development, and reproduction. The essence and qi within the kidney constitute the fundamental substances that form the human body and sustain life activities, while also serving as the material basis for growth, development, and various functional activities. Physiologically, the spleen and kidney mutually support and enhance each other. The spleens transportation and transformation functions rely on the warming of kidney yang, while the kidneys essence and qi require continuous replenishment and transformation from the nutrients processed by the spleen. Together, they maintain the bodys vital activities.

2.1.2 Application Principles of "Spleen–Kidney Correlation" Theory in Clinical Practice of Traditional Chinese Medicine

The "Spleen–Kidney Correlation" theory in Traditional Chinese Medicine (TCM) emphasizes the integrated treatment of the spleen and kidney, combining holistic regulation with syndrome differentiation and treatment. In clinical practice, it is essential to consider the specific conditions of the patient, taking into account the physiological functions and pathological changes of both the spleen and kidney. The approach should aim to strengthen the spleen and replenish qi

to aid digestion and transportation, while also warming and tonifying kidney yang to consolidate the foundation. Additionally, attention must be paid to the compatibility and contraindications of medicinal herbs to ensure safe and effective medication, thereby achieving the goals of improving clinical symptoms and enhancing quality of life.

2.2 Pathogenesis Analysis of Diabetic Peripheral Neuropathy in Traditional Chinese Medicine

2.2.1 Deficiency of both spleen and kidney is the root cause of the disease, while blood stasis obstructing the collaterals is the manifestation.

The pathogenesis of diabetic peripheral neuropathy primarily stems from the deficiency of spleen and kidney functions. The spleen, as the foundation of acquired constitution and the source of qi and blood production, becomes deficient when its transportation and transformation functions are impaired, leading to insufficient qi and blood generation and malnourishment of the limbs and bones. The kidney, as the foundation of innate constitution and the primary storage of essence, becomes deficient when its essence is depleted, resulting in insufficient marrow and malnourishment of the tendons and vessels. Concurrently, yang deficiency in both the spleen and kidney impairs their warming and nourishing functions, causing cold stagnation and qi stagnation, which obstructs blood circulation and leads to blood stasis. This blood stasis blocks the collaterals, further impeding the flow of qi and blood, exacerbating the malnutrition of the limbs and thereby triggering various symptoms of diabetic peripheral neuropathy. Thus, the deficiency of both the spleen and kidney is the root cause of diabetic peripheral neuropathy, while blood stasis obstructing the collaterals is a significant clinical manifestation of its onset.

2.2.2 The Mutual Influence Mechanism of Deficiency of Spleen and Kidney and Blood Stasis Blocking Collaterals

There exists a close interdependent relationship between spleen–kidney deficiency and blood stasis obstructing collaterals. Spleen–kidney deficiency leads to insufficient qi and blood production, resulting in malnutrition of the marrow sea, which in turn deprives the limbs, bones, and tendons of adequate nourishment. This state of weakness not only impairs normal physiological functions but also provides a pathological basis for blood stasis formation. Due to yang deficiency of the spleen and kidneys, the warming function fails, leading to cold stagnation and qi stagnation, which ultimately obstructs blood circulation and results in blood stasis. Once formed, blood stasis blocks and damages collaterals, further impeding qi and blood flow and exacerbating malnutrition in the limbs. This vicious cycle not only aggravates symptoms of diabetic peripheral neuropathy but also makes the condition protracted and difficult to cure, causing significant suffering to patients. Therefore, a thorough understanding of the interdependent mechanism between spleen–kidney deficiency and blood stasis obstructing collaterals is of great significance for elucidating the pathogenesis of diabetic peripheral neuropathy and formulating effective treatment strategies.

