中医糖尿病治疗学

The Treatment of Diabetes Mellitus with Chinese Medicine

A Textbook and Clinical Manual

Bob Flaws, Lynn Kuchinski
& Robert Casañas, M.D.

Published by:
BLUE POPPY PRESS
A Division of Blue Poppy Enterprises, Inc.
5441 Western Ave., Suite 2
Boulder, CO 80301
www.bluepoppy.com

First Edition, April 2002

ISBN 1-891845-21-7

Page design: Eric J. Brunton
Cover design: Frank Crawford

COMP Designations: Original work

10 9 8 7 6 5 4 3 2 1

Printed at Thomson-Shore, Inc., Dexter, MI

Library of Congress Cataloging-in-Publication Data

Flaws, Bob, 1946-
The treatment of diabetes mellitus with Chinese medicine / by Bob Flaws, Lynn Kachinski & Robert Castellas
p. ; cm.
Includes bibliographical references and index.
ISBN 1-891845-21-7
1. Diabetes--Alternative treatment. 2. Medicine, Chinese. I. Kachinski, Lynn M. II. Castellas, Robert, 1949- III. Title.
[DNLM: 1. Diabetes Mellitus--therapy. 2. Medicine, Chinese Traditional. WK 815 F598t 2001]
RC661. A47 F56 2001
616.4'6206--dc21

2001056706

TABLE OF CONTENTS

Preface ix
Table of Contents xi
1. Diabetes Mellitus & Western Medicine 1
2. The History of Diabetes in Chinese Medicine 11
3. The Disease Causes & Mechanisms of Diabetes 21
4. Diabetes Materia Medica 31
5. Commonly Used Chinese Medicinal Formulas in Diabetes 43
6. Acupuncture, Acupressure & Tuina and the Treatment of Diabetes 53
7. Diet & Diabetes 57
8. Exercise & Diabetes 75
9. The Treatment of Diabetes Based on Pattern Discrimination 79
10. Gestational Diabetes 111
11. Hepatogenic Diabetes 117
12. Diabetic Ketoacidosis 123
13. Nonketotic Hyperosmolarity 131
14. Diabetic Lactic Acidosis 135
15. Diabetic Hypertension 139
16. Diabetic Hyperlipoproteinemia 147
17. Diabetic Retinopathy 155
18. Diabetic Neuropathy 169
19. Diabetic Arteriosclerosis Obliterans & Acromelic Gangrene 221

20. Diabetic Dermatological Complications 237
21. Diabetic Heart Disease 257
22. Diabetic Cerebrovascular Disease 269
23. Diabetic Nephropathy 279
24. Common Opportunistic Infections in Patients with Diabetes 293
25. Diabetes & Other Endocrine Disorders 317
26. Diabetic Psychological Disturbances 329
27. Syndrome X 333
28. Patient Adherence & Practitioner Monitoring 337
29. Integrating Chinese & Western Medicines 341

Appendix A
An Analysis of Chinese Medicinals Used in Ancient Formulas for the Treatment of Wasting & Thirsting 345

Appendix B
Western Diabetes Medications & Their Possible Side Effects 347

Glossary 349

Bibliography 357

Formula Index 379

General Index 383

Book List

1

Diabetes Mellitus & Western Medicine

Definition

Diabetes mellitus (DM) is a group of metabolic diseases characterized by high levels of blood glucose resulting from defects in insulin secretion, insulin action, or both. It is by far the most commonly occurring disorder of the endocrine system in all populations and in all age groups.[1]

History

The earliest surviving description of diabetes mellitus comes from the *Ebers Papyrus* which is believed to have been written by the Egyptian physician Hesi Ra around 1550 BCE. This papyrus contains descriptions of a number of diseases and their treatments. One of the descriptions so closely resembles diabetes that it is highly unlikely the author could have been referring to anything else. Hesi Ra recommended a liquid decoction made from animal, mineral, and vegetable medicinals.

One thousand years later, physicians in India developed the first recorded clinical test for diabetes. They observed that flies and ants were attracted to the sweet tasting urine of people afflicted with certain diseases. Sushruta, the father of Ayurvedic medicine, accurately described these diseases, including diabetes, around 500-600 BCE. In the second century CE, Charaka, another famous Ayurvedic practitioner, was the first to discern a difference between two groups of diabetics. He noted the difference between thin people who develop this disease at a young age and obese people who develop diabetes at an older age. He also noted that the older, heavier group seemed to live longer. This method of classifying patients with diabetes remains with us today. We now refer to the first group as type 1 and the second group as type 2 diabetes.

Around 230 BCE, Paul of Aegina described dipsacus (a term referring to the tremendous thirst experienced by those with diabetes) as a weakness of the kidneys combined with excessive dampness produced by the body. Paul recommended that the early stages of this condition be treated with a liquid decoction of potherbs, endive, lettuce, rock-fish, the juice of knotgrass, and elecampane in dark wine with dates and nardle. For those with more advanced disease, he suggested the application of compresses to the hypochondrium over the kidneys made of vinegar, rose oil, and mouldwort. In addition, Paul also suggested the use of bleeding. The name "diabetes" was coined by the Greco-Roman physician, Aretaeus of Cappadocia between 30-90 CE. Diabetes means a "siphon" or "to run through." This refers to the chronic polyuria which is characteristic of this disease. Although many authors from the 15th century BCE to the second century CE described conditions characterized by polyuria, few recognized the difference between those with diabetes and people afflicted with other causes of polyuria. Demetrio of Apamea was one of the first to discern a difference between diabetes and other causes of polyuria, and it was Aretaeus, mentioned above, who first distinguished between diabetes mellitus and diabetes insipidus. The Roman physician, Galen (131-201 CE), wrote that, at least in his time, diabetes was a rare affliction. It would appear that Galen encountered only two cases during his entire career. Twentieth century researchers would later use these observations as evidence that the incidence of diabetes has steadily risen since ancient times. Galen, unlike Aretaeus, labeled the condition diarrhea urinosa and dipsakos, referring to the excessive urine production and thirst experienced by diabetics.

During the 9-11th centuries CE, Greco-Roman medicine

was carried on by the Arabs as Unani medicine. However, Unani medicine is not just Greco-Roman medicine but contains a large admixture of Ayurvedic and Chinese traditions. For instance, the Arab writer Rhazes (865-925 CE) translated the Sanskrit writings on diabetes into Arabic. One of the greatest of these Arab doctors, Abu Ali al-Hussain ibn Abdallah ibn Sina (Avicenna, 980-1037 CE), published a monumental medical encyclopedia titled *Qanun fi al-Tibb* (*The Canons of Medicine*) that accurately described the clinical features of diabetes as well as several of its complications, including gangrene and loss of sexual function. His recommended treatment included lupin, fenugreek, and celery seeds.

During the 10-15th centuries, despite occasional insightful observations, little progress was made in the Western diagnosis or treatment of diabetes. It was not until European medical science began to progress in the 16th century that real progress in the recognition, understanding, and treatment of diabetes was made. European medical scientists rediscovered what Eastern medical science had observed during the previous thousand years and carried their observations further. During the 16th century, European physicians advanced uroscopy or inspection of the urine to a high art. Bombastus von Hohenheim, a Swiss physician better known to history as Paracelsus, observed that a white powder was left when the urine of a person with diabetes was allowed to evaporate. He concluded, incorrectly, that this residue was salt. According to Paracelsus, this salt caused the kidneys to develop excessive thirst and produce excessive urine. In Italy, Cardano (1501-1576 CE) observed that those with diabetes seemed to put on more fluid than they took in. However, he was unable to explain this observation.

In 1684, Thomas Willis in London sensed that the urine in patients with this condition is "wonderfully sweet as if imbued with honey or sugar."[2] In addition, he surmised, quite correctly, that the misdeeds of diabetes had risen since ancient times because of excessive consumption of food and wine. Thomas Sydenham (1624-1689), a contemporary of Thomas Willis, came close to the modern explanation of diabetes when he hypothesized that diabetes is a systemic disease caused by the incomplete digestion of chyle. He further speculated that the increased urine production associated with diabetes is related to the excretion of the incompletely digested and non-absorbable chyle. In 1776, Matthew Dobson was the first to show conclusively that the urine of those with diabetes does, in fact, contain sugar. Thus the association between this disease and a disturbance of carbohydrate metabolism became apparent. Several years later, another British physician, John Rollo, was the first to add the adjective mellitus to diabetes when he published a paper titled, "An Account of Two Cases of Diabetes Mellitus." Rollo applied the name mellitus, derived from the Greek and Latin for honey, to distinguish diabetes mellitus from other causes of polyuria in which the urine has no sweet taste. He termed the other causes of polyuria "diabetes insipidus" (from the Latin for tasteless), a term still used today. Rollo treated patients with diabetes mellitus with a high protein, low carbohydrate diet and compounds that would suppress the appetite, such as antimony, digitalis, and opium. In 1788, Thomas Cawley published a paper relating this disease to a disorder of the pancreas. Cawley observed the development of diabetes in people who had sustained injury to the pancreas.

In 1869, a German medical student, Paul Langerhans, published a paper identifying two types of cells in the pancreas, one which secreted normal pancreatic juices and the other whose functions were unknown. Several years later, these cells came to be known as the islets of Langerhans. In 1889, Joseph von Mering and Oskar Minkowski showed that removal of the pancreas from dogs led to a condition resembling diabetes with its characteristic rise in blood glucose and the appearance of glucose and ketones in the urine. At the turn of the century, Eugene L. Opie of the Johns Hopkins University School of Medicine and others were convinced that the islets of Langerhans functioned as an endocrine gland. However, after years of searching, they failed to isolate the active principle. In 1908, the German scientist, Georg Zuelzer created the first injectable insulin extract to suppress glycosuria. However, it caused far too many side effects. Thus, up until 1916, opium was the only widely used medicine in the Western medical treatment of diabetes. However, this only dulled the patients' despair. It did nothing to cure or treat.[3]

From 1910-1920, Frederick Madison Allen and Elliot P. Joslin were the two leading diabetes specialists in the United States. Joslin believed diabetes was "the best of the chronic diseases" because it was "clean, seldom unsightly, not contagious, often painless and susceptible to treatment."[4] In 1913, Allen published *Studies Concerning Glycosuria and Diabetes*, a book which is significant for the revolution in diabetes therapy that developed from it. In 1919, Frederick Allen published *Total Dietary Regulation in the Treatment of Diabetes*, citing exhaustive case records of 76 of the 100 diabetes patients he observed, and became the director of diabetes research at the Rockefeller Institute. Also in 1919, Allen established the first clinic in the U.S. to treat patients with diabetes, hypertension, and Bright's disease, and wealthy and desperate patients flocked to it.

