

# Professor PEI Ruixia's Experience of Harmonizing in the Treatment of Diabetes Mellitus and Its Complications

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**Abstract:** *Diabetes mellitus and its complications, as one of the current challenges in clinical treatment, treated by traditional Chinese medicine with the advantages of individualization and targeting. This paper elaborates on Prof. Pei Ruixia's experience in analyzing the etiology and treatment of diabetes mellitus and its complications based on theories of traditional Chinese medicine (TCM). Prof. Pei believes that abnormal liver function is the core cause of diabetes and its complications. The "Harmonizing" is advocated throughout the treatment. The overall treatment is based on the basic idea of "reconciling Shaoyang and harmonizing yin and yang", with calm medication and a comprehensive approach.*

**Keywords:** Diabetes mellitus, Diabetic complications, and method, PEI Ruixia.

## 1. Introduction

Diabetes mellitus (DM) is a group of clinically common endocrine metabolic diseases characterized by elevated blood glucose levels, and is one of the prominent international public health events with the fastest growing global prevalence in the 21st century [1]. In Chinese medicine, it belongs to the category of "wasting- thirst" and "the spleen-warm syndrome" [2]. With the prolongation of the duration of diabetes mellitus, poor glycemic control due to lifestyle habits and their own reasons, the biggest threats to patients come from their multiple complications, such as diabetic peripheral neuropathy, diabetic retinopathy, diabetes mellitus secondary to depression, etc., which are the most important reasons for patients' disability and death, and reduce the quality of patients' survival at the same time, and also pose a great threat to their life and property safety [3].

Modern medicine mostly adopts the traditional way of controlling metabolic disorders (controlling blood glucose, blood pressure, regulating blood lipids) in order to slow down the development of multiple complications, whose treatment is characterized by large individual differences in efficacy and long-term susceptibility to a variety of adverse reactions [4]. In comparison, Chinese medicine has greater advantages and potential for the prevention and treatment of DM and its complications. Chinese medicine through the regulation of glucose metabolism disorders, gentle lowering of glucose at the same time, multi-targeted integrated to improve and coordinate the function of the internal organs, the symptomatic and fundamental treatment, and the healing process is good.

Prof. Pei Ruixia is a famous traditional Chinese medicine practitioner in Shaanxi Province, the director of the Department of Endocrinology of Xi'an Hospital of Traditional Chinese Medicine, the successor of the second batch of national famous old traditional Chinese medicine practitioners in terms of academic experience, and the representative successor of the fourth generation of the Gao's

internal medicine school in Qin Jin, and she has studied under the first National Famous Traditional Chinese Medicine practitioner, Prof. Gao Shanglin. Pei Ruixia has been engaged in endocrine clinical and scientific research work for more than 30 years, has rich experience and understanding of Chinese medicine in the treatment of diabetes and its complications, inherited Gao Lao's "human body is out of harmony, a hundred diseases from birth" academic thought, He advocates the use of Chinese medicine "Harmonizing" theory to treat this disease, and the effect is remarkable.

## 2. Interpretation of "Harmonizing" in TCM

The "Harmonizing" is known as the general principle of the Eight Methods, the core of which is to restore the body's pathological state to a "balance of yin and yang". In the Inner Canon of Huangdi, it is written that "by adapting to the changes of yin and yang in heaven and earth, one can nourish the body in accordance with the way of nature", and it is believed that yin and yang peace and harmony is the most desirable state of the organism. Cheng Zhongling put forward the method of harmony as one of the "Eight Methods of Curing Diseases" in his "Comprehension of Medicine". There is a broader and narrower definition of "Harmonizing". The "broad Harmonizing" includes all treatments that harmonize yin and yang, internal organs, Ying and Wei, and qi and blood. The "narrow Harmonizing" refers to the method of mediating the Shaoyang meridian. According to the Inner Canon of Huangdi, "the sun is open, yangming is closed, and the shaoyang meridian is the pivot", the shaoyang meridian has a pivotal role and is able to operate the whole body's qi, which emphasizes the importance of the shaoyang meridian in the operation of the human body's qi, blood, yin and yang [5-6]. Prof. Pei Ruixia, in the course of treatment, takes the method of harmony and reconciles the Shaoyang meridian, harmonizes the function of liver and spleen, harmonizes the liver and stomach, etc. Prof. Pei Ruixia, in the process of treatment, takes the method of reconciliation and Shaoyang, reconciling the liver and spleen, reconciling the liver and stomach, etc., to reconcile the pathogens between skin and

internal organs with Harmonizing, and mixes all kinds of medicines according to the symptom in order to harmonize the human body's functions, so as to achieve the therapeutic purpose of "Harmonizing", and finally make the organism return to the state of natural equilibrium.