2.3 Basis for Constructing Integrated Traditional Chinese Medicine (TCM) Treatment

Plans

2.3.1 Establishment of Treatment Methods for Strengthening Spleen and Kidney, Promoting Blood Circulation, and Unblocking Collaterals

Based on the pathogenesis understanding of diabetic peripheral neuropathy in Traditional Chinese Medicine (TCM), which identifies deficiency of both spleen and kidney as the root cause and blood stasis obstructing collaterals as the manifestation, a therapeutic approach of strengthening the spleen and kidney while promoting blood circulation and unblocking collaterals was established. Strengthening the spleen and kidney aims to restore the physiological functions of these organs, enhance the source of qi and blood production, and improve the malnourished state of the marrow, thereby providing adequate nourishment and replenishment for the limbs, bones, and tendons. Promoting blood circulation and unblocking collaterals targets the pathological state of blood stasis obstructing collaterals by facilitating blood flow, eliminating stasis, and restoring normal qi and blood circulation, thereby breaking the vicious cycle between spleen–kidney deficiency and blood stasis obstruction. The establishment of this therapeutic approach provides the core treatment principles for constructing comprehensive TCM regimens.

2.3.2 Compatibility Principles of Oral Administration, External Treatment, and Regulating Methods in Traditional Chinese Medicine

The oral administration of traditional Chinese medicine (TCM) primarily follows the principles of strengthening the spleen and kidneys, promoting blood circulation, and unblocking collaterals. It involves the selection of carefully curated TCM herbs with the effects of tonifying the spleen and kidneys and resolving blood stasis, aiming to fundamentally regulate the constitution of spleen–kidney deficiency and improve the condition of impaired qi and blood circulation. For external treatments, methods such as herbal fumigation and washing, acupuncture, and massage are employed. These techniques stimulate the meridians and acupoints to promote local blood circulation and alleviate symptoms such as pain and numbness caused by neuropathy. The conditioning approach emphasizes dietary regulation, emotional adjustment, and physical exercise. Through proper dietary combinations, psychological counseling, and appropriate exercise, the constitution of patients is enhanced, and the bodys self–repair capacity is improved. These three aspects complement each other, collectively forming the therapeutic system of the comprehensive TCM treatment plan.

3. Research Subjects and Methods

3.1 Research Subjects

3.1.1 Source of cases and inclusion criteria (diabetes mellitus, diagnostic criteria for diabetic peripheral neuropathy + TCM syndrome differentiation criteria)

The cases were sourced from the endocrinology outpatient and inpatient departments of a local tertiary hospital, selecting patients diagnosed with diabetes mellitus (DM) complicated by peripheral

neuropathy. The inclusion criteria included: meeting the World Health Organization (WHO) diagnostic criteria for DM, accompanied by clinical manifestations of peripheral neuropathy and abnormal findings in neuroelectrophysiological examinations; Traditional Chinese Medicine (TCM) syndrome differentiation consistent with spleen–kidney deficiency and blood stasis obstructing collaterals, specifically manifested as limb numbness, pain, and sensory impairment, along with symptoms such as fatigue, soreness and weakness in the lower back and knees, and a dull complexion. The tongue was dark purple or with ecchymosis, the coating was thin and white, and the pulse was deep, thin, and wiry.

3.1.2 Exclusion criteria, dropout criteria, and loss-to-follow-up criteria

Exclusion criteria: Patients who do not meet the above inclusion criteria; patients with severe dysfunction of vital organs such as the heart, liver, or kidneys; patients with other serious complications, such as diabetic foot or severe retinopathy, which may affect the interpretation of study results; pregnant or lactating women; and patients with allergies to the herbal components used in this study.

Exclusion criteria: Patients who were found to meet the inclusion criteria or the exclusion criteria after enrollment; patients who did not receive treatment as prescribed during the study and could not be evaluated for efficacy; patients with incomplete data that affected the assessment of efficacy and safety.

Exclusion criteria: Patients who voluntarily withdraw from the study; patients who experience severe adverse reactions, complications, or specific physiological changes during the study and are deemed unsuitable for continued participation; and patients who become lost to follow-up.

3.1.3 Sample Size Estimation and Stratification Methods (Randomized Controlled Stratification)

The sample size was estimated based on preliminary pre-experimental results and statistical requirements, determined using formula calculation methods to ensure the study has sufficient power to detect between-group differences. Randomization was performed using the random number table method, with enrolled patients divided into a treatment group and a control group in a 1:1 ratio to ensure baseline data equilibrium and comparability between the two groups, thereby reducing selection bias.

