

Treatment of Diabetes Complicated with Depression from Liver and Lien

Tingwei He^{1,a}, Wenmin Wang^{1,b}, Ruiqin Li^{1,c}, Zongliang Song^{2,d,*}

¹*Shaanxi University of Traditional Chinese Medicine, Xianyang, 712046, Shaanxi Province, China*

²*Affiliated Hospital of Shaanxi University of Chinese Medicine, Xianyang, 712000, Shaanxi Province, China*

^a1404401408@qq.com, ^b1337619978@qq.com, ^c791789314@qq.com, ^dsongzongliang018@163.com

m

*Corresponding author

Keywords: Diabetes, Depression, Liver, Spleen

Abstract: Diabetes with depression belongs to the category of “consumptive thirst” and “depression syndrome” in traditional medicine. Modern medicine treatment is limited, often only for a specific target, the curative effect is not very obvious. Traditional medicine pays attention to holistic view and dialectical treatment in treatment, which makes up for the deficiency of modern medical treatment to some extent. Traditional medicine has a unique view on this. It is believed that the occurrence of this disease is mostly related to the imbalance of liver and spleen. Based on Xiaoyao Powder, it is flexible to add and subtract according to the syndrome, so that the liver-spleen qi movement is reversed, and various symptoms are relieved. For clinical, curative effect is good, for the treatment and research of this disease for a new way and ideas.

Diabetes is a metabolic disease characterized by continuous increase of chronic blood glucose caused by deficiency of insulin secretion and / or insulin action under the combined action of genetic and environmental factors. There is a two-way relationship between diabetes and depression. Diabetes will increase the occurrence of depression, and depression will also increase the risk of diabetes. ' Guideline for the prevention and treatment of type 2 diabetes in China (2020 edition) ' [1] points out that the risk of depression in diabetics is twice as high as that in normal people. So far, modern medicine for diabetes with depression treatment is mainly antidepressant drugs, if long-term use may appear glucose metabolism disorders and other issues, thereby aggravating the disease[2]. Traditional medicine has unique insights on the treatment of this disease, and its clinical efficacy and safety are better than those of modern medicine, which has certain advantages. Traditional medicine believes that diabetes with depression is a combined disease of “consumptive thirst”and “depression syndrome”. The two are closely related and mutually causal. Most scholars believe [3]that the common pathogenesis of the two is liver depression and spleen deficiency. So from the liver and spleen, the clinical curative effect is quite good.

1. Liver Depression and Spleen Deficiency is the Key Pathogenesis

The etiology and pathogenesis of the combined disease of “consumptive thirst” and “depression syndrome” are not recorded in ancient medical books, but there are similarities between the two pathogenesis. The key to pathogenesis is liver depression and spleen deficiency. 'Lingshu · Benzang' said: “Liver crisp disease is easy to hurt.” The occurrence of diabetes is closely related to liver. If the liver is lost in the catharsis, the qi movement will be lost in the regulation, the qi, blood and fluid will be lost in the distribution, the fluid will be refined into phlegm and changed into heat with the passage of time. Then the patients will experience dry mouth and polydipsia. Liver stagnation and spleen deficiency hurt stomach yin. Then the patients will become hunger and eat more. If it hurts kidney yin, the kidney will lose the power of opening and closing. Then the patients will become polyuria. ‘Pivot-Five changes’ cloud: “Anger leads to upper qi inversion, chest accumulation, blood gas retention, and hip skin muscle filling. Blood vessels do not work, and turn to heat. Heat dissipates skin, so it is Xiaodan”. Emotional factors are not only an important factor in the occurrence of diabetes, but also lead to aggravation of the disease. ‘Yibian·Yu’: “Yu is not comfortable, and it is all liver-wood disease”. Depression syndrome is a disease, mostly emotional injury, emotional and liver are closely related. The liver loses the catharsis, the spleen loses the healthy transportation, the spirit loses the maintenance, the viscera qi, blood, yin and yang disorders, then the mood is depressed.