### 3. Chinese Medicine's Understanding of Diabetes and Its Complications

Diabetes mellitus belongs to the category of "wasting- thirst" in Chinese medicine, and the name of the disease "wasting-thirst" first appeared in the "Inner Canon of Huangdi" [7]. The cause of the disease has been recorded in the Inner Canon of Huangdi: "The weakness of the five viscera, thick and greasy diet, six external influences and emotional discomfort and other factors can lead to the occurrence of the disease of wasting- thirst." Most medical doctors believe that the development of wasting- thirst is closely related to the abnormal function of the kidney, spleen, liver, lungs and other organs [8]. Complications of wasting- thirst disease, in contrast, most often appear in the middle and end stages of the disease, middle and lower wasting, with malfunctioning of the spleen and kidneys as the main cause. The spleen is the main transportation of water and fluid, the kidney governing water, spleen and kidney deficiency, over time, leading to the pathogens gathering kidney, damage to the kidney's function and the emergence of dysuria and vomiting, edema, Chinese medicine is called "wasting-thirst disease nephropathy" that is, diabetic nephropathy; Kidneys store essence, liver stores blood, essence and blood have the same Origin, the deficiency of kidney essence and liver blood is insufficient to moisten the eyes, so the vision is dim and faint, and there is "wasting-thirst and eye disease" that is diabetic retinopathy; Liver store the blood and master tendon, kidney essence deficiency, insufficient essence and blood, the tendon is not moistened, the spleen is the master of the limbs and muscles, spleen and the spleen's function deficiency, muscle loss of nourishment, so the limbs are numb, impotence and weakness, "wasting-thirst paralysis" that is, diabetic peripheral neuropathy[9]; Spleen qi deficiency, the qi and yin are injured, the liver is belongs to wood, the spleen is the belongs to earth, The wood restricting the earth, spleen's earth insufficiency, lead the liver wood restricting earth overly, the spleen and stomach for the pivotal point of the qi lifting and lowering and the liver for the pivotal point of the qi excretion and discharge of qi, the malfunction of the liver and spleen, qi stagnation is not fluent, then the emotional disorders, moods are low, the emergence of the depressive symptoms, that is, diabetes mellitus combined with depression.

### 4. Experience in Treating Diseases Related to the "Harmonizing"

#### 4.1 The "Harmonizing" to treating "wasting-Thirst".

##### 4.1.1 Etiology

Prof. Pei has unique insights in the treatment of difficult internal medicine, especially good at diagnosis and treatment of diabetes mellitus and its acute and chronic complications, breaking through the traditional three parts of the dialectical treatment, put forward a new treatment idea, the use of "and

method" to regulate the qi and harmonize the internal organs, the efficacy of the treatment is very good [10]. Prof. Pei believed that the occurrence of wasting-thirst disease is closely related to the disorder of liver qi and the internal depression of liver qi which turns into fire, and clearly pointed out the position of liver in the pathogenesis of wasting-thirst disease. The liver is a "Resolute viscus", but it is the main reservoir of blood, so its attribute is yang but uses yin. Deficiency of liver blood can easily lead to Yin deficiency and internal heat. Liver prefers to be regulated and hates to be depressed, and when liver qi is not released, it will turn into heat. Heat injures the body fluid and depletes the qi, resulting in internal heat and deficiency of qi and yin, which further leads to the development of wasting-Thirst Disorder.

##### 4.1.2 Experience in treatment

Mr. Pei believes that the treatment of diabetes should be closely linked to the disease mechanism, to seize the important link of liver depression and spleen deficiency, so the method of liver detoxification and spleen strengthening is used, often used in the addition and subtraction of the Xiao-YAO powder. The specific medications are as follows: Chai Hu in vinegar 10 g, Angelica Sinensis 15 g, Radix Paeoniae Alba 15 g, Rhizoma Atractylodis Macrocephalae 15 g, Radix et Rhizoma Glycyrrhizae 6 g, Poria 15 g, Radix et Rhizoma Zizoma 15 g, Rhizoma Polygonati Odorati 10 g, Rhizoma Atractylodis Macrocephalae 10 g, Radix et Rhizoma Polygonati Odorati 6 g, Rhizoma Rehmanniae Glutinosa 12 g, Radix et Rhizoma Ginseng 20 g. Based on this formula, Prof. Pei will argue the specific cold, heat, deficiency and solidity of the disease to further add or subtract medicines. Meanwhile, Mr. Pei emphasizes in the selection of medicines that the products selected for liver detoxification should not be harsh and fierce, so as to avoid excessive dryness and injure the yin of the liver, as well as to avoid the nourishment and grease things obstruct the stomach.

