

Diabetes and Chinese Medicine

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Diabetes is a common endocrine metabolic disease where the blood sugar level is higher than normal. It affects 1.6 million people in the U.K. There are 2 main types of diabetes, namely Type 1 diabetes that is usually seen in younger people; and Type 2 diabetes which tends to affect adults over 40 years old and overweight people. Additionally, there are also other types of diabetes, such as pregnancy diabetes (gestational diabetes) that is associated with pregnancy and will automatically return to normal after birth; and secondary diabetes which is caused by another disease such as inflammation of the pancreas, or due to some medicines such as diuretics or steroids. Clinically, there may be no symptoms at the early stage, but gradually patients may have polyphagia, polydipsia, polyuria, susceptibility to hunger, and emaciation. In severe cases, ketoacidosis and hyperosmotic nonketonic coma may occur. Diabetes often has some complications, such as infections, tuberculosis, atherosclerosis, cataract, myocardial infarction, etc.

In traditional Chinese medicine (TCM), it is named 'Xiao Ke' (which also means diabetes). TCM has a long rich history in understanding and treating diabetes with herbal medicine and acupuncture. For example, in Chapter 13 of *Syndrome Differentiation and Treatments of Diabetes, Polyuria and Urinary Stuttering*, of the book *Jin Kui Yao Lue (Synopsis of Prescriptions of the Golden Chamber)*, a part of *Shanghanlun (Treatise on Febrile and Miscellaneous Diseases)*, written by a famous TCM Dr. Zhang Zhong-jing in the Han Dynasty (3rd century A.D.), he said that 'polydipsia and polyuria occur in men who excrete urine equal to the volume of water drunken and these patients should be treated primarily with Shen Qi Wan (Kidney-qi Herbal Pills). Today we have a lot of different herbal recipes and products for treating diabetes. According to our clinical experiences, if your TCM diagnosis is accurate and the choice of recipe is appropriate, most patients will respond well to your therapies.

Aetiology and Pathology

As you know, insulin is a hormone produced by the pancreas gland which can control the use of glucose within the body. If the pancreas produces too less insulin or no insulin, the blood sugar level will rise and thus, cause Type 1 diabetes; while if the pancreas produces insulin but it is inadequate for the body's needs and has reduced effect. This will cause Type 2 diabetes. Some scholars believe that Type 1 diabetes should be regarded as an autoimmune disease because the body's immune system attacks the cells of the pancreas which produce insulin. While, Type 2 diabetes is believed to have a strong genetic factor that occurs in the family. Several genes have been found that may

be associated with Type 2 diabetes. Additionally, there are many risk factors which may develop or lead to Type 2 diabetes, such as hormone disorder, hypertension, high blood triglyceride level, high fat diet, high alcohol intake, sedentary lifestyle, obesity or remaining overweight. Generally speaking, overweight mothers are more likely to develop problems associated with insulin resistance.

In TCM theory, diabetes can be caused by many factors. Some examples of causing factors are: 1) Congenital yin-deficiency that leads to dryness and heat in the lung, stomach and kidney; 2) High alcohol intake, eating too much fat, grease or sweet foods which may lead to accumulation of dryness and heat in the stomach and lung; 3) Emotional disorders that can cause stagnation of qi and develop into fire, dryness and heat in the body; or 4) Overstrain and excessive sexual activities which may cause yin-deficiency of the kidney, dryness-heat of the stomach and lung. From these factors we can summarize the basic aetiology and pathology of diabetes into two aspects: yin-deficiency and dryness-heat in the body. Furthermore, dryness and heat occurring in the lung, marked by polydipsia, is called Shang Xiao (upper diabetes) in TCM; occurring in the stomach, marked by polyphagia, is termed Zhong Xiao (middle diabetes); and occurring in the kidney, marked by polyuria, is named Xia Xiao (lower diabetes).

Common Types in Chinese Medicine

1. Dryness-heat in the lung (Shang Xiao-upper diabetes): The patient suffers mainly from polydipsia, thirsty right after drinking water, accompanied with restlessness, dry tongue and mouth, polyphagia and polyuria, red tongue with yellowish fur, slippery and rapid pulse.
2. Dryness-heat in the stomach (Zhong Xiao-middle diabetes): The patient mainly has polyphagia with susceptibility to hunger, accompanied by emaciation, dry mouth, thirsty, constipation, polyuria, red tongue with dry and yellow fur, slippery, solid and forceful pulse.
3. Deficiency of the kidney-yin (Xia Xiao-lower diabetes): The patient mainly manifests as polyuria with turbid urine, accompanied with soreness and weakness in the loins, scanty red and sticky menorrhea, dry mouth and lips, emaciation, dysphoria with feverish sensation in the chest, palms and soles, red tongue with little fur, and deep, thready and rapid pulse.
4. Deficiency of qi and yin: The patient feels dry mouth and throat without obvious polydipsia, polyphagia and polyuria, marked by fatigue, short breath, spontaneous sweating, night sweating, feverish sensation of the chest, palms and soles, insomnia, disturbed dreams, constipation, scanty dark yellow urine, red tongue with less saliva and thin fur or geographic tongue, and thready, weak and rapid pulse.