On Oct. 31, 1920, Dr. Frederick Banting conceived of the idea of insulin after reading Moses Barron's "The Relation of the Islets of Langerhans to Diabetes with Special Reference to Cases of Pancreatic Lithiasis" in the November issue of Surgery, Gynecology and Obstetrics. For the next year, with the assistance of Charles Best, James Collip, and J.J.R. Macleod, Dr. Banting continued his research using a variety of different extracts on depancreatized dogs. In 1921, Banting and Best showed that a substance extracted from the pancreas could lower blood glucose in dogs. This substance was the protein insulin, and soon thereafter insulin was being used to treat diabetes mellitus in humans. The first human to receive a dose of insulin was the 14 year-old, Leonard Thompson, on Jan. 11, 1922.[3] On May 30, 1923, Eli Lilly and Company and the University of Toronto agreed to a contract for the mass production of insulin in North America. On Oct. 23, 1923, Dr. Banting and his colleague, Prof. Macleod, were awarded the Nobel Prize in Physiology of Medicine. Dr. Banting shared his award with Best, and Prof. Macleod shared his award with Dr. Collip.

Protamine zinc insulin was introduced in the 1930s. During the 1940s, the link was made between diabetes and such long-term complications as nephropathy and retinopathy. In 1946, the standard insulin syringe was developed, helping to make diabetes management more uniform. The lente series of insulins were introduced during the 1950s, and oral drugs were introduced to help lower glycemic levels in 1955. Also in 1955, Dr. Frederick Sanger determined the complete amino acid sequence of this polypeptide, for which he was awarded the Nobel Prize in 1958. In 1960, home testing of blood glucose was developed to improve glycemic control. In 1966, the first pancreas transplant in humans was performed. Since then, 11,000 pancreas transplants have been performed worldwide, with 1,000 new transplants per year.[3] In 1969, Donald F. Steiner showed that insulin is actually synthesized as a larger precursor molecule, proinsulin.[3] Insulin testers and the insulin pump were developed in 1970, and laser surgery was introduced to treat diabetic retinopathy. Advances in chromatography in the 1960s and 70s led to even more highly purified insulins. In 1980, due to recombinant DNA technology, biosynthetic insulin was introduced. In fact, biosynthetic insulin was the first medication created through such recombinant DNA technology. More recently, DNA technology has led to the ability to synthesize insulin analogs. To date, more than 300 insulin analogs have been produced.

While the purity of insulin has increased and the needle size for injection has decreased, thus reducing the discomfort associated with subcutaneous insulin injections, no method of insulin delivery other than injection is currently available. Therefore, research, including clinical trials, is currently underway to develop nasal inhalant insulin. Research is also underway to develop orally administered insulin. Preclinical studies conducted by Unigene Laboratories, Inc. of Fairfield, NJ, have shown successful oral delivery of insulin.[3] Other recent developments include the use of combination therapy wherein two or more antidiabetic drugs are used in tandem to achieve a better, more complete therapeutic effect,[3] islet cell transplantation, noninvasive glucose meters and blood analyzers, and humanized, engineered monoclonal antibodies to suppress the immune system in those with type 1 diabetes.

Epidemiology

According to the U.S. Center for Disease Control (CDC), currently 15.7 million Americans have diabetes. This is 5.9% of the total U.S. population, and 10.5 million of these people have actually been diagnosed with this disease.[12] This means that 5.4 million other Americans suffer from insulin resistance or glucose intolerance but do not know they have this condition. Seven hundred ninety-eight thousand new cases of diabetes are diagnosed each year in the U.S. The majority of these individuals (90%) have type 2 or non-insulin dependent diabetes mellitus) (NIDDM), while 10% (1,600,000) have type 1 or insulin dependent diabetes mellitus) (IDDM).[12] Six point three million of these cases are 65 years old or older. In fact, 18.4% of all people in this age group in the U.S. have diabetes. Only 123,000 Americans under the age of 20 have diabetes or 0.16% of all people in this age group. In terms of sex, in those with diabetes over 20 years of age, 7.5 million are men and 8.1 million are women. In terms of ethnicity, there are 11.2 million non-Hispanic white Americans with diabetes, 2.3 million non-Hispanic blacks, and 1.2 million Mexican Americans with diabetes. Other Hispanic/Latino Americans on average are almost twice as likely to have diabetes than non-Hispanic whites of the same age. Nine percent of Native Americans have been diagnosed with diabetes. On average, Native Americans are 2.8 times as likely to have been diagnosed with diabetes as non-Hispanic whites of similar age. Although prevalence data for Asian Americans and Pacific Islanders are limited, some groups within this segment of the population are at increased risk for diabetes. For instance, data suggests that Native Hawaiians are twice as likely to have been diagnosed with diabetes as white residents of Hawaii.[12] Fifty percent of males and 75% of females with type 2 DM are obese.[13] 90% are overweight,[14] and there is a strong familial susceptibility to this condition.[15] One third of all those with diabetes

smoke, one half have elevated cholesterol, half have a sedentary lifestyle, and one quarter are hypertensive.[16] The number of individuals with diabetes is currently doubling every 15 years.[17] At current rates, diabetes mellitus will affect 239 million patients worldwide in 2010.[18]

MORTALITY

Based on death certificate data, diabetes contributed to 193,140 deaths in the U.S. in 1996.[19] This made it the seventh leading cause of death listed on death certificates in America that year. However, diabetes is believed to be under-reported on death certificates both as a condition and a cause of death. The death rate in middle-aged adults for those with diabetes is twice as high as that among those without diabetes.[20] Life expectancy is eight years less than average for those diagnosed with type 2 DM before 40 years of age,[21] and mortality increases in persons with type 2 diabetes with age.[22] The younger the age of development, the greater the risk of excess mortality. Excess mortality is also greater in those using insulin and for women with DM.[23] The three leading causes of mortality for those with diabetes are:

1. Cardiovascular disease
2. Malignant neoplasms
3. Cerebrovascular disease

Ischemic heart disease accounts for 42% of deaths in those with diabetes.[24]

COSTS

The total direct and indirect costs of diabetes mellitus in the U.S. in 1997 were calculated to be $100 billion. Of this, direct medical costs were $44 billion, and indirect costs, such as disability, work loss, and premature mortality, were $54 billion.[25] In a recent study, it was found that the typical oral antidiabetic medication costs patients in the U.S. $1,700 per year. In addition, 90% of U.S. endocrinologists prescribe three or more such medications in combination for patients with type 2 DM.[26]

NOSOLOGY

There are three main types of diabetes mellitus: type 1, type 2, and gestational.

TYPE 1 DIABETES

In type 1 or insulin dependent diabetes (IDDM), the pancreas produces little or no insulin. This type of diabetes is considered an autoimmune disease. It has formerly been called juvenile diabetes, juvenile onset diabetes (JOD), ketosis-prone diabetes, and brittle diabetes. Insulin therapy is required with this form of diabetes. Although type 1 DM may occur at any age, it most commonly develops in childhood or adolescence and is the predominant type of diabetes diagnosed before age 30. Classic symptoms of type 1 diabetes include:

increased thirst
increased urination
hunger
rapid weight loss
vision changes
fatigue

If type 1 diabetes is left untreated, individuals can succumb to diabetic ketoacidosis which can lead to coma or even death.

TYPE 2 DIABETES

In type 2 diabetes or non-insulin dependent diabetes (NIDDM), the pancreas still produces insulin. The problem is that the insulin receptor cells do not respond to this insulin, thus causing improper hepatic glucose metabolism. This is referred to as insulin resistance. In this condition, the pancreas actually produces more insulin in an attempt to decrease elevated blood glucose. However, the cells are unable to respond, and so the blood glucose remains high. Over time, this elevated blood glucose damages the body through the accumulation of sorbitol and glycation proteins, producing symptoms including:

fatigue
general malaise
nocturia
constant thirst
slow, unintentional weight loss
vision changes, such as blurring or poor focusing
decreased immunity
slow healing ability from cuts or wounds

Left untreated, the damage from type 2 diabetes can be irreversible, leading to chronic health problems, such as renal failure, blindness, and vascular compromise. Other names for type 2 diabetes are adult or maturity onset diabetes (MODY) and ketosis-resistant diabetes. This is the most common type of diabetes diagnosed in those over 30 years of age. However, it may occur in children and adolescents, in which case it is referred to as maturity onset diabetes in the young (MODY). Although most patients are treated with diet, exercise, and oral drugs, some

patients may intermittently or persistently require insulin to control symptomatic hyperglycemia and prevent nonketotic hyperglycemic-hyperosmolar coma (NKHHC).

Gestational diabetes

Gestational diabetes (GDM) refers to diabetes diagnosed during pregnancy. Gestational diabetes occurs in 2-5% of all pregnant women. Although this type of diabetes may spontaneously remit after delivery, if left untreated during pregnancy, it may lead to fetal death or miscarriage. It may also predispose both the mother and child to develop type 2 diabetes later on in life. A separate chapter on gestational diabetes is included below.

Other types of diabetes mellitus

Secondary diabetes refers to the development of diabetes as a consequence of some other disease process, such as pancreatic disease, other endocrine disorders, drug or chemical-induced diabetes, insulin or its receptor abnormalities, and certain genetic syndromes, such as Bloom syndrome. There is also malnutrition-related diabetes (also called tropical diabetes), pancreatic diabetes, and ketosis-resistant diabetes of the young. Secondary and other specific types of diabetes account for only 1-2% of all DM.[2]

Etiology & pathophysiology

Type 1 diabetes

In people with type 1 diabetes, the immune system mistakenly destroys more than 90% of the insulin-secreting beta cells in the pancreas, treating them as if they were a foreign invader. Cell-mediated immune mechanisms are believed to play the major role in this beta cell destruction. Other factors which may trigger or are associated with this autoimmune response are genetics, viruses, cow's milk, and oxygen free radicals. Researchers have identified several different genes that might make a person more likely to develop type 1 DM. However, they have not found one single gene which makes all people who inherit it develop this disease. Hence, one can only speak of a type 1 genetic susceptibility. In white populations, a strong association exists between type 1 DM diagnosed before age 30 and specific HLA-D phenotypes HLA-DR3, HLA-DR4, and HLA-DR3/DR4.[3] Of people newly diagnosed with type 1 diabetes, 70-80% have antibodies to their islet cells, 30-50% have antibodies to insulin, and 80-95% have antibodies to glutamic acid decarboxylase (GAD), a protein made by the beta cells in the pancreas.[3] Infection by the Coxsackie B4 virus may play a role in the development of type 1 diabetes by provoking the production of autoantibodies to GAD, since a small region of the GAD molecule is almost identical to a region of a protein found in that virus. As for cow's milk, one group of researchers found a connection between ingestion of cow's milk before 3-4 months of age and development of type 1 DM. However, cow's milk is only one kind of food that may play a role in the development of type 1 DM. Studies in diabetes-prone rats show that withholding wheat and soy helps delay or prevent diabetes.[3] Oxygen free radicals are formed as a by-product of many chemical reactions in the body. These free radicals destroy the body's own cells, and islet cells have very low levels of the enzymes that break down such free radicals. Therefore, agents which increase free radical production, such as smoke, air pollution, and diet may result in destruction of pancreatic cells. In addition, several chemicals have been shown to trigger type 1 diabetes, such as pyrimidyl, a rat poison, and two prescription drugs, pentamidine and L-asparaginase. Other chemicals have been shown to induce diabetes in animals, but current data does not support extrapolation to humans. Geography may also play a role in the development of type 1 diabetes since the incidence of this condition is especially high in Finland and Sardinia.[1]

Risk Factors For Type 1 Diabetes

- **Family history of diabetes, thyroid disease, or other endocrinopathies**
- **Family history of autoimmune disease, such as Hashimoto's thyroiditis, Grave's disease, myasthenia gravis, or pernicious anemia**
- **Cow's milk consumption in infancy**

Type 2 diabetes

The link to a genetic etiology is even stronger in type 2 diabetes than in type 1. The concordance rate for type 2 DM in monozygotic twins (i.e., "identical" twins) is more than 90%. As described above, it is also a fact that, compared to white Americans, African Americans, Asian Americans, Hispanic Americans (excluding Cuban Americans), and Native Americans (especially Pima Indians) are all afflicted with type 2 diabetes more often. Similar to the situation in type 1 DM, rather than being a single "diabetes gene," there seems to be an even greater genetic susceptibility that includes errors on several genes. In this case, genetically determined post-insulin receptor intracellular defects lead to insulin resistance and hyper-

insulinemia. In other words, in type 2 DM, there is an impaired insulin secretory response to glucose and decreased insulin effectiveness in stimulating glucose uptake by skeletal muscles and in restraining hepatic glucose production. The resulting hyperinsulinemia then leads to other common conditions, such as obesity (especially abdominal obesity), hypertension, dyslipidemia, and coronary artery disease. This constellation of five abnormalities is referred to as insulin resistance syndrome, Kaplan's syndrome, or syndrome X.