### 4.2 The "Harmonizing" for the Treatment of "Wasting-Thirst Paralysis"

Professor Pei believes that the onset of thirst paralysis is closely related to the liver. On the one hand, the liver has the function of excretion, excretion of the whole body qi, promote the operation of qi, blood and fluid, the excretion function of the liver is normal, qi smooth, qi and blood and adjust the meridians and fluent. The liver's excretory function is not normal, the blood and blood congestion meridians and internal organs, or the impulse reversal of the lungs and spleen, resulting in the lung's function of governing water metabolism and the spleen and stomach's function of transportation and acceptance occur dysfunction, qi, blood and essence can not be dispersed to moisturize the skin and coupled with the accumulation of disease in the limbs and bones.

On the other hand, The liver is a "Resolute viscus", but it is the main reservoir of blood, so its attribute is yang but uses yin. On the other hand, the liver is just viscera but the main blood, body Yin and Yang, when the human body activities, the blood stored in the liver to the periphery of the body to meet the needs of physiological activities, The "Plain question" recorded "foot to obtain blood nutrition and can walk. However, in the state of wasting-thirst disease, Yin and blood

have long been deficient, after the accumulation of time, the body into heat and fire, invasion of the meridians and internal organs, the Yin fire torment fluid, refining fluid into phlegm, burning blood into stasis, phlegm and stasis paralysis blockage of qi and blood, the cycle of cause and effect, so that the condition of step by step aggravated, prompting the occurrence of wasting- thirst paralysis.

#### 4.2.2 Experience in treatment

Prof. Pei believes that wasting-thirst paralysis is also due to the dysfunction of the liver, and then with the other organs and functions of the disease, so in the treatment always emphasize the principle of "balance and harmony". balance and harmony is not only embodied in the small amount of medicine, but also refers to the peaceful nature of the medicine, no harsh and fierce medicine. There are four reasons: a preventive viscera function is weak, large doses of tonic is difficult to transport, easy to cause congestion in the viscera and aggravate the condition; two to wasting-thirst paralysis disease for a long time, the disease in the internal, a small dose of tonic can be made to restore the circulation of the normal qi and blood, the positive is back and the pathogens eliminated; the third is wasting-thirst paralysis is a incurble disease, need to take medication for a long time, viscera is weak, intolerant of attack and attack, the nature of the taste of the small dose of tonic is more conducive to the long-term use, of the fourth reason, wasting- thirst paralysis evidence of the disease mechanism is complicated and not pure, the deficiency and reality of each other, cold and heat coexist, so the prescription of drugs are often in accordance with the primary and secondary reasons, with appropriate combinations [11]. In terms of medication, Prof. Pei often treats the disease from two aspects of deficiency and reality in clinical treatment. there are two aspects about demonstration situation: liver-qi stagnation and liver-qi upward invasion of the lungs, and the medicines used mostly emphasize on liver-sparing and qi regulating medicines. Four-NI powder, Xiao Chaihu soup, and Chaihu Liver-Sparing Powder are often used as the basic formula, often with Chaihu as the main focus, which is used to disperse the liver and circulate qi, supplemented by liver-dispersing and qi regulating drugs such as vinegar tulip gold, vinegar Xiangshu, neem, etc., and regulating drugs for the middle jiao qi such as Chenpi, Hovenia, half-sia, and ginger, and adjuvant to help the lungs to promote and purify qi, such as bitter almonds, perilla, thick park and rhubarb in wine, etc;

There are two types of deficiency situation: liver-blood deficiency and spleen-stomach-qi deficiency [12]. Classical formulas such as Paeonia lactiflora and Licorice soup, Four herbs soup, and Xiao-Yao powder are commonly used as basic formulas. According to the specific etiology of the different nature of the disease, with the addition and subtraction, supplemented the blood to nourishing the liver to make it softer, such as white peony, angelica, danshen, ripened earth, etc. spleen and stomach qi deficiency supplemented with atracylodes macrocephala, astragalus, yam, poria, etc. Among them, Chaihu and Paeonia lactiflora are often used as a combination, and the dosage of the drugs is determined according to the priority of the disease, thus exerting different therapeutic effects.

## 5. Conclusion and Perspectives

At present, the occurrence of diabetes mellitus has become a factor that seriously affects the quality of human existence, and Western medicine lacks individualization and targeting of its treatment to effectively control its complications and associated symptoms. The knowledge and theories of diabetes mellitus are well documented in Chinese medicine, which provides a large number of theoretical basis for the treatment of diabetes mellitus in Chinese medicine. Based on solid theoretical foundation and many years of clinical experience, Pei Ruixia started from the theory of " Harmonizing ", based on the characteristics of the lesions, the treatment is based on evidence, the use of drugs is calm and conciliatory, the combination is streamlined, comprehensive and balanced, and the emphasis is on the "balance of yin and yang" of the organism, and the secondary symptoms of the patients are taken into consideration while the treatment of the disease itself is targeted. In addition to treating the disease itself, it also takes into account the secondary symptoms of the patients, effectively prevents the occurrence and development of complications, and provides a new way of thinking for the treatment of diabetes mellitus and its complications by traditional Chinese medicine.

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