3.2 Treatment Protocol

3.2.1 Control group: Conventional Western medical treatment (blood glucose control, neurotrophic therapy, microcirculation improvement)

Treatment Group: In addition to the conventional Western medical treatment regimen in the control group, a comprehensive traditional Chinese medicine (TCM) treatment protocol was implemented. The TCM protocol included oral administration of herbal medicines, with personalized herbal prescriptions tailored to the patients specific condition and constitutional characteristics, based on syndrome differentiation and treatment principles, focusing on strengthening the spleen and kidneys, promoting blood circulation, and unblocking meridians. Concurrently, external TCM therapies

such as herbal foot baths and acupoint application were employed to enhance the dual effects of herbal medicines and meridian stimulation through skin absorption and acupoint stimulation. Additionally, comprehensive management methods including dietary adjustments and exercise guidance were provided to improve the patients constitution and enhance therapeutic outcomes.

Observation group: Conventional Western medicine treatment + comprehensive Traditional Chinese Medicine (TCM) regimen based on the theory of spleen–kidney correlation (oral administration of Chinese herbal medicine, acupoint application, dietary and exercise therapy)

Specifically, oral administration of traditional Chinese medicine (TCM) is based on the theory of "spleen–kidney correlation," aiming to address individual patient differences through precise syndrome differentiation and the prescription of personalized formulas. The goal is to strengthen the spleen and kidneys, activate blood circulation, and unblock meridians, thereby regulating the body from within. Acupoint application involves selecting specific acupoints and applying medications to stimulate these points continuously, thereby activating meridian qi, promoting blood and qi circulation, and enhancing the bodys resistance. In terms of dietary and exercise management, a scientifically sound and reasonable dietary plan is formulated according to the patients condition and constitution, and appropriate exercise is guided to improve bodily functions, enhance quality of life, and comprehensively promote patient recovery.

3.2.2 Intervention Cycle and Compliance Control

The intervention period was set at 12 weeks, with weekly follow–ups conducted to monitor disease progression and treatment adherence. To enhance patient compliance, the research team developed a comprehensive patient education program, which included explanations on the importance of treatment, medication administration methods, dietary and exercise precautions, among others. A patient communication group was established to facilitate the exchange of experiences and insights among patients. Additionally, the research team implemented an incentive mechanism, offering rewards to patients with high adherence rates to motivate continued treatment adherence.

3.3 Observation Indicators

3.3.1 Traditional Chinese Medicine Syndrome Score (Symptom Rating for Spleen–Kidney Deficiency and Blood Stasis Obstructing Collaterals)

Detailed scoring will be conducted for symptoms related to spleen–kidney deficiency and blood stasis obstructing collaterals, such as fatigue, soreness and weakness in the lumbar and knee regions, limb numbness, and pain. Through quantitative scoring, the improvement of Traditional Chinese Medicine (TCM) syndromes in patients can be more accurately assessed, providing an objective basis for evaluating treatment efficacy. Additionally, scores will be recorded before and after intervention to facilitate comparative analysis of the impact of the intervention measures on TCM syndromes.

3.3.2 Objective assessment indicators (neural conduction velocity, blood glucose, and glycated hemoglobin levels)

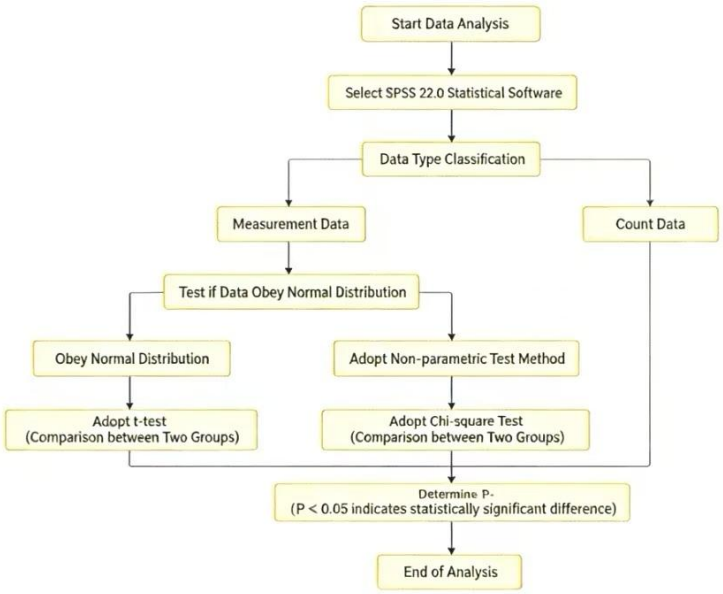
In addition to the Traditional Chinese Medicine (TCM) syndrome score, a series of objective examination indicators will be employed to evaluate the intervention effects. These include the