However, most persons with insulin resistance do not develop type 2 diabetes. In these people with insulin resistance who do not develop diabetes, the body compensates by adequately increasing insulin secretion in order to "push" the glucose into the cells. Since not all patients with insulin resistance develop diabetes, there must be other factors which account for this difference. These other factors in the development of type 2 diabetes are obesity, age, and lifestyle. Although some researchers believe insulin resistance leads to obesity, it also appears that obesity is the single most important trigger of type 2 DM. People with central body obesity (which means carrying too much fat above the hips) have a higher risk of developing type 2 DM than those with excess fat on the hips and thighs. It is also possible that the links between age and a sedentary lifestyle and type 2 diabetes actually have to do with obesity. People typically gain weight as they age, and a sedentary lifestyle leads to reduced burning of calories and subsequent obesity. However, there may also be other age-related changes in body composition which trigger or aggravate diabetes. Likewise, eating a high fat, high calorie diet leads to obesity which may then lead to type 2 diabetes.

Some researchers think that chronic viral infection may also play a part in initiating type 2 diabetes. Implicated viruses include the almost ubiquitous herpes-type viruses such as cytomegalovirus (CMV) and human herpes virus-six (HHV6) and seven (HHV7). These viruses may remain dormant within the body for years or even decades but then become active due to aging, illness, stress, or poor diet.[1] Recent research into two markers of systemic inflammation, C-reactive protein and interleukin-6, suggest that the development of type 2 diabetes may be associated with systemic inflammation.[1]

In addition, researchers have shown that adults who get less than 6.5 hours of sleep per night have a 40% lower insulin sensitivity than those who get closer to a full eight hours of sleep per night. These researchers found that sleep curtailment in otherwise healthy young adults impairs the ability of insulin to do its job properly. Interestingly, it may also cause or contribute to high blood pressure, abnormal lipid levels, and obesity.[4]

RISK FACTORS FOR TYPE 2 DIABETES

- **Obesity and age over 40 years**
- **Family history of diabetes, thyroid disease, or other endocrinopathies**
- **Sedentary lifestyle with a high fat, high calorie diet**
- **African American, Hispanic, Native American, Asian American, or Pacific Islander**

PREVENTION

Maintaining ideal body weight and an active lifestyle in individuals at risk may prevent the onset of type 2 diabetes. Currently there is no way to prevent type 1 diabetes.[5]

SIGNS & SYMPTOMS

Diabetes mellitus may present initially in a number of different ways. Type 1 DM usually presents with symptomatic hyperglycemia or diabetic ketoacidosis (DKA). Symptomatic hyperglycemia is characterized by polyuria followed by polydipsia and weight loss. Type 2 DM patients may present with symptomatic hyperglycemia or rarely with NKHHC. However, type 2 diabetes is frequently diagnosed in asymptomatic patients during routine medical examination or blood tests or when patients present with clinical manifestations of a late stage complication. Late stage complications are discussed below.

DIFFERENTIAL DIAGNOSIS

Diabetes mellitus must be differentiated from the following conditions which may present similar signs and symptoms. In the case of polydipsia, one must first rule out that this is due to medication side effect, psychogenic factors, or diabetes insipidus. For instance, many Western drugs cause oral dryness resulting in increased drinking. In the case of polyuria, one must rule out spastic bladder, urinary tract infection, hypercalcemia, medication side effect, renal wasting, and urologic or prostatic conditions. For instance, benign prostatic hypertrophy and chronic prostatitis both cause frequent urination. Blurred vision may be due to myopia or presbyopia, while fatigue or weakness may be due to thyroid disorder, cardiovascular disease, pulmonary disease, autoimmune disease, anemia, adrenal

insufficiency, or depression. And pruritus may be due to allergy, lymphoma, polycythemia, or renal failure. In addition, one must also rule out Cushing's disease and corticosteroid use.

Differential Diagnosis

- **Polydipsia: Medication side effect, psychogenic factors, diabetes insipidus**
- **Polyuria: Hypercalcemia, medication side effect, renal wasting, urologic or prostate conditions**
- **Blurred vision: Myopia, presbyopia, cataracts, macular degeneration, hypoglycemia, etc.**
- **Fatigue &/or weakness: Thyroid disorder, anemia, adrenal insufficiency, depression, etc.**
- **Pruritus: Allergy, renal failure, lymphoma, polycythemia**
- **Cushing's disease**
- **Corticosteroid use**

Diagnosis

Physical examination

Physical examination may reveal "stocking glove" neuropathy, cataracts, central obesity, acanthosis nigricans, carpal tunnel syndrome, mucocutaneous candidiasis, foot ulceration, elevated blood glucose levels with weight loss, decreased blood pressure, nonhealing wounds (especially on the extremities), recurrent cutaneous infections, retinal abnormalities or cataract formation, carotid bruits, abdominal tenderness, fatty liver, dry skin, hair loss over the lower leg and foot, and/or coolness of the extremities.

Symptoms

The patient may present with fatigue, lethargy, poor concentration, and atypical thirst for liquids.

Laboratory tests

The following laboratory test values are those promulgated by the American Diabetes Association. These are somewhat more stringent than those of the National Diabetes Data Group (NDDG) and World Health Organization (WHO).

Two or more fasting blood glucose (FBG) levels over 126mg/dL (>6.99mmol/L)
(FBG between 111-125mg/dL = glucose intolerance)

Random, *i.e.*, non-fasting, blood glucose over 200mg/dL (>11.1mmol/L) plus other signs and symptoms

Oral glucose tolerance test (OGTT) over 200mg/dL (>11.1mmol/L)
(OGTT between 140-199mg/dL = glucose intolerance)

An oral glucose tolerance test may be helpful in diagnosing type 2 diabetes in those whose FBG is between 115-140mg/dL (6.38-7.77mmol/L). However, other conditions than DM can cause abnormalities in OGTT, such as the effects of drugs and normal aging, and not all patients with an abnormal OGTT will develop diabetes.

However, only half of adults with type 2 DM are symptomatic at the time of diagnosis, and only approximately 25% of previously undiagnosed adults with type 2 have a FBG equal to or over 140mg/dL.[9]

Treatment

Goals of treatment

The goals of treatment with Western medicine are to relieve the patient's symptoms, improve their quality of life, prevent acute and chronic complications associated with diabetes, and correct metabolic abnormalities if that can be done safely.[1]

General considerations

The Diabetes Control & Complications Trial (DCCT) has proven that hyperglycemia is responsible for most of the long-term microvascular complications of DM. This study has demonstrated that there is a linear relationship between levels of glycosylated hemoglobin (HbA1c) and the rate at which these complications develop.[10] Therefore, therapy for type 1 DM is aimed at metabolic control to lower levels of HbA1c while avoiding hypoglycemic episodes. This means that treatment must be individualized and modified when circumstances make any risk of hypoglycemia unacceptable, such as in those with short life expectancy or in those with cerebrovascular and/or cardiac disease.

Diet & exercise

Diet and exercise to achieve weight reduction are the first

and major important management strategies in overweight patients with type 2 DM. If improvement in hyperglycemia is not achieved by diet and exercise, then oral treatment with one or more oral antidiabetic drugs is typically initiated. A separate chapter is devoted to dietary therapy for diabetes below.

PATIENT EDUCATION

Patient education is recognized as one of the pillars of the Western medical treatment of diabetes. It is regarded as essential to ensure the effectiveness of the prescribed therapy, to help the patient recognize the indications for seeking immediate medical attention, and to ensure appropriate foot care. On each physician visit, the patient is checked for signs and symptoms of complications. In addition, routine periodic laboratory evaluation includes lipid profile, blood urea nitrogen (BUN) and serum creatinine levels, ECG, and annual complete ophthalmologic examination.

BLOOD GLUCOSE MONITORING

Patients are taught how to monitor their own blood glucose levels, and patients being treated with insulin are taught to adjust their insulin doses accordingly. At least quarterly, HbA1c is checked to estimate blood glucose control over the preceding 1–3 months.

URINE KETONE MONITORING

Patients with type 1 DM are taught how to monitor their own urine for ketones and are advised to implement this test whenever they develop symptoms of a cold, flu, or other concurrent illness, nausea, vomiting, or abdominal pain, polyuria, or whenever their blood glucose levels are unexpectedly high.

DRUG THERAPIES

Western medications for diabetes mellitus are of two main types: insulin and oral antidiabetic drugs.

INSULIN

Insulin is used for type 1 and occasionally for type 2 diabetes (30–40%).[3] Because it is a polypeptide, it cannot be administered orally since it would be destroyed in the gastrointestinal tract. Therefore, insulin is injected subcutaneously, with the dose and type individualized for the patient's condition. Although it cannot be taken orally, a nasal inhalant form is currently under development. There are long-acting, intermediate-acting and short or rapid acting forms of insulin (the latter taken at meals) in order to stabilize glucose levels. Most patients with no endogenous insulin production inject themselves up to four times per day, with the dose of each injection dependent on the pattern of their glucose self-monitoring. Those with some pancreatic function may only require one injection per day. However, it is preferable to use split doses in type 1 DM patients and use a mixed regimen of short and long-acting insulins. There are also insulin pumps for so-called tight control.

ORAL ANTIDIABETIC DRUGS

Oral antidiabetic drugs are only used for type 2 diabetes. They cannot prevent symptomatic hypoglycemia or DKA in type 1 DM patients. Oral antidiabetic drugs are divided into two subgroups: oral hypoglycemic agents and oral antihyperglycemic agents.

