

# Application of Acupoint Application Combined with TCM Emotional Nursing in the Nursing Management of Patients with Diabetes Mellitus Complicated with Hypertension

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**Abstract:** **Objective:** To observe the effect of acupoint application combined with Traditional Chinese Medicine (TCM) emotional nursing in patients with diabetes mellitus (DM) complicated with hypertension. **Methods:** A total of 76 patients with DM complicated with hypertension admitted from May 2024 to April 2025 were selected as research subjects and randomly divided into two groups (38 cases in each group: control group and observation group). The control group received routine nursing, while the observation group received acupoint application combined with TCM emotional nursing. Changes in blood glucose, blood pressure, and psychological status were observed and compared between the two groups. **Results:** After nursing, the levels of blood glucose and blood pressure in the observation group were lower than those in the control group ( $P<0.05$ ). The scores of negative psychology in the observation group after nursing were lower than those in the control group ( $P<0.05$ ). **Conclusion:** Acupoint application combined with TCM emotional nursing for patients with DM complicated with hypertension helps reduce patients' blood glucose and blood pressure, and alleviates their daily negative emotions.

**Keywords:** Acupoint Application; TCM Emotional Nursing; Diabetes Mellitus; Hypertension; Nursing Management

## 1. Introduction

Diabetes mellitus complicated with hypertension is the most common chronic disease in clinical practice. It has a long disease course and no radical treatment, so patients need long-term medication to control blood glucose and blood pressure. There are many factors affecting patients' blood glucose and blood pressure, among which the psychological

state is closely related to the management of blood pressure<sup>[1]</sup>. TCM emotional nursing is based on the patient's psychological state to improve their mental state, helping patients face the disease with a correct attitude and optimize their daily self-management behaviors, thereby achieving the goal of controlling blood pressure and blood glucose<sup>[2]</sup>. Acupoint application can improve blood circulation and also plays a role in helping the recovery of patients with DM complicated with hypertension. This study mainly observed the effect of acupoint application combined with TCM emotional nursing in patients with DM complicated with hypertension.

## 2. Materials and Methods

### 2.1 General Data

A total of 76 patients with DM complicated with hypertension admitted from May 2024 to April 2025 were selected as research subjects and randomly divided into two groups (38 cases in each group: control group and observation group). The control group received routine nursing, while the observation group received acupoint application combined with TCM emotional nursing. In the control group, there were 20 males and 18 females, aged 57-74 years, with an average age of  $(62.34\pm1.23)$  years. The disease duration was 3-7 years, with an average of  $(5.33\pm0.34)$  years. In the observation group, there were 21 males and 17 females, aged 58-75 years, with an average age of  $(63.05\pm1.52)$  years. The disease duration was 3-7 years, with an average of  $(5.15\pm0.26)$  years. There was no significant difference in baseline data between the two groups ( $P>0.05$ ).

### 2.2 Methods

The control group received routine nursing during treatment, including guiding patients to take medications strictly as prescribed by

doctors to maintain good medication compliance, providing guidance based on patients' daily eating and living habits to help them maintain healthy behaviors during treatment, and measuring patients' blood glucose and blood pressure in a timely manner to monitor changes in their condition.

The observation group received acupoint application combined with TCM emotional nursing on the basis of routine nursing:

(1) Acupoint application: 10g of Borneol (Bingpian), 20g of Evodia rutaecarpa (Wuzhuyu), 20g of Aconitum carmichaelii (Fuzi), and 100g of fresh Ginger (Shengjiang) were taken, ground into powder or paste, mixed with vinegar to form a paste, and applied to the patient's Yongquan (KI1) acupoint. The application was done once a night, lasting about 7-8 hours.

(2) TCM emotional nursing: Psychological assessment: During communication with patients, nurses comprehensively assessed the patients' psychological state, analyzed the causes of their negative psychology, and formulated TCM emotional intervention plans based on their actual psychological status. Implementation of TCM emotional nursing: Nursing was carried out in accordance with the TCM principle of "five elements overcoming each other" (anger overcomes anxiety, anxiety overcomes fear, fear overcomes joy, joy overcomes sorrow, sorrow overcomes anger). For patients with excessive worry, nurses encouraged them to express their inner concerns and provided encouragement and support to relieve psychological pressure. For patients who were angry or had a negative attitude towards the disease, nurses guided them to engage in activities that brought them joy in daily life, preventing them from focusing excessively on the disease and increasing their psychological burden.

Both groups received nursing intervention for 2

consecutive weeks.

## 2.3 Observation Indicators

(1) Comparison of blood glucose and blood pressure: Before and after nursing, blood glucose (fasting blood glucose, 2-hour postprandial blood glucose) and blood pressure (systolic blood pressure, diastolic blood pressure) were measured in both groups. Blood pressure was measured 3 times consecutively at 5-minute intervals, and the average value was calculated.