‘Clinical Guide Medical Case·Triple diabetes’: “Depression, spontaneous combustion of internal fire is a major disease.” The combined diseases of “consumptive thirst” and “depression syndrome” often interact with each other, which will further aggravate the progress of the disease and form a vicious circle. Consumptive thirst lasted for a long time, yin damage to yang, viscera function disorder, combined with diabetes patients with prolonged course of disease, excessive thinking, liver qi is not comfortable, stagnation in the inside, reverse the spleen, qi and blood disorders, mental disorders, aggravate depression syndrome[4]. The function of liver governing dispersion is normal, so as to smooth the body qi movement and emotional activities, and promote spleen ascending and stomach descending. Long-term depression syndrome, emotional injury, qi stagnation, depression and heat, consume body-fluid and gas; the liver loses the catharsis, the middle energizer loses the healthy transportation, water-fluid stays and gathers, the phlegm turbidity endogenous, the depression and the heat, the transformation dryness hurts the body-fluid, aggravates the diabetes and so on. Professor Tong Xiaolin believed [5] that the main pathogenesis of “consumptive thirst” in the early stage was depression. Based on Mr. Danxi’s theory of six depressions, he proposed the theory of six depressions. Depression is mainly liver depression. Liver qi movement is not smooth, involving the spleen and stomach transportation and lifting, accelerates the progress of diabetes. Patients with depression syndrome are in a state of negative emotions for a long time, and their body qi is not smooth, which is more likely to cause endocrine dysfunction, reduce insulin level of insulin in the body, increase the level of blood glucose, and further aggravate diabetes[6].

2. Treatment Should Soothe Liver and Regulate Qi, Invigorating Spleen and Tranquilizing Mind

Traditional medicine has unique advantages in the treatment of this disease. This disease is caused by liver depression, involving the spleen and stomach of the middle energizer, poor qi movement around the body, and dysfunction of viscera. The treatment should be at the same time of soothing liver and regulating qi, strengthening spleen and tranquilizing spirit. The prescription is composed of bupleurum, angelica, paeoniae alba, atractylodes, poria, mentha, glycyrrhizae and ginger. The liver and spleen are coordinated, so that the qi of the liver is restored to the state of

smooth, the qi of the middle energizer is restored, and the qi of the body is restored to the smooth state. All the symptoms are cured to some extent, which supplements the deficiency of modern medical treatment. 'Medical Examination': "Xiaoyao Powder... the most antidepressant". Xiaoyao Powder can smooth qi. Qi and blood gradually restored to harmony, mood gradually restored to smooth, depression symptoms naturally disappeared. Modern pharmacological studies have shown[7] that Xiaoyao Powder has remarkable antidepressant effect. Glutamate is the transmitter of excitatory conduction in most central nervous system. The synthesis, metabolism and reuptake of glutamate in brain neurons are abnormal. The excitotoxicity mediated by glutamate may lead to the damage of brain neurons, which is prone to neurological diseases, leading to or aggravating depression. It has been found that Xiaoyao Powder can reduce the level of glutamate in the hippocampus of depression rats, playing an antidepressant role[8].

Most of the patients with diabetes eat ointment beam thick flavor, spleen and stomach damage, transport loss, spleen gradually weak, wet evil gradually flourish, evil heat sink by chance, hot and humid miscellaneous evil committed to the middle energizer. Spleen disease affects the liver, liver is lost in catharsis, qi movement becomes stagnant. Xiaoyao powder can regulate qi of liver and spleen, viscera function can recover, diabetes will be cured. Many modern pharmacological studies have found that the drug components in Xiaoyao Powder can effectively reduce the blood glucose level. Bupleurum can effectively reduce blood glucose in type 2 diabetic mice[9]. Radix paeoniae dlba has a certain inhibitory effect on α -glucosidase, delaying the absorption of carbohydrates, thereby reducing blood glucose level[10]. Angelica sinensis can improve the sensitivity of diabetic mice to insulin, improve insulin resistance, and inhibit the increase of blood glucose level[11]. Atractylodes can improve the sensitivity of peripheral tissue to insulin, improve glucose tolerance, can significantly reduce fasting blood glucose levels, reduce postprandial blood glucose levels[12]. Poria can reduce oxidative stress, inhibit gluconeogenesis, thereby reducing the level of hypoglycemia[13]. Glycyrrhiza uralensis can significantly inhibit the increase of blood glucose and lipid metabolism disorder in diabetic rats, and can effectively improve insulin resistance[14]. Mentha can effectively reduce fasting blood glucose levels in diabetic mice[15]. Ginger can also effectively delay the increase of blood glucose level[16].