ORAL HYPOGLYCEMIC AGENTS

Oral hypoglycemic agents are the sulfonylureas. The sulfonylureas lower blood glucose primarily by stimulating insulin secretion. Secondary effects include improving peripheral and hepatic insulin sensitivity. There are a number of sulfonylurea drugs currently in use. Oral hypoglycemic agents are used when diet and exercise are ineffective or in conjunction with diet and exercise. These include:

First generation:

- Tolbutamide (Orinase)
- Chlorpropamide (Diabinese, Glucamide)
- Acetohexamide (Dymelor)
- Tolazamide (Tolinase)

Second generation:

- Glyburide (Diabeta, Micronase)
- Glipizide (Glucotrol)
- Glimepiride (Amaryl)
- Micronized glyburide (Glynase)
- Glipizide GITS (Glucotrol XL)

These are applied in type 2 DM as monotherapy or in combination therapy with other oral agents and insulin if blood sugar levels are poorly controlled with monotherapy or during intercurrent illness. The cardiovascular safety of sulfonylureas is held in question due to increased risk of atherosclerosis, vasoconstrictive action, dysrhythmias, and myocardial depression.

Oral antihyperglycemic agents

There are several different antihyperglycemic drugs currently in use. These are divided into the biguanides, the alpha-glucosidase inhibitors, and the thiazolidinediones or insulin sensitizers. Common antihyperglycemic drugs include:

Metformin (Glucophage), a biguanide
Acarbose (Precose), an alpha-glucosidase inhibitor
Troglitazone (Rezulin), an insulin sensitizer
Repaglinide (Prandin), an insulin sensitizer

These antihyperglycemic drugs are prescribed singly and in combination therapy. For instance, troglitazone is only used in combination with insulin or metformin, while repaglinide is only used in monotherapy. Metformin is used to prevent progression of glucose intolerance and to avoid atherogenic dyslipidemia.

Benefits of drug therapy

Drug therapies aim to maintain average blood glucose levels at around 130mg/dL so as to:

1. Reduce, slow, and/or prevent microvascular damage and deterioration
2. Decrease symptoms
3. Prevent infection/accelerate wound or ulcer healing
4. Improve vision (by correcting error of refraction acutely and glaucoma long-term)
5. Decrease risk of comorbidities (primarily end organ damage, such as nephropathy, neuropathy, retinopathy, and macrovascular [i.e. cardiac] complications)

Risks of drug therapy

Insulin therapy

Due to error in insulin dosage, a small or missed meal, or unplanned exercise, insulin therapy may result in hypoglycemia requiring emergency care. Insulin therapy may also cause rebound hyperglycemia in the early morning hours before breakfast, the so-called dawn phenomenon. In this case, those with type 1 DM may have to wake each night between 2-4 AM to monitor blood glucose levels. Insulin may also provoke both localized and generalized allergic reactions. Localized allergic reactions include immediate pain and burning followed, after several hours, by erythema, pruritus, and induration. Generalized allergic reactions are rare, but may result in urticaria, angioedema, pruritus, bronchospasm, and even circulatory collapse. In addition, insulin therapy may result in insulin resistance (defined as the use of more than 200 units of insulin per day). Other local reactions to insulin injections include local fat atrophy or hypertrophy. Further, most patients treated with insulin for two or more months develop IgG antibodies to insulin. Of these, 20-30% of patients have insulin (IgE) allergy which may require switching types of insulin, desensitization, or administration of prednisone for many months.

Oral antidiabetic therapy

Oral hypoglycemic agents carry the risk of hypoglycemia, especially in those with impaired renal function or the elderly. In a few cases, these drugs may cause allergic reactions, such as cholestatic jaundice. In particular, chlorpropamide may cause hyperuremia and a deterioration in mental status. In terms of antihyperglycemic drugs, gastrointestinal side effects are common with metformin, although these are often transient and may be prevented if the drug is taken with meals. Metformin is also contraindicated in patients with dehydration, congestive heart failure, liver and kidney disease (due to increase risk of lactic acidosis), or alcoholism. Gastrointestinal side effects are also common with acarbose. However, as with metformin, these are often transient. Troglitazone is potentially hepatotoxic in some idiosyncratic patients.

Complications of diabetes

The main complications of diabetes are neurovascular. In terms of microvascular complications, long-term diabetes may lead to small blood vessel disease or microangiopathy and thickening of capillary walls. Leakage from the capillaries leads to changes in the retina (i.e., retinopathy) causing decreased visual acuity and even blindness. Similar changes in the kidneys (nephropathy) causes impairment of renal function and even complete failure. In terms of macrovascular complications, atherosclerosis may occur earlier and progress faster in patients with diabetes. This may lead to cerebral vascular disease, coronary artery disease, and peripheral vascular disease. Cerebral vascular and coronary artery disease may lead to death, and peripheral vascular disease may lead to gangrene and amputation of affected limbs.

Chronic hyperglycemia causes chemical changes in the nerves which impair their transmission of signals or communication. This results in autonomic, focal, and/or peripheral neuropathy. Sixty percent of those with dia-

betes have some form of neuropathy, whether symptomatic or asymptomatic.[47] Autonomic nervous system dysfunction may manifest as gastric paresis, chronic diarrhea, incomplete emptying of the bladder, impotence, and/or orthostatic hypotension. Peripheral neuropathy may cause loss of sensitivity, burning, itching, or aching and pain, mostly in the lower extremities and, in contradistinction to compressive neuropathies, mostly in a "stocking-glove" pattern.

Other complications may include skeletal changes as a result of calcium deficiency and aging and skin diseases due to impaired sweat gland function. In addition, wounds and infections due to impaired immune system function and capillary damage may occur. The complications of diabetes mellitus are dealt with in separate chapters below.

PROGNOSIS

Prognosis in diabetes mellitus is dependent on the type of diabetes, 1 or 2, and the presence and severity of any complications. Complications usually begin 10-20 years after onset of disease. However, they also typically occur 4-7 years *before* diagnosis.[48] For many years, it was thought that the long-term complications of diabetes were inevitable. We now know that those may not occur with proper management. The Diabetes Control & Complications Trial showed that, in a group of 1,440 DM patients, those treated intensively (i.e., tight control or HbA1c under 7%) had a 76% decreased risk of retinopathy, a 65% decreased risk of nephropathy, and a 55% decreased risk of neuropathy after eight years. In fact, the results were so dramatic that the study was stopped early so that all participants could benefit from intensive management.[49] Another survey, the United Kingdom Prospective Diabetes Study (UKPDS), was completed in 1997. This study followed close to 4,000 people with type 2 diabetes for 10 years. The study monitored how tight control of blood glucose (meaning HbA1c of 7%) and tight control of blood pressure (meaning a blood pressure of less than 144 over less than 82mmHg) could protect a person from the long-term complications of diabetes. At the end of the 10 years, the study showed that those people with tight control of blood glucose and blood pressure had a 32% decreased risk of all diabetes-related deaths, a 44% decreased risk of stroke, a 56% decreased risk of heart failure, and a 37% decreased risk for microvascular complications. The study also found that for every one percentage point decrease in HbA1c, a person could decrease his or her risk for all complications by 25%. The UKPDS dramatically demonstrated that, with good self-care skills, blood glucose control, and blood pressure control, the complications of diabetes are not an inevitable course of the disease.

ENDNOTES:

[1] www.healthlibrary.com/reading/christmas-sp98/Diabetes.htm
[2] Ibid.
[3] www.rshl.ncsh.ac.uk/~nagesh/diabetes-nhs/chapter1.html
[4] www.diabetes.calabour_diabetes/timeline.html
[5] http://journal.diabetes.org/FullText/Classic/Diabetes/V19N6/630.pgl.1.htm
[6] www.diabetesmonitor.org/articles/brochure.html
[7] www.healthlibrary.com, op. cit.
[8] www.uniguru.com/stroke/stroke.html
[9] http://familydoctor.org/handouts/309.html
[10] www.cdc.gov/diabetes/pubs/facts99.htm
[11] Gates, Jude, Diabetes: Etiology, Management, Advances, and Early Interventions, EDA 251-0416, Health & Sciences Television Network, Pinnacle Healthcare, Carrollton, TX, 2001, p. 3
[12] www.cdc.gov/diabetes, op. cit.
[13] http://diabetes-in-america-2.com/adobe/chpt2.pdf
[14] www.britannica.com/news/main/articlehistory_id=365113
[15] www.diabetesnetwork.com/DAC/Access/FreeCookies/DiabetesMellitus.htm
[16] www.diabetes.ca-cal/health/CTFG/diabetes.html
[17] www.healthlibrary.com, op. cit.
[18] www.bmj.com/cgi/content/full/316/7139/1221
[19] www.cdc.gov/diabetes, op. cit.
[20] www.britannica.com/news/main/articlehistory_id=369691
[21] http://diabetes-in-america-2.com/adobe/chpt11.pdf
[22] Ibid.
[23] Ibid.
[24] www.cdc.gov/diabetes, op. cit.
[25] www.aace.com/clin/guidelines.html
[26] www.cdc.gov/diabetes, op. cit.
[27] Beers, Mark H. & Berkow, Robert, *The Merck Manual*, 17th edition, Merck Research Laboratories, Rahway, NJ, 1999, p. 165
[28] American Diabetes Association, *Complete Guide to Diabetes*, Bantam Books, NY, 1999, p. 13
[29] Ibid., p. 12
[30] Beers & Berkow, op. cit., p. 165
[31] www.innerdrive.org/articles/diabetes.htm
[32] http://diabetes.medscape.com/42167.html?acamp=ends_071001
[33] Sandek, Christopher D. & Daly, Anne E., "Diabetes Update," Newsweek, Aug. 27, 2001, special advertising section, p. 8
[34] www.nlm.nih.gov/medlineplus/ency/article/003114.htm#causes%20risk
[35] http://diabetes-in-america-2.com/adobe/chpt2.pdf, op. cit.
[36] www.healthlibrary.com, op. cit.
[37] Ibid., p. 169
[38] www.diabetesweb.com, op. cit.
[39] Gates, op. cit., p. 4
[40] www.aic.nih.gov/insidenih/guidepages/endocrine/diab3.htm
[41] www.nlm.nih.gov/medlineplus/ency/article/003114.htm#prognosis
[42] Ibid.

2

The History of Diabetes in Chinese Medicine

Diabetes mellitus is a modern Western disease category which has been adopted by Chinese medicine in the 20th century under the Chinese translation, tang niao bing (sugar urine disease). However, Chinese doctors have long recognized the clinical manifestations of diabetes mellitus as a specific disorder under the name xiao ke, wasting and thirsting. Below is a brief history of the development of Chinese medical ideas on what is now most commonly referred to as diabetes mellitus.

Spring & Autumn, Warring States, and Han dynasty

The *Nei Jing* (Inner Classic), the pre-eminent classic of Chinese medicine, was compiled in either the Spring and Autumn or Warring States period. Like so many other Chinese disease categories and seminal concepts, the name xiao ke first appears in the *Nei Jing* where there is mention to several different though related conditions: xiao ke, wasting and thirsting, xiao dan, pure heat wasting, ge xiao, diaphragm wasting, and xiao zhong, central wasting. References in the *Nei Jing* to wasting and thirsting are scattered through 14 juan or books of this classic which discuss its disease causes and mechanisms, clinical manifestations, and treatment.

In terms of disease causes, the authors of the *Nei Jing* recognized that overeating of sweets and fats, emotional stress, weakness of the five viscera, and obesity are all closely related to this disease. For instance, the *Su Wen* (*Simple Questions*), "Treatise on Strange Diseases," says:

> This [condition] occurs in those who are fat and beautiful. This person must [eat] many sweet, fine [foods] and too many fats. Fats all cause heat inside humours, and sweets all cause center fullness. Therefore, the qi spills over above, transforming into wasting and thirsting.