(2) Comparison of negative psychological scores (GAD-7 and PHQ-9): The Generalized Anxiety Disorder-7 (GAD-7) scale was used to assess anxiety, with a score range of 0-21 points. The Patient Health Questionnaire-9 (PHQ-9) scale was used to assess depression, with a score range of 0-27 points. Both scales consisted of subjective questions, and patients were guided to answer based on their actual situation. Higher scores indicated more severe negative psychology.

## 2.4 Statistical Methods

Relevant data in the study were analyzed using SPSS 23.0. Measurement data (including negative psychology scores, blood glucose, and blood pressure) were expressed as mean $\pm$ standard deviation ( $\bar{x}\pm s$ ) and tested by t-test. Enumeration data were expressed as percentages (%) and tested by chi-square test. A P value  $<0.05$  was considered statistically significant.

## 3. Results

### 3.1 Comparison of Blood Glucose and Blood Pressure

After nursing, the levels of blood glucose and blood pressure in the observation group were lower than those in the control group ( $P<0.05$ ), as shown in Table 1.

**Table 1. Comparison of Blood Glucose and Blood Pressure Between the Two Groups ( $\bar{x}\pm s$ )**

Group	Number of Cases	Fasting Blood Glucose (mmol/L)		2-hour Postprandial Blood Glucose (mmol/L)		Systolic Blood Pressure (mmHg)		Diastolic Blood Pressure (mmHg)	
		Before Nursing	After Nursing	Before Nursing	After Nursing	Before Nursing	After Nursing	Before Nursing	After Nursing
Observation	38	9.22 $\pm$ 0.25	6.15 $\pm$ 0.38	11.05 $\pm$ 1.45	7.11 $\pm$ 1.23	145.05 $\pm$ 2.15	120.74 $\pm$ 2.15	100.85 $\pm$ 2.41	84.15 $\pm$ 2.45
Control	38	9.23 $\pm$ 0.32	7.54 $\pm$ 0.45	11.11 $\pm$ 1.74	11.35 $\pm$ 1.85	144.45 $\pm$ 2.45	131.65 $\pm$ 2.25	100.45 $\pm$ 2.33	92.35 $\pm$ 2.22
t	-	0.254	21.425	0.352	22.245	1.264	25.425	0.725	26.425
P	-	0.245	0.000	0.900	0.000	0.177	$<0.001$	0.624	$<0.001$

### Status

After nursing, the GAD-7 and PHQ-9 scores of

### 3.2 Comparison of Patients' Psychological

the observation group were lower than those of the control group ( $P < 0.05$ ), as shown in Table 2.

**Table 2. Comparison of GAD-7 and PHQ-9 Scores Between the Two Groups ( $\bar{x} \pm s$ )**

Group	Number of Cases	GAD-7 Score		PHQ-9 Score	
		Before Nursing	After Nursing	Before Nursing	After Nursing
Observation	38	17.25 $\pm$ 1.34	7.15 $\pm$ 1.34	16.05 $\pm$ 1.35	6.05 $\pm$ 1.34
Control	38	17.11 $\pm$ 1.25	11.05 $\pm$ 1.16	16.13 $\pm$ 1.24	12.11 $\pm$ 1.25
t	-	0.257	21.425	0.678	21.425
P	-	0.825	<0.001	0.911	<0.001

#### 4. Discussion

Diabetes mellitus complicated with hypertension is a major chronic disease affecting the health of middle-aged and elderly people. It has the characteristic of progressive development. If patients' blood glucose and blood pressure are not effectively managed, the continuous progression of the disease may cause more serious harm to patients' health and even increase the risk of cardiovascular diseases<sup>[3]</sup>.

Acupoint application is widely used in the treatment of patients with hypertension and DM. In TCM theory, DM complicated with hypertension is classified into the categories of "dizziness" (xuan yun) and "consumptive thirst" (xiao ke). Selecting drugs with the effects of promoting blood circulation, regulating qi, replenishing qi, and generating body fluid to apply to the Yongquan (KI1) acupoint can relax tendons, activate blood circulation, balance yin and yang, and strengthen the body to eliminate pathogenic factors, thereby improving the patient's condition<sup>[4]</sup>. TCM emotional nursing aims to provide targeted emotional guidance based on the patient's emotional state, which helps alleviate negative emotions and enables patients to maintain a positive and optimistic attitude during treatment<sup>[5]</sup>. In this study, after nursing, the blood pressure and blood glucose of the observation group were lower than those of the control group, and the negative emotion scores were also lower than those of the control group. This indicates that this nursing model helps reduce patients' blood pressure, improve their psychological state, and contribute to their recovery.

In conclusion, acupoint application combined with TCM emotional nursing can be applied in the nursing management of patients with DM complicated with hypertension to reduce their

blood pressure and blood glucose and alleviate their negative emotions.

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