assessment of nerve conduction velocity to evaluate the recovery of patients neurological function, as well as the monitoring of blood glucose and glycated hemoglobin (HbA1c) levels. These indicators reflect the long-term efficacy of glycemic control and are of significant importance in assessing the role of interventions in improving patients metabolic status.

3.4 Statistical Methods

3.4.1 Methods of Data Entry and Organization

A dual-entry method was adopted to ensure the accuracy of data input. The entered data were checked for completeness, logical consistency, and rationality, with any questionable data promptly verified against the original records and corrected. The processed data were categorized and stored according to different observation indicators and grouping for subsequent statistical analysis.



4. Research Findings

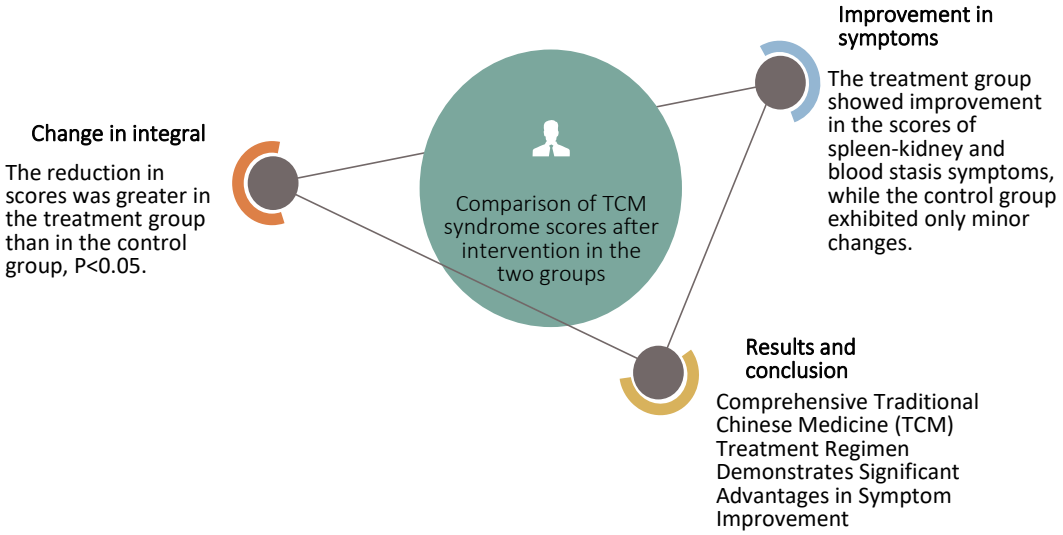
4.1 Comparison of baseline data between the two groups (general information such as gender, age, disease duration, and pre-intervention indicators)

The results showed that there were no significant differences between the two groups in general data such as gender, age, and disease duration, as well as in pre-intervention indicators including TCM syndrome scores, nerve conduction velocity, blood glucose, and glycated hemoglobin levels ($P>0.05$), indicating that the baseline data of the two groups were comparable.

4.2 Comparison of TCM syndrome score changes after intervention in the two groups

After intervention, the TCM syndrome scores of patients in the treatment group were significantly reduced compared to pre-intervention levels, with a markedly greater reduction than that in the control group ($P<0.05$). Specifically, the treatment group showed significant improvement in scores related to symptoms of spleen-kidney deficiency (e.g., fatigue, soreness and weakness in the lower

back and knees) and symptoms of blood stasis obstructing collaterals (e.g., limb numbness, stabbing pain). Although the control group also exhibited some degree of reduction, the improvement was less pronounced. These results indicate that the comprehensive TCM regimen demonstrates significant advantages in improving TCM syndrome patterns in patients with diabetic peripheral neuropathy.