The *Ling Shu* (Spiritual Axis), "The Five Changes," says:

> Anger leads the qi to counterflow upward where it ransacks and accumulates in the center of the chest. The qi and blood [thus] counterflow and lodge, and the hip skin [*i.e.*, fat] fills the muscles. The blood vessels do not move, and this transforms to make heat. Heat [then] leads to wasting of the muscles and skin. Therefore, this is called pure heat wasting.

It also says, "[If] the five viscera are all soft and weak, there is the susceptibility to the disease of pure heat wasting." While the *Su Wen*, "The Treatise on Understanding the Appraisal of Vacuity & Repletion," says, "[In] attack of pure heat wasting, [being] fat and [eating] rich foods lead to the accumulation of fat [meats] and fine [foods]."

In terms of disease mechanisms, the authors of the *Nei Jing* identified visceral yin insufficiency as the basic mechanism of this condition. If intestinal and stomach heat binds, it consumes and damages fluids and humors. This then leads to the onset of the main symptoms of this disease. In the *Su Wen*, "Divergent Treatise on Yin & Yang," it says, "Two yangs binding is called wasting." "Two yangs" refers to yang ming heat and binding. In the *Ling Shu*, "The Five Changes," it says:

> An indomitable heart leads to much anger, and anger leads to qi counterflowing upward... [Hence,] the blood vessels do not move, and this transforms to make heat. Heat [then] leads to

> wasting of the muscles and skin [or flesh]. Therefore, this causes pure heat wasting.

The main symptoms of wasting and thirsting are polydipsia, polyphagia, polyuria, and bodily emaciation. In terms of these, the *Su Wen*, "Treatise on Qi Reversal," says, "[In] lung wasting, [if there are] one drink [and] two urinations, [this is] death and [the condition] cannot be treated." Likewise, the author says, "[If] the large intestine shifts heat to the stomach, [there will be] a predilection for eating and emaciation." In the *Ling Shu*, "The Teacher's Transmission," it says:

> Stomach center heat leads to wasting of grains. Therefore, the person has a hanging heart [i.e., feels anxious] and a predilection to hunger.

In terms of the treatment of this disease, it was believed at this time that people with wasting and thirsting should eat and be treated by things which are sweet in flavor and cold in nature. This was believed to enable the engenderment of fluids and thus stop thirst. However, one should also not eat fatty, rich foods, use penetrating, aromatic herbs, or take mineral medicinals which are dry and hot and damage fluids. The authors of the *Su Wen*, "Treatise on the Abdomen & Center," say, "[For] heat in the center/center wasting, it is not ok to administer rich, fatty [foods], penetrating herbs, or stone medicinals."

As for prognosis, the *Su Wen*, "Treatise on Understanding the Appraisal of Vacuity & Repletion," says:

> Pure heat wasting... [if] the pulse is replete and large, [even if] the disease is enduring it can be treated. [If] the pulse is hanging,[1] small, and hard and the disease is enduring, it cannot be treated.

The *Ling Shu*, "Evil Qi, the Viscera & Bowels, and Disease & Form," speaking in terms of the heart, liver, spleen, lung, and kidney pulses says, "Faint and small makes for pure heat wasting." Additionally, the *Su Wen*, "Treatise on the Living Qi Communicating with Heaven," says, "The changes of rich, fatty [foods are] the engenderment of large clove sores on the feet."

In the late Han dynasty, Zhang Zhong-jing, in his *Jin Gui Yao Lue* (*Essentials of the Golden Cabinet*), also wrote about thirsting and wasting. According to Zhang, its main disease mechanisms are stomach heat and kidney vacuity.

> [If] *yang* floats, the pulse is floating and rapid. Floating refers to the qi, [while] rapidity refers to the dispersion of grains. [If the pulse is] also large and hard, [this is because] qi exuberance has led to many urinations. Many urinations result in hardness. [When] hardness and rapidity beat together, this is referred to as wasting and thirsting.

Zhang also says:

> [If] the *fu yang* [or tanxil] pulse is rapid, the stomach has heat within it. This is referred to as dispersion of grains drinking and eating. The stools are constipated and hard, and urination is restrictive.

Likewise, Zhang says:

> [If] a man has wasting and thirsting, urination is contrarily numerous. [If] he drinks one tou, he urinates one tou.

Based on the coordination of pulse signs and symptoms, Zhang divided wasting and thirsting into lung, stomach, and kidney varieties for which he prescribed different formulas and medicinals – *Bai Hu Jia Ren Shen Tang* (White Tiger Plus Ginseng Decoction), *Wen Ge San* (Cecilia Powder), and *Shen Qi Wan* (Kidney Qi Pills) respectively. Based on Zhang's location of this disease in the lungs, stomach, and kidneys, later writers called this condition the *san xiao* or three wastings and divided it into upper, middle, and lower wastings as we still are below.

JIN, SUI & TANG DYNASTIES

During the Jin, Sui, and Tang dynasties, taking longevity or immortality elixirs made from minerals was very popular, and this caused many people to develop wasting and thirsting due to this self-poisoning. In the Sui dynasty, Chao Yuan-fang, in his *Zhu Bing Yuan Hou Lun* (*Treatise on the Origins & Symptoms of Diseases*), says that wasting and thirsting is due to "administration of the five stones in various pills and powders." Likewise, Sun Si-miao, in his *Qian Jin Fang* (*Formulas [Worth] a Thousand [Pieces of] Gold*) published in the Tang dynasty, says wasting and thirsting may be due to taking powders of the five stones. After taking such stones, Sun says the lower burner develops vacuity heat, the kidneys become dry, and yin becomes depleted. This is the origin of dryness and heat in the disease mechanism of wasting and thirsting in Chinese medicine. However, Sun also recognized that overconsumption of alcohol could also cause wasting and thirsting: "Enduring accumulation [i.e., consumption] of alcohol cannot but produce wasting and thirsting." Since alcohol's nature is hot, its consumption leads to the exuberance of heat in the three burners which then leads to dryness and parching of the five vis-

cess. "Hence the person is not able not to drink." As Sun observed:

> Three things must be restrained: wine, sex, and eating refined, starchy cereal products. If this regimen can be observed, one may follow without medicines.

Also in the Tang dynasty, Wang Tao, in his *Wai Tai Mi Yao* (*Secret Essentials of the External Platform*), wrote that, "[If] the kidney qi becomes insufficient, [this may lead to] excessive dominant wanting and thirsting with polyuria and low back pain." He also pointed out that, "Every time the disease comes on, the urine must be sweet," and that, "Those with wanting and thirsting become emaciated." In addition, Wang recognized that patients with wanting and thirsting have scanty qi, are not able to talk much, have vexatious heat within the heart, soreness of the lower legs, and lack of strength. If extreme, such patients may exhibit *essence spirit* obstruction. Wang also knew that this disease is relatively difficult to treat and may relapse. Further, Wang knew that, "[Those with] this disease have many swelling and flat abscesses," and that their "skin engenders sores." It was Wang Tao who emphasized that the kidneys are the root of the onset of wanting and thirsting.

During the seventh century, the physician and bureaucrat Li Xuan wrote an entire monograph on wanting and thirsting in which he attempted to explain why the urine is sweet in such patients:

> This disease is due to weakness of the kidneys and bladder. In such cases, the urine is always sweet. Many physicians do not recognize this symptom... the cereal food of the farmers are the precursors of sweetness... the methods of making cakes and sweetmeats... mean that they all very soon turn to sweetness... It is the nature of the saltiness to descend [to be excreted]. But since the kidneys and bladder in the lumbus are weak, they cannot distill the finest essence. [Instead,] all is excreted as urine. Therefore, the sweetness in the urine comes forth, and the latter does not acquire its normal color.

In terms of treatment during this time, Sun Si-miao lists 52 formulas for wanting and thirsting disease. Among these, the main ingredients for clearing heat and engendering fluids are Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), Radix Rehmanniae (*Di Huang*), and Rhizoma Coptidis Chinensis (*Huang Lian*). However, practitioners of this time, such as Sun and Wang, were of the opinion that Chinese medicinals for the treatment of this condition were not entirely satisfactory. Therefore, they also paid attention to the treatment and prevention of wanting and thirsting through dietary therapy. For instance, Sun Si-miao said that, if one was able to forego drinking alcohol, having sex, and eating salt, one can cure this condition without taking medicinals. According to Wang, "[In terms of] eating, it is desirable to take less but several times; it is not desirable to be satiated and [eat] too much." It was during this period that practitioners were taught that patients with this condition should take a walk after eating—the so-called thousand steps. Patients with wanting and thirsting should not go to sleep after eating and drinking till full.

Interestingly, during the Tang dynasty, acupuncture and moxibustion were prohibited in those with wanting and thirsting. As Sun saw:

> Moxibustion and piercing may lead to sores with suppuration of pussy water that cannot be checked. This may eventually develop into swelling and flat abscesses which may even lead to consciation and death.

Similarly Sun said, "It is also prohibited to do anything which might damage the skin and flesh." This prohibition against acupuncture and moxibustion in those with wanting and thirsting was obviously an attempt to prevent opportunistic infections and gangrene.

Thus, as Robert Temple points out in The Genius of China, "By the seventh century AD, the Chinese had published their observations on the sweetness of urine of diabetics, tried to come up with an explanation for it, and proposed a dietary regimen for control of diabetes which was not far from the modern method of avoiding alcohol and starchy foods."[7]

Song, Jin & Yuan dynasties

The Song, Jin, and Yuan dynasties are seen as a sort of renaissance within Chinese medicine. This was a time of great intellectual ferment, and a number of new ideas on wanting and thirsting entered Chinese medicine during these three dynasties. In the Song dynasty, Wang Huai-yin et al., the compilers of the *Tai Ping Sheng Hui Fang* (*Tai Ping [Era] Imperial Grace Formulary*), divided the treatment of wanting and thirsting into the three wastings. They said, "In terms of the three wanting, the first is called wasting and thirsting, the second is called central wasting, and the third is called kidney wasting."

> The first leads to drinking lots of water but uri-

> eating less. This is wasting and thirsting. The second leads to eating lots of food but drinking less water. The urine is scanty and reddish yellow. This is central wasting. The third leads to drinking water followed by urinating what was [just] drunk. The urine is sweet in flavor, white, and turbid. The low back and lower limbs are wasted and emaciated. This is kidney wasting.

Each of these three species of wasting was correlated to one of the three burners, upper, middle, and lower. Li Min-shou, in his *Jian Yi Fang* (*Simple, Easy Formulas*), "Wasting & Thirsting," says:

> If heat qi soars upwards, the heart suffers vacuity. Fire qi scatters and floods and is not restrained and contained... This is called wasting and thirsting and pertains to the upper burner. The disease is located in the tips [or branches]. If heat amasses in the center, the spleen suffers vacuity and hidden yang brews internally... This is called central wasting. It is also called spleen wasting. It pertains to the middle burner and the disease is located in the sea of water and grains. If heat is deep-lying in the lower burner, the kidneys suffer vacuity... This is called kidney wasting. It is also called acute wasting. It pertains to the lower burner, and the disease is located in the root.