5. Deficiency of yin and yang: The patient mainly complains of frequent urination with turbid discharge, urinating same amount of water as drunken, sore and weak loins and knees, impotence, irregular menstruation, aversion to coldness, pale tongue with white fur, and deep thready and weak pulse.

Diagnosis in Western Medicine

1. Symptoms: The onset is slow, the typical symptoms of diabetes are polyphagia, polydipsia, polyuria and weight loss, or accompanied with tiredness, itching especially around the genitals, recurrent infections on the skin, such as boils; numbness of limbs, disturbance of extremities, blurred vision, impotence, irregular menstruation, etc. The patients with type 1 diabetes usually develop these symptoms within days or weeks; while the patients with type 2 diabetes often do not show the above symptoms for years. Many patients are diagnosed just by chance through routine medical check-ups.
2. Complications: The most important complications include diabetic ketoacidosis, cardiovascular diseases, diabetic nephropathy and peripheral neuropathy, etc. Clinically, cardiovascular complications are main causes of death.
3. Laboratory tests: Random glucose test is taken at random times on 2 occasions, any figure above 11.1mmol/l is a diagnosis of diabetes; Fasting glucose test is measured after an overnight fast and on 2 different days, if above 7.0mmol/l is a diagnosis of diabetes. If the diagnosis is still unclear from the above tests, a glucose tolerance test can be carried out. A two-hour blood glucose level above 11.1/l is a diagnosis of diabetes; a level below 7.8 mmol /l is normal.
4. Other tests, such as insulin determination, insulin released haemoglobin test, serum C-peptide determination, glycosylated haemoglobin determination, ketonuria test and urinometry may be helpful to the diagnosis of diabetes.

Treatments in Chinese Medicine

1. Body acupuncture

Basic acupoints:

Weiwanxiashu (Ex-B3)

Geshu (B 17)

Feishu (B13)

Pishu (B 20)

Shenshu (B 23)

Sanyinjiao (Sp 6)

Supplementary points:

For the pattern of dryness-heat in the lung, add Lianquan (Ren 23), Chengjiang (Ren 24), and Xinshu (B15).

For dryness-heat in the stomach, add Weishu (B 21), Neiting (St 44) and Zhongwan (Ren 12).

For deficiency of the kidney-yin, add Taixi (K 3), Shuiquan (K 5) and Zhaohai (K 6).

For deficiency of qi and yin, add Qihai (Ren 6), Zusanli (St 36) and Taixi (K 3).

For deficiency of yin and yang, add Zhaohai (K 6), Mingmen (Du 4) and Baihui (Du 20).

Method: Use the filiform needles to puncture the acupoints selected. For the patients with dryness-heat in the lung, and dryness-heat in the stomach, the reducing method should be chosen; while for the patients with deficiency of the kidney-yin, deficiency of qi and yin, and deficiency of yin and yang, the reinforcing and even movement methods should be used according to each patient's special condition. For most patients, the needles can be retained for 25-30 minutes, 1-2 sessions a week, and continued for 2-3 months.

Note: The acupoint Weiwanshu (Ex-B3), a key point for treating diabetes, is located at 1.5cun lateral the lower border of the spinous process of the 8th thoracic vertebra. A filiform needle should be inserted 0.5-0.8 cun into the acupoint obliquely towards the spinal column with the reinforcing method.

2. Ear acupuncture:

Ear points: Pt. Pancreas and Biliary Tract (Pancreas –left; Biliary Tract-right), Pt. Endocrine, Pt. Lung, Pt. Stomach, Pt. Kidney, Pt. Bladder, Pt. Hunger and Thirsty.

Method: The auricular-seed-pressing method can be applied on 3-6 ear points each time, replaced every 5 days.

3. Herbal therapy

(1) Dryness-heat in the lung

Therapeutic principle: Clearing away heat and moistening the lung to treat polydipsia.

Recipe: Modified Xiao Ke Fang/Decoction.

Ingredients:

Shengdihuang (Radix rehmanniae) 15g

Maimendong (Radix ophiopogonis) 10g

Shashen (Radix glehniae) 10g

Tianmendong (Radix asparagi) 10g

Zhimu (Rhizoma anemarrhenae) 9g
Tianhuafen (Radix trichosanthis) 10g
Huanglian (Rhizoma coptidis) 9g
Gegen (Radix puerariae) 15g
Taizishen (Radix pseudostellariae) 6g

Administration: All the above herbs should be first soaked in a pot of water for 2 hours, and then boiled in the pot over a fire for 25-30 minutes. Finally, strain the herbal liquid from the boiled herbs to obtain the decoction for oral use. Drink half in the morning and the other half in the evening.

(2) Dryness-heat in the stomach

Therapeutic principle: Clearing away heat and moistening dryness in the stomach to treat polyphagia.

Recipe: Modified Yunu Jian/Decoction.

Ingredients:

Shengshigao (Cypsum fibrosum) 15g, (can be decocted earlier than others)
Zhimu (Rhizoma anemarrhenae) 9g
Shengdihuang (Radix rehmanniae) 15g
Maimendong (Radix ophiopogonis) 10g
Zhizi (Fructus gardeniae) 9g
Niuxi (Radix achyranthis) 6g
Huanglian (Rhizoma coptidis) 9g
Zhidahuang (Radix et rhizoma rhei praeparatae) 3g

Administration: All the above herbs should first be soaked in a pot of water for 2 hours or more, and then boiled in the pot over a fire for 25-30 minutes. Finally, strain the herbal liquid from the boiled herbs to obtain the decoction for oral use. Drink half in the morning and the other half in the evening.

(3) Deficiency of the kidney-yin

Therapeutic principle: Nourishing the kidney-yin to treat polyuria.

Recipe: Modified Liu Wei Dihuang Wan/Decoction.

Ingredients:

Shengdihuang (Radix rehmanniae) 15g
Shanzhuyu (Fructus corni) 10g
Gouqizi (Fructus dioscoreae) 10g

Shanyao (Rhizoma dioscoreae) 9g
Fuling (Poria) 6g
Zexie (Rhizoma alismatis) 6g
Zhimu (Rhizoma anemarrhenae) 10g

Administration: All the above herbs should first be soaked in a pot of water for 2 hours or more, and then boiled in the pot over a fire for 25-30 minutes. Finally, strain the herbal liquid from the boiled herbs to obtain the decoction for oral use. Drink half in the morning and the other half in the evening.

(4) Deficiency of qi and yin

Therapeutic principle: Replenishing qi and nourishing yin to treat diabetes.

Recipe: Modified Sheng Mai San/Decoction and Zeng Ye Tang/ Decoction.

Ingredients:

Taizishen (Radix pseudostellariae) 9g
Shengdihuang (Radix rehmanniae) 15g
Xuansheng (Radix scrophulariae) 10g
Maimendong (Radix ophiopogonis) 10g
Wuweizi (Fructus schisandrae) 9g
Gegen (Radix puerariae) 15g
Tianhuafen (Radix trichosanthis) 15g
Baishaoyao (Radix paeoniae alba) 9g
Huangjing (Rhizoma polygonati) 10g
Huangqi (Radix astragali) 15g

Administration: All the above herbs should first be soaked in a pot of water for 2 hours or more, and then boiled in the pot over a fire for 25-30 minutes. Finally, strain the herbal liquid from the boiled herbs to obtain the decoction for oral use. Drink half in the morning and the other half in the evening.

(5) Deficiency of yin and yang

Therapeutic principle: Nourishing yin and tonifying yang to treat diabetes.

Recipe: Modified Jingui Shen Qi Wan/Decoction.

Ingredients:

Rougui (Cortex cinnamomi) 6g
Shudihuang (Radix rehmanniae praeparatae) 10g
Zexie (Rhizoma alismatis) 6g

Fuling (Poria) 6g
Jinyingzi (Fructus rosae laevigatae) 9g
Gouqizi (Fructus lycii) 9g
Yizhiren (Fructus alpiniae oxyphyllae) 10g

Administration: All the above herbs should be first soaked in a pot of water for 2 hours or more, and then boiled in the pot over a fire for 40-60 minutes. Finally, strain the herbal liquid from the boiled herbs to obtain the decoction for oral use. Drink half in the morning and the other half in the evening.

You can find the above herbs in our Everwell Clinic.

Lifestyle and Dietary Advice

1. If you already have diabetes, you should eat a consistent, well-balanced diet that is high in fibers, low in saturated fat, and low in concentrated sweets. Basically, you should follow the diet list prescribed by your G.P. or a diabetes specialist that is specific to your particular condition.
2. You should do regular gentle exercises, such as 20 minutes of walking 3-6 times a week, or practice Taiji, Qigong and other light activities. Any of exercises can help you to reduce the risk of developing diabetes and the complications of diabetes, such as coronary heart disease, stroke, kidney failure, blindness, and leg ulcer.
3. You should moderate or stop drinking alcohol as soon as possible, as excessive alcohol use is one of risk factors for Type 2 diabetes, and can also cause low or high blood sugar levels, neuritis and an increase in triglycerides.
4. If you are a smoker, you should quit as early as possible, because smoking can raise the risk of complications of diabetes, damage the blood vessels, contribute to heart disease, stroke and poor circulation in the limbs that may lead to peripheral neuritis and acro-ischemia, or even acromelic gangrene.
5. You should check your blood sugar level regularly at least before meals and before bedtime, and also record the results in a logbook to share with your doctors. Today there are many new techniques and equipments for testing blood sugar level that can be less painful and complicated. Your insurance company may supply such equipments.

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