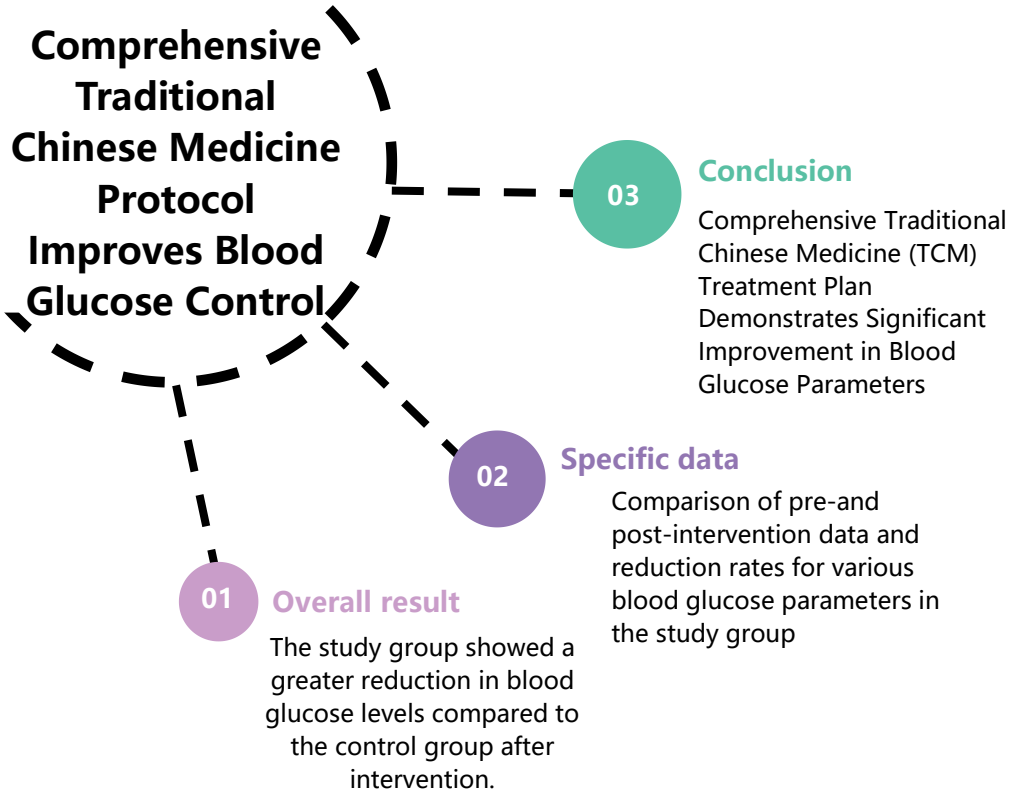


4.3 Comparison of changes in nerve conduction velocity after intervention in the two groups

After intervention, the nerve conduction velocity of patients in the treatment group was significantly improved compared to before the intervention, with a markedly greater improvement than that in the control group ($P<0.05$). Specifically, both the sensory and motor nerve conduction velocities in the treatment group showed significant improvement, particularly in the median nerve, ulnar nerve, common peroneal nerve, and tibial nerve. Although the control group also exhibited some degree of improvement in nerve conduction velocity, the enhancement was relatively minor. These results further confirm that the comprehensive traditional Chinese medicine (TCM) regimen has significant efficacy in improving nerve conduction function in patients with diabetic peripheral neuropathy.

4.4 Comparison of blood glucose index changes after intervention in the two groups

After intervention, the fasting blood glucose, 2-hour postprandial blood glucose, and glycated hemoglobin (HbA1c) levels in the study group were significantly reduced compared to pre-intervention levels, with a markedly greater reduction than in the control group. Specific data showed that the fasting blood glucose in the study group decreased from (8.5 ± 1.2) mmol/L to (6.8 ± 0.9) mmol/L, the 2-hour postprandial blood glucose decreased from (12.3 ± 1.8) mmol/L to (8.2 ± 1.1) mmol/L, and the HbA1c decreased from (8.9 ± 1.0)% to (6.7 ± 0.8)%; whereas in the control group, although the corresponding indicators also showed some reduction, the decrease was smaller. This indicates that the comprehensive traditional Chinese medicine (TCM) regimen has significant advantages in improving patients blood glucose parameters.