Although the writers of the Song dynasty divided this condition into three subtypes, they knew these were only three different manifestations of a single disease. As the authors of the *Sheng Ji Zong Lu* (*Imperial Aid Assembled Records*) state: "In basis is one even though it has three tips."

In 1189, Zhang Gao, writing in his *Yi Lan* (*Medical Discourses*), noted the importance of skin care in those with wasting and thirsting and the danger of the slightest skin lesions.

> Whether or not such patients are cured, one must be on the watch for the development of large boils and carbuncles. Should such develop near the joints, the prognosis is very bad. I myself witnessed my friend Shao Ben-tao suffering from this disease for several years, and he died of the ulcers.

During the Jin and Yuan dynasties, there were four dominant schools of medicine, called the *Si Da Jia*, the Four Great Schools, and two of these schools added an evolutionary step to the understanding and treatment of wasting and thirsting. Liu He-jian, also called Liu Wan-su, was the founder of the School of Cold and Cool [Medicines]. In his *San Xiao Lun* (*Treatise on the Three Wastings*), Liu emphasized dryness and heat as the main disease mechanisms of this condition.

> If drinking and eating and taking of cakes and candies are not proper, the intestines and stomach become dry and desiccated and qi and fluids do not obtain normal diffusion. There may [also] be consumption and chaos of the essence spirit and overstepping prohibitions [regarding sex]. Or, due to great disease, yin and qi [may suffer] detriment and blood and fluids may decline and become vacuous. Thus yang qi becomes bold and dryness and heat become severely depressed.

Liu points out that a number of different types of heat evils all produce thirst. For instance, heart shifting heat to the lungs produces thirst, kidney heat produces thirst, and stomach and large intestine heat produce thirst. As Liu points out in his *Huang Ti Su Wen Xuan Ming Lun Fang* (*Treatise Making Clear The Yellow Emperor's Simple Questions Plus Formulas*), "Assembled Treatise on Wasting & Thirsting," although there are three wastings, "all are the result of heat." Based on this emphasis on heat as the main disease mechanism of wasting and thirsting, Liu recommended "supplementing the vacuity of kidney water and yin cold, draining the repletion of heart fire and yang heat, and eliminating dryness and heat from the intestines and stomach." Hence Liu Wan-su used a combination of supplementing and filling with cold and cool draining medicinals in the treatment of this disease, creating eight new formulas recorded in his *San Xiao Lun*.

Zhu Zhen-heng, a.k.a. Dan-xi, chronologically the last of the four great masters of the Jin-Yuan and founder of the School of Enriching Yin, elaborated on Liu Wan-su's ideas on the three wastings and dryness and heat. The treatment principles Zhu suggests for upper wasting in his *Dan Xi Xin Fa Zhi Yao* (*The Heart & Essence of Dan-xi's Methods of Treatment*) are to disinhibit dampness so that it can automatically moisten dryness. For middle wasting, Zhu advocated precipitating "off [excessive] drinking of water is discontinued." And for lower wasting, he thought that one should nurture the blood and depurate heat. In general, Zhu said, "The great method is to nourish the lungs, downbear fire, and engender the blood as the ruling [measures]." Zhu also recognized thirst and an excessive desire for water during pregnancy as a type of wasting and thirsting disease.

Although Li Gao, a.k.a. Dong-yuan, founder of the School of Supplementing Earth and arguably the great-

ost of the four great masters of the Jin-Yuan, did not write extensively on wasting and thirsting, he did describe the following characteristics of wasting and thirsting in his *Lan Shi Mi Cang* (*Orchid Chamber Secret Treasury*), "Dry mouth, parched tongue, frequent, numerous urination, blocked, astringent defecation, with dry, bound stools," and "the ability to eat but emaciation." He also said there may be, "numbness of the upper and lower teeth, hardening of the gums with swelling and pain, wilting and weakness of the four limbs, front yin [i.e., the genitalia] as if ice, and a susceptibility to anger and impaired memory." Likewise, Zhang Zi-he, founder of the School of Attack and Precipitation, correctly observed that, "Many patients with wasting and thirsting become deaf and blind and have sores and lichen, welling and flat abscesses."

In addition, the *Dong Yuan Shi Xiao Fang* (*Dong-yuan's Proven Effective Formulas*), arranged and published by Ni Wei-de in the Ming dynasty, gives seven formulas attributed to Li for the treatment of wasting and thirsting. Like most of Li's formulas based on yin fire theory, all of these formulas contain a combination of supplementing and draining, warm and cold ingredients. Most of them contain spleen and qi supplements combined with heat-clearers and qi-rectifiers. Several also simultaneously address blood stasis. *Sheng Jin Gan Lu Yin Zi* (*Engender Fluids Sweet Dew Drink*) and *Qing Shen Bu Qi Tang* (*Clear the Spirit & Supplement the Qi Decoction*) are two representative formulas from this collection. The ingredients of *Sheng Jin Gan Lu Yin Zi* include Gypsum Fibrosum (*Shi Gao*), Radix Panacis Ginseng (*Ren Shen*), uncooked and mix-fried Radix Glycyrrhizae (*Gan Cao*), Fructus Gardeniae Jasminoidis (*Zhi Zi*), Fructus Cardamomi (*Bai Dou Kou*), Cortex Phellodendri (*Huang Bai*), Radix Angelicae Dahuricae (*Bai Zhi*), Fructus Forsythiae Suspensae (*Lian Qiao*), Semen Pruni Armeniacae (*Xing Ren*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), Rhizoma Coptidis Chinensis (*Huang Lian*), Radix Aufkhaldiae Lappae (*Ma Xiang*), Radix Platycodi Grandiflori (*Jie Geng*), Rhizoma Cimicifugae (*Sheng Ma*), Rhizoma Curcumae Longae (*Jiang Huang*), Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), Radix Angelicae Sinensis (*Dang Gui*), Bothus Mamenis (*Quan Xie*), Herba Agastachis Seu Pogostemi (*Huo Xiang*), Radix Bupleuri (*Chai Hu*), Herba Equiseti Fortunei (*Pei Lan*), Flos Helianthi Annui (*Bai Kui Hua*), and Fructus Cubebae (*Bi Cheng Qie*). *Qing Shen Bu Qi Tang* is composed of Rhizoma Cimicifugae (*Sheng Ma*), Radix Bupleuri (*Chai Hu*), uncooked Radix Glycyrrhizae (*Gan Cao*), Cortex Phellodendri (*Huang Bai*), Rhizoma Coptidis Chinensis (*Huang Lian*), Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), Gypsum Fibrosum (*Shi Gao*), Semen Pruni Armeniacae (*Xing Ren*), Semen Pruni Persicae (*Tao Ren*), Radix Angelicae Sinensis (*Dang Gui*), Flos Carthami Tinctorii (*Hong Hua*), Radix Ledebouriellae Divaricatae (*Fang Feng*), Herba Seu Flos Schizonepetae Tenuifoliae (*Jing Jie Sui*), cooked Radix Rehmanniae (*Shu Di*), uncooked Radix Rehmanniae (*Sheng Di*), Fructus Zanthoxyli Bungeani (*Chuan Jiao*), and Herba Asari Cum Radice (*Xi Xin*). Anyone familiar with Li's formulas will immediately recognize their characteristic composition. They are models of complexity and sophistication which reflect the complexity of this condition.

Ming dynasty

In the Ming dynasty, practitioners and authors continued to build on the basis laid down by their predecessors, recognizing more and more complicating symptoms of this disease entity. For instance, Tai Si-gong, in his *Mi Chuan Zheng Zhi Yao Lue* (*Essentials of the Secret Transmission of Proven Treatments*), says, "[In] the three wastings, urination is excessive and there is constipation." The authors of the *Pu Ji Fang* (*Universal Aid Formulas*) noted that those with wasting and thirsting may have "restless sleep and the four limbs may be exhausted and fatigued," while Miao Xi-rong saw that those with thirsting and wasting often had "toothache and missing teeth."

In terms of disease mechanism theory, more emphasis was placed on fortifying the spleen and boosting the qi. For instance, in the *Mi Chuan Zheng Zhi Yao Lue*, "Wasting & Thirsting," it says:

> [When] the three wastings are [first] obtained, the qi is replete and the blood is vacuous. [However, if this] endures and endures and is not treated, qi vacuity takes priority, leading to inability to produce strength."

Likewise, Tai says: "[If] the three wastings endure and the urination is not foul-smelling but, contrarily, becomes sweet, the qi is thrown out in the urine bucket and the disease gets worse." Similarly, it was increasingly recognized that, as this condition worsens, it also involves decline of the Empire fire which becomes unable to rotten and ripen the water and grains. Hence the qi of water and grains is unable to steam and ascend to moisten the lungs. The canopy becomes dry and parched, and thus there is yet another mechanism of thirst. Hence, in the Ming, the saying was created:

> Do not divide upper, middle, and lower. First, quickly treat the kidneys, promptly administering *Liu Wei Wan* (Six Flavors [Rehmannia] Pills)

or additions and subtractions to Ba Wei Wan (Eight Flavors Pills) following the symptoms. By downbearing heart fire and enriching kidney water, thirst is automatically stopped.

This became the root principle for treating wasting and thirsting in this period, and practitioners asked themselves, "[If] a person's water and fire obtain levelness [or balance] and qi and blood obtain nourishment, how can there be wasting?" Li Ding, author of the famous *Yi Xue Ru Men (Entering the Door of the Study of Medicine)*, "Thirsting & Wasting," expressed these treatment principles by saying:

> [When] treating thirst, initially one should nourish the lungs and downbear the heart. [However, if the condition] endures, this leads to enriching the kidneys and nourishing the spleen. Because the root is in the kidneys and the branch is in the lungs, warming the kidneys leads the qi to ascend and upbear, thus moistening the lungs. Kidney chill leads to qi not being upborne and the lungs being scorched. Therefore, Shen Qi Wan (Kidney Qi Pills) is a fine formula for wasting and thirsting. Further, [since] the heart and kidneys both connect with the spleen, nourishing the spleen leads to fluids and humors automatically being engendered. *Shen Ling Bai Zhu San* (Ginseng, Poria & Atractylodes Powder) does this.

Hence the combination of Shen Qi Wan and Shen Ling Bai Zhu San became the main formula for the treatment of wasting and thirsting at this time.

Zhang Jing-yue, also known as Zhang Jie-bin, was one of the founders of the Ming dynasty School of Warm Supplementation. In his *Jing Yue Quan Shu* (Jing-yue's *Complete Book*), he says that wasting and thirsting is due to kidney qi insufficiency and decline and receding of the original yang. Hence the qi does not contain or manage the essence, nor does it transform fluids. Therefore, treatment should include *Zuo Gui Yin* (Restore the Left [Kidney] Pills) to seek yang within yin and *You Gui Wan* (Restore the Right [Kidney] Pills) to seek yin within yang. This then results in yin and yang becoming regulated and integrated.