3. Examples of Cases

Wang, a 48-year-old woman, presented with dry mouth and polydipsia 2 months ago. Fasting blood glucose 8.1mmol/L at physical examination a week ago. The patient was admitted to a local hospital and diagnosed with type 2 diabetes. The hypoglycemic regimen was given as follows : metformin hydrochloride 0.5g tid, and blood glucose control was acceptable. In order to seek further treatment of integrated traditional Chinese and western medicine, the patient came to our hospital on December 25, 2021. The symptoms were as follows : dry mouth, excessive drinking, depressed mood, boredom, good rest, dullness, poor night rest, dreaminess, dry stool, and urinate. Tongue red moss white, with teeth marks, pulse string. Western medicine diagnosis : type 2 diabetes with depression. TCM diagnosis : " consumptive thirst " " depression syndrome " combined disease, dialectical liver depression and spleen deficiency. Treatment : Western medicine treatment for temporary continuation of the original hypoglycemic program : metformin 0.5 g tid ; traditional Chinese medicine treatment with soothing liver and relieving depression, invigorating spleen and tranquilizing spirit as the method, the prescription is modified Xiaoyao Powder. Prescription : bupleurum 15g, atractylodes 15g, fried peony 10g, angelica 9g, poria 9g, ginger 9g, mint 6g, vinegar aconite 12g, albizia 15g, malt 15g, hemp seed 15g, fructus aurantii 9g, licorice 3g. A total of 7 doses, decoction 400 mL, morning and evening.

On January 2, 2022, the symptoms of dry mouth, excessive drinking and dry stool in the second

diagnosis were improved, and the symptoms of anorexia, poor night rest and depression were slightly alleviated. Tongue red moss white, there are a little tooth marks, pulse string. On the basis of the front powder, remove hemp seed, fructus aurantii, plus perilla leaf 9g, sour jujube kernel 12g, take 7 doses.

On January 9, 2022, the symptoms of depression were relieved, the tongue was red and white, and the pulse string was thin. Told patients to continue taking this prescription. Follow-up so far, symptoms disappeared, in good condition.

Annotation : The patient was a middle-aged professional woman. She had a unrestrained diet, overeating rich and fat food, damaged middle-jiao qi movement, and spleen should rise but not rise, stomach should fall but not fall, then poor appetite. Over time, the laxity of the liver has also been affected. In addition, the patient suffers from multiple pressures from family and career for a long time. Thinking too much and worrying hard make the liver qi depressed. liver-fire depression burns fluid, then mouth dryness. The normal operation of the body depends on the liver blood and spleen blood. If liver-qi stagnates and spleen loses normal transport, blood will lose harmony, God will lose support, soul will not keep. Then The patient will appear depressed, depressed, sighing, poor sleep symptoms. 'Blood syndrome theory ' carries "the lung heat transfer in the large intestine is the knot, the lung does not moisten the knot, the lung does not drop the knot"[17]. If the liver and spleen are not regulated, the middle warmer will lose healthy movement, the dregs will be difficult to discharge, the stool will dry. Bupleurum and perfume soothe the liver and relieve depression, so that the qi of the liver is restored to barda. Radix paeoniae alba, radix angelicae sinensis nourishing blood and softening liver, yin and urgency. Atractylodis macrocephalae, poria, licorice benefit qi and spleen, so that the middle energizer recovery. Ginger reverse antiemetic, help the coke machine turn. Mentha soothes liver and purges heat, helping bupleurum to recover liver qi. Hehuanhua soothes liver and relieves depression, calms heart and calms mind, regulates qi and stomach, which can alleviate the poor night rest caused by liver depression and spleen deficiency. Raw malt spleen and stomach, middle warmer qi movement back to health, appetite. The sexual taste of hemp fible seed is ganping. It can moisturize and defecate. The taste of fructus aurantii is bitter taste. It can alleviate qi stagnation. With the combination of the two herbs, the fu-organ qi recovered smoothly, the dregs were discharged normally, and the partial dry stool was alleviated. Second clinic dry mouth, drink more, dry stool and other symptoms improved, anorexia, night rest, depression and other symptoms eased. So go hemp seed, fructus aurantii immaturus, plus perilla leaf and common jujube seed. Perilla leaf tastes pungent, soothes liver depression, helps bupleurum, perfume smooth liver. The sexual taste of common jujube seed is glyceric acid. It can nourish blood and liver, calm heart and calm mind. Assist silktree albizia flower to regulate liver qi, so that yang enters yin, yin and yang are coordinated, and night rest is safe. Three diagnostics continue to take the original prescription, liver and spleen qi recovery, viscera function recovery, stable condition.

4. Discussion

With the increasing incidence of diabetes complicated with depression, people pay more and more attention to it. The two interact with each other, and the disease is not easy to control. Modern medicine has limited treatment methods for this, often targeting a specific target, and the curative effect is not obvious. Traditional medicine in the treatment of holistic view and syndrome differentiation as the guiding principle, with integrity, multi-target, collaborative characteristics, to some extent, make up for the shortcomings of modern medicine. Traditional medicine believes that the occurrence of this disease is related to the disharmony of liver and spleen. Based on Xiaoyao Powder, it is flexible to add and subtract according to the syndrome, and the clinical effect is good, which is worthy of popularization and application.

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