4.5 Comparison of clinical efficacy between the two groups (total response rate and graded response rate)

The total effective rate of the study group was 92.0%, significantly higher than the 76.0% in the control group. In the stratified efficacy comparison, the study group showed a marked efficacy rate of 56.0%, an effective rate of 36.0%, and a non-effective rate of 8.0%; whereas the control group had a marked efficacy rate of 32.0%, an effective rate of 44.0%, and a non-effective rate of 24.0%. The study group demonstrated significantly superior marked efficacy and total effective rates compared to the control group, further validating the efficacy of the comprehensive traditional Chinese medicine regimen in the treatment of diabetic peripheral neuropathy.

Comparison Table of Treatment Efficacy for Diabetic Peripheral Neuropathy

group	total effective rate	effective yield	effective percentage	inefficiency
Study Group	92.0%	56.0%	36.0%	8.0%
control group	76.0%	32.0%	44.0%	24.0%

5. Discussion

5.1 Analysis of the Rehabilitation Effect of Traditional Chinese Medicine (TCM) Comprehensive Therapy Based on the Spleen–Kidney Correlation Theory on Diabetic Peripheral Neuropathy:

Guided by the Spleen–Kidney Correlation theory, the TCM comprehensive therapy effectively improved patients clinical symptoms and signs through holistic regulation and individualized treatment, promoted the recovery of neural function, and enhanced patients quality of life.

5.2 The Core Value of the Spleen–Kidney Correlation Theory in the Treatment of Diabetic Peripheral Neuropathy:

This theory emphasizes the critical role of the spleen and kidney in the pathogenesis and progression of diabetes and its complications, providing a theoretical basis for comprehensive Traditional Chinese Medicine (TCM) treatment regimens. It guides clinical medication and acupuncture point selection, reflecting the holistic approach and syndrome differentiation principles of TCM therapy.

5.3 Advantages and Characteristics of the Integrated Traditional Chinese Medicine (TCM) Protocol:

The integrated TCM protocol combines various therapeutic modalities such as oral administration of herbal medicine, acupuncture, and tuina (Chinese massage), featuring multi–target, multi–pathway, and synergistic effects. It comprehensively regulates the internal environment of the body and enhances its self–repair capacity, thereby demonstrating unique advantages in the treatment of diabetic peripheral neuropathy.

6. Conclusion

6.1 Summary of Main Research Findings

Guided by the "Spleen–Kidney Correlation" theory, this study developed a comprehensive Traditional Chinese Medicine (TCM) treatment protocol for diabetic peripheral neuropathy (DPN). Results demonstrated that the protocol, combining holistic regulation with individualized therapy, significantly improved patients clinical symptoms and signs, effectively promoted neural function recovery, and consequently enhanced quality of life. This achievement not only validates the core value of the "Spleen–Kidney Correlation" theory in DPN treatment but also highlights the advantages of TCMs multi–target, multi–pathway, and synergistic approach, providing novel insights and methodologies for DPN management.

6.2 Clinical Application Value of Integrated Traditional Chinese Medicine Treatment Based on the Theory of "Spleen–Kidney Correlation"

This therapeutic regimen has demonstrated significant clinical value. On one hand, it is grounded

in the "spleen-kidney correlation" theory, employing a synergistic approach of oral traditional Chinese medicine (TCM), acupuncture, and tuina (Chinese massage therapy) to comprehensively regulate multiple targets and pathways targeting the complex etiology and pathogenesis of diabetic peripheral neuropathy. This effectively alleviates symptoms such as limb numbness, pain, and sensory abnormalities, enhances nerve conduction velocity, and promotes neural functional recovery. On the other hand, the integrated TCM protocol emphasizes individualized treatment, tailoring therapies based on the patients specific condition and constitutional characteristics through syndrome differentiation and treatment, thereby improving therapeutic precision and clinical efficacy while reducing the incidence of complications. Additionally, this regimen offers advantages of minimal side effects and high safety, enhancing patient adherence to treatment and providing a reliable foundation for long-term management of diabetic peripheral neuropathy.

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