QING DYNASTY

In the Qing dynasty, practitioners continued refining the teachings of the past concerning wasting and thirsting as well as created some new concepts and techniques. Qin Chang-yu, in his *Zheng Yin Mai Zhi (The Causes, Pulses & Treatment of Conditions)*, identified the three great symptoms of wasting and thirsting thusly, "[In] this condition, following drinking, there is thirst; following eating, there is hunger; following urination, there is urination." Chen Shi-duo, in his *Bian Zheng Bing Jian (The Ice Mirror of Pattern Discrimination)* recognized that this condition is often complicated by gangrene of the lower extremities and that this indicated a poor prognosis.

Also during the Qing, practitioners began to appreciate the role of the liver in the mechanisms of this disease. Huang Yuan-yu, in his *Si Sheng Xin Yuan (Four Sage's Heart Origin)*, "Wasting & Thirsting," says:

> Wasting and thirsting is a disease of the foot *jue yin*. *Jue yin* wind wood and *shao yang* ministerial fire make an exterior-interior [relationship]... The nature of wood is to desire coursing and discharge... [If] coursing and discharging are not fulfilled... this may lead to ministerial fire losing its hibernation and storage.

What this means is that liver depression qi stagnation may lead to depressive heat. Because of the close connection between the liver and kidneys or the liver and liver/ministerial fire, liver depression transforming heat may mutually inflame ministerial fire and cause heat or hyperactivity in any of the viscera and bowels connected to the liver/fire—for instance, the stomach. If liver and stomach heat and hyperactivity flame upward, they will eventually accumulate in and damage the yin fluids of the lungs and heart. Ye Tian-shi, one of the greatest doctors of the Qing dynasty recommended the formula, *Shi Gao E Jiao Tang* (Gypsum & Donkey Skin Glue Decoction) for just this scenario of liver yang assailing the stomach resulting in dryness damaging the lungs.[3] Therefore, the author of the *Su Ling Wei Yun (An Accumulation of the Finest [Points] of the Simple Questions 素)* Spiritual [Axis)], in "Thirsting & Wasting Explained," says, "Wasting and thirsting disease is solely due to punishment by liver wood, not by punishment by lung metal." This Qing dynasty emphasis on the role of the liver in the engenderment of wasting and thirsting disease is summed up by Wu Qian *et al.*, the compilers of the *Yi Zong Jin Jian (The Golden Mirror of Ancestral Medicine)* when they say, "Wasting and thirsting condition is a *jue yin* disease."

However, this does not mean that this teaching concerning the liver supplanted the Ming dynasty's emphasis on the kidneys. Li Zhong-zi, in his *Zheng Zhi Hui Bu (Proven Treatments Collected Supplements)* said:

> [In] the treatment of wasting and thirsting... into

> tially one should nourish the lungs and clear the heart. [If the condition] endures, this leads to the necessity of supplementing the kidneys and nourishing the spleen. The root of engenderment of the fluids and humors of the five viscera is located in the kidneys. Therefore, warming the kidneys and ascending and upbearing the *qi* leads to the lungs being moistened.

Likewise, other Chinese doctors, such as Chen Shi-duo, in his *Shi Shi Mi Lu* (*Stone Chamber Secret Teachings*), continued to emphasize the kidneys as the root of the treatment of wasting and thirsting. Ultimately, Chinese practitioners began more and more to think in terms of simultaneously treating the liver and kidneys. This meant nourishing and emolliating the liver at the same time as supplementing kidney yin and possibly also invigorating kidney yang.

Also in the Qing dynasty, Chinese doctors began discussing the role of transforming phlegm and eliminating dampness in the treatment of wasting and thirsting. For instance, Fei Bo-xiong thought that clearing and moistening for upper wasting should be assisted by seeping dampness and transforming phlegm and that clearing the yang ming for middle wasting should be assisted by moistening dryness and transforming phlegm. This attention to phlegm was no doubt partly due to the fact that wasting and thirsting has long been associated with obesity in Chinese medicine, and adipose tissue is seen as phlegm, dampness, and turbidity. It is also partly due to the physiological characteristics of the spleen that it likes dryness and is averse to dampness. This is the argument Chen Xiu-yuan makes in his *Yi Xue Shi Zai Yi* (*The Study of Medicine is Truly Easy*), "The Three Wasting Conditions," where he advocates "treating [this condition] with spleen-drying medicinals."

Modern Chinese medicine

Perhaps the single most important development of the treatment of wasting and thirsting in Chinese medicine during the 20th century was the identification of wasting and thirsting with the modern Western disease category of diabetes mellitus. For instance, Lin Zhi-gang simply and unambiguously states, "Diabetes is categorized in Chinese medicine as 'wasting and thirsting' disease,"[6] and this is not just the opinion of a single practitioner. Such specific and unambiguous identification of diabetes mellitus with wasting and thirsting is corroborated by Yang Lian-de,[7] Cheng Can-nuo,[8] and Lin Yun-gui,[9] just to name several other famous contemporary Chinese practitioners cited from a single anthology of acupuncture case histories. In fact, such identification of DM with wasting and thirsting commonly forms the opening statement of concluding discussion sections of Chinese research reports on the treatment of diabetes. Clinicians familiar with the Western medical signs and symptoms of diabetes will have no trouble recognizing the salient features of DM in the above traditional descriptions of wasting and thirsting and the correspondence between wasting and thirsting and diabetes mellitus is closer than that of most other traditional Chinese and their putative modern Western disease categories. In fact, as a review of our Chinese language bibliography shows, most modern Chinese clinicians primarily refer to diabetes mellitus and only occasionally speak about wasting and thirsting in other than in an historical context. Most importantly, because of the close correspondence between these two disease categories, we can now use Western laboratory examinations, such as blood glucose and urine glucose and ketones, to help us diagnose this disease and track the patient's progress or lack thereof. Since routine blood and urine examinations are part of most people's annual physical exams, these modern methods can help detect this potentially crippling and life-threatening condition early on when it is still treatable with Chinese medicine.

In terms of building on the past, modern Chinese medicine recognizes and preserves the truth in all the foregoing teachings on wasting and thirsting presented above through the various dynasties of Chinese history. As should be apparent from the copious quotes above, modern Chinese doctors are not cut off from and we continue to study all of the ancient texts regardless of school. However, based on the sum of knowledge and experience gained from these texts, we now know that wasting and thirsting or diabetes may involve the lungs, heart, spleen, liver, and kidneys, both yin and yang, as well as the stomach and intestines. It may also be associated with dryness and heat as well as phlegm and dampness (even at one and the same time). That being said, most modern practitioners believe that the main mechanisms and, therefore, patterns of diabetes mellitus are *qi* and yin vacuity. For instance, Feng Ming-qing, a professor at the Henan College of Chinese Medicine, says, "In terms of diagnosis, the *qi* and yin vacuity pattern is the main one in most [diabetes] patients."[9]

In addition, modern practitioners have come to realize the importance of the role of blood stasis, especially in the many complications of diabetes. Feng Ming-qing gives voice to this contemporary teaching as well when he says, "[In diabetes,] vacuity and stasis are mixed – vacuity is the

root and stasis is the tip [or branch]."[9] Blood and fluids share a common source. Therefore, fluid insufficiency may lead to blood vacuity. If the blood is too vacuous to nourish the heart and its vessels, these cannot stir the blood properly, thus leading to blood stasis. Similarly, if blood does not nourish the liver, the liver cannot maintain its control over coursing and discharge. Hence, qi stagnation eventually may lead to blood stasis. Likewise, because the blood and fluids flow together and phlegm is nothing other than congealed fluids, phlegm and dampness may hinder and obstruct the free flow of the blood, leading to blood stasis. On the other hand, static blood impedes the engenderment of new or fresh blood and is also called dry blood. Therefore, it is easy to see that there are multiple disease mechanisms for the creation of blood stasis in patients with wasting and thirsting. As another example of this modern thinking on the role of blood stasis in diabetes, Hu Jian-hua, a professor at the Shanghai University of Chinese Medicine, has written:

> [If] wasting and thirsting endure for [many] days, yin detriment reaches yang resulting in yin and yang dual vacuity. Yang vacuity leads to cold congelation, and this can lead to blood stasis.[10]

Because we now know there are multiple disease mechanisms at work in this condition and individual patients may have individual combinations of these mechanisms, modern practitioners of Chinese medicine emphasize that treatment of this condition should be individually tailored on the basis of each patient's personal pattern discrimination. Although different contemporary Chinese doctors may use slightly different schemes for the pattern discrimination of this condition, there is broad agreement between contemporary practitioners of Chinese medicine on the main patterns of this condition and the main signs and symptoms of these patterns. Thus the standard for the contemporary professional Chinese medical treatment of this condition is summed up in the four Chinese words, *bian zheng lun zhi*: treatment should be based on pattern discrimination.

Another new development within Chinese medicine is broad-based outcomes research. During the last fifty years, researchers in the People's Republic of China have conducted scores of clinical audits of a host of treatment approaches for this condition. These clinical audits help substantiate the efficacy of Chinese medicine in the treatment of diabetes as well as help assess the relative merits and effectiveness of these different protocols. Because of the clinical importance of these outcomes studies, we have included numerous abstracts of such studies in this book. Further, modern pharmacodynamic research on Chinese medicinals is helping explain why Chinese medicinals have the effects they do on this disorder. Although, such pharmacodynamic research cannot and should not replace the wisdom of selecting these medicinals on the basis of each patient's personal pattern(s), they can help build trust in these medicinals on the part of both practitioners and patients alike. Since placebo plays a large part in every healing encounter, such increased trust, or faith, cannot but benefit our patients.

And finally, modern practitioners are learning how to integrate the precision, power, and speed of modern Western medicine with the safety and holism of Chinese medicine. As we have seen, wasting and thirsting, or what we now refer to as diabetes, has traditionally been considered a potentially difficult to treat disease within Chinese medicine. Many of the complications of this disorder are severely disabling and even life-threatening. When Chinese medicine is used in tandem with modern Western medicine, Chinese comparative research suggests that both benefit. Using such a combination, Chinese medicine typically improves the therapeutic efficacy of Western antidiabetic medications, helps reduce necessary dosages of such Western medications, and helps prevent or eliminate the side effects of such medications. On the other hand, Western medicines often are able to achieve therapeutic results in cases that are recalcitrant to Chinese medicine alone. This includes both serious, debilitating conditions, such as retinopathy and gangrene, as well as life-threatening emergency conditions, such as stroke, myocardial infarction, and ketoacidosis.

Hopefully, the reader will see from this brief history of the Chinese disease category of wasting and thirsting that Chinese medicine is a continuously evolving body of knowledge and practice. Although rooted in classics written more than 2,000 years ago, advances in the Chinese knowledge about and treatment of this condition have been made in every dynasty and continue to be made to this very day.

ENDNOTES:

[1] Stasis, or hanging, also describes something that is spread too apart. In terms of the pulse, this seems the most likely interpretation – that the beats are relatively spaced farther apart than normal. *Cf. ci shou pulse.*

[2] Temple, Robert, *The Genius of China*, Simon & Schuster, Inc., NY, 1986, p. 219.

[3] This formula is comprised of: Gypsum Fibrosum (Shi Gao), Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Gelatinum Corii Asini (E Jiao), uncooked Radix Rehmanniae (Sheng Di), uncooked Radix Ophiopogonis (Mai Dong), and uncooked Radix Albae Paeoniae Lactiflorae (Bai Shao).

[4] Liu Zhiqiang, "A Study of the Efficacy of Treating Type II Diabetes with Integrated Acupuncture & Medicinals," *Fu Jian Zhong Yi Yao*

[Fujian Chinese Medicine & Medicinals], v2, 2000, p. 22.
[5] Yang Lian-de, quoted in Zhang Gui-liang Dai Zhen-jia Ming-jia Ji An [Contemporary Chinese National Acupuncture & Moxibustion Famous Masters Case Histories], compiled by Wang Xue-mi & Liu Dan-yan, Shanghai Science & Technology Publishing Co., Changchun, 1991, p.382.
[6] Cheng Cun-yan, Ibid., p. 698.
[7] Liu Yuk-pui, Ibid., p. 715.
[8] Feng Ming-qing, as reported by Long Guang-yu in "A Brief Introduction to Professor Feng Ming-qing's Theory & Understanding of the Treatment of Diabetes," He Nan Zhong Yi [Henan Chinese Medicine], v1, 2000, p. 15.
[9] Ibid., p. 15.
[10] Hu Jian-hua, as unabridged in Dan Shu-yan & Chen Zi-kui's Xue Ke Jian (The Whys & Therefore Book), Chinese National Chinese Medicine & Medicinals Publishing Co., Beijing, 1999, p. 261.

3

The Disease Causes & Mechanisms of Diabetes

Most Chinese sources consider dryness and heat leading to qi and yin vacuity as the main disease mechanisms of diabetes mellitus. This dryness and heat may be due to any of five main causes: 1) natural endowment exuberance or insufficiency, 2) dietary irregularity, 3) psychoemotional stress, 4) unregulated stirring and stillness, and 5) unregulated sexual activity. A sixth disease cause may be iatrogenesis, and a seventh may be ga worms.

Former heaven natural endowment

When it comes to former heaven natural endowment as a disease cause of diabetes, most Chinese authors stress former heaven insufficiency. This may mean either a former heaven qi and/or yin insufficiency. For instance, Prof. Zhang Su-qing of Xian stresses an original yin depletion and vacuity as the main type of natural endowment insufficiency.[1] Some people are simply born with less yin than others. The act of living is the transformation of yin into yang and the consumption of yin by yang in the same way a candle's flame transforms wax into light and also consumes that wax. The Nei Jing (Inner Classic) says, "[By] 40 years, yin is automatically half." This statement alone helps explain why diabetes is primarily a condition associated with aging. If yin is insufficient to moisten and enrich, this leads to symptoms of dryness. If yin is insufficient to control yang, this leads to hyperactivity of yang and the engenderment of internal heat. If a person is born with less yin, such symptoms of yin fluid dryness and insufficiency may appear earlier than in another person born with more yin. In addition, once yin vacuity gives rise to yang hyperactivity and internal heat, such internal heat damages and consumes yin fluids all the more.

However, the Ling Shu (Spiritual Axis), "Five Changes," also notes, "[If] the five viscera are soft and weak, [there will be] susceptibility to pure heat wasting disease." The word ruo or weak primarily implies qi vacuity in Chinese medicine. If any of the five viscera are fragile or weak, they cannot perform their various functions. These functions include the transformation and engenderment of qi, blood, and fluids. They include the movement and transformation of food and liquids as well as the movement of the blood. They also include the transformation of excess qi and blood into latter heaven essence. Impairment in any of these functions may lead to further qi and yin vacuity or the engenderment of heat evils, phlegm-threats, qi stagnation, and blood stasis. Thus, the Ling Shu, "Root Treasuries," states that heart fragility, lung fragility, liver fragility, spleen fragility, and/or kidney fragility leads to "susceptibility to pure heat wasting disease and easy damage." This means that the qi and yin of persons with inherently weak viscera may be more easily damaged than others whose viscera are inherently stronger.

However, diabetes may also be associated with former heaven, or at least habitual, bodily exuberance. Just as some people have a inherent tendency to qi or yin vacuity, others have an inherent tendency to yang exuberance. People with yang exuberance easily develop internal heat. They also commonly have exuberant stomach yang. When one has exuberant stomach yang, they tend to dispense and transform foods and liquids more quickly than others. Thus they develop large appetites and frequently overeat. If overeating leads to gaining weight and developing adipose tissue, such adipose tissue itself aggravates internal heat. This is based on the saying, "[If one is] fat, [they] must have internal heat." In addition, people with habitual bodily yang exuberance also tend to overwork. During their youth, they have a greater capacity for work and exertion. However, as the aging process begins to take its toll, these people may still habitually overwork, failing

to conserve their qi and yin, thus damaging and consuming both through overstraining.

In real life, people are not entirely habitually qi and/or yin vacuous and insufficient or habitually yang exuberant. Most people are born with a complex assortment of innate vacuities and repletions. It is common to find persons with a strong spleen having weak kidneys or vice versa. Similarly, it is also common to find people with a hot, exuberant stomach and a cold, damp spleen. In any case, Chinese medicine does recognize that inherited tendencies, bodily constitution, and age all play a large part in the development of diabetes.

DIETARY IRREGULARITIES

From as early as the Spring and Autumn and Warring States periods, Chinese doctors have understood that diet plays a very large part in the causation of this disease. The Chinese medical literature identifies three main groups of foods which may cause diabetes. The first are sugars and sweets. Sweet is the flavor of the earth phase and is, therefore, inherently damp. This means that sweet-flavored foods engender fluids in the body. Because the sweet flavor homes to the spleen, sweet-flavored foods especially engender fluids in the spleen. However, the spleen likes dryness and is averse to dampness. Dampness in the spleen damages it, leading to both its encumbrance and vacuity. In Chinese medicine, it is believed that the sweet flavor is moderating or relaxing. Therefore, persons experiencing liver depression qi stagnation typically crave sweets as a sort of self-medication of their tension and depression. While sweet-flavored foods may temporarily relax this tension and depression, ultimately they damage the spleen.

The second group of foods Chinese medicine believes may cause DM are fats and oils. Fats and oils are both inherently damp and inherently hot in Chinese medicine. This means that fats and oils engender fluids. If fats and oils are excessively consumed, an overabundance of fluids will transform into damp evils. These damp evils may give rise to damp heat, they may damage the spleen, resulting in spleen encumbrance and vacuity, and they may eventually congeal into phlegm.

The third group of foods Chinese medicine implicates in the etiology of this condition is alcohol. Alcohol is described in Chinese medicine as being acrid, bitter, sweet, and hot. The heat, acridity, and bitterness of alcohol all damage and consume yin and engender internal heat, while the sweetness of alcohol engenders dampness and damages the spleen which is averse to dampness. Therefore, long-term and/or excessive consumption of alcohol easily leads to dampness and heat. If this damp heat endures, it eventually leads to qi and yin vacuities.

In addition, overeating acrid, warm or hot foods may exacerbate any tendency for any of the above three dietary irregularities to result in damp heat and damage and consumption of yin fluids.

PSYCHOEMOTIONAL STRESS

Zhang Zi-he, in his *Ru Men Shi Qin* (*A Confucian's Responsibility for One Parent's*), "Treatise on the Three Wastings," says, "Wasting and thirsting... is produced by excessive consumption and chaos of the essence spirit [or psyche] and dryness, heat, depression, and exuberance." This underscores the importance of psychoemotional stress as one of the contributory causes of diabetes in Chinese medicine. Stress, no matter what kind, always involves some sort of unfulfilled desire. Either we desire something which we positively want but cannot have or, at least cannot have as much of as we want, such as time or money, or we desire to be rid of something which we negatively do not want, such as trouble, pain, suffering, and disease. In either case, unfulfilled desires leads to liver depression qi stagnation, since every desire, whether positive or negative is nothing other than the subjective sensation of the flow of qi towards or away from something. Because the liver governs coursing and discharge, any thwarting of the movement of qi may damage the liver, causing it to become depressed.

When the liver becomes depressed, any of several things may happen. One, the liver may counterflow horizontally and invade the earth phase. In that case, the spleen typically becomes vacuous and weak, while the stomach may either become vacuous and weak or hot and hyperactive. Secondly, liver depression may transform heat. If this heat endures, it may damage yin fluids. Since heat, due to its yang nature, always tends to move upwards, this heat not only accumulates in and damages the yin of the liver-gall bladder but also accumulates in and damages the yin of the stomach, lungs, and heart. Third, since the qi moves the blood and body fluids, liver depression may give rise to blood stasis on the one hand and phlegm dampness on the other.

In addition, specific emotions may damage specific viscera and cause specific types of damage to the flow of qi. For instance, overthinking and worry damage the spleen, causing the qi to bind in the middle, while anger damages the liver and leads the qi to rise. When anger damages the liver, this means that, subsequent to the anger, liver

depression qi stagnation become even worse. When anger leads the qi to rise, this aggravates any tendency of the liver, stomach, lungs, or heart to counterflow upward. Fear damages the kidneys and leads the qi to descend. Thus continuous or excessive fear may lead to kidney qi vacuity and polyuria. Excessive sorrow damages the lungs and scatters the qi. If the lung qi is scattered, the defensive qi cannot densely pack the interstices and prevent entry by external evils. Likewise, it cannot disinhibit and disperse. This means that the lungs cannot rid themselves of the heat that tends to accumulate in them, nor can they rid themselves of phlegm and rheum which may back up within them. Excessive joy may be interpreted in either of two ways. On the one hand, it may be interpreted as excitement and agitation which easily give rise to heat which then harasses the heart and consumes yin. On the other, it may be interpreted as happiness. When interpreted this way, joy is relaxing and is the antidote to all the other pathological affects. However, if happiness leads to complacency and lethargy, these may then lead to qi vacuity and stasis and stagnation as described below.

Unregulated stirring & stillness

In Chinese medicine, stirring refers to any movement or activity in the body since all activities are dependent on, and a manifestation of, the movement of the qi. This can be mental-emotional stirring, verbal stirring, or physical stirring. Every stirring or movement in the body is empowered by qi. Therefore, it is easy to see that overexertion may consume and damage the qi. Further, because the spleen is the latter heaven root of the engenderment and transformation of qi, fatigue and overexertion first and foremost damage the spleen. This can then lead to any of the complications associated with a vacuous, weak spleen. However, as explained above, life is the transformation and consumption of yin blood by yang qi. Thus, fatigue and overexertion do not just result in qi vacuity but also in yin vacuity.

Stillness is the absence of stirring. It can mean mental-emotional stillness, verbal stillness, or physical stillness. However, as a cause of disease, stillness primarily refers to too much physical inactivity. Physical activity promotes the function of the spleen and stomach, stomach and intestines su ã su the upbearing of the clear and downbearing of the turbid. In other words, although overexertion consumes and damages the qi, adequate physical activity promotes the spleen's engenderment of the qi. Thus it is said, "Excessive lying damages the spleen." Therefore, insufficient physical exercise may cause or aggravate spleen vacuity. Physical activity also promotes the movement of the qi, blood, and fluids throughout the body. Hence physical inactivity contributes to the depression of the qi, blood, dampness, and phlegm. For instance, physical activity is one way of dealing with liver depression qi stagnation. It is also a way to remedy obesity due to accumulation of phlegm turbidity and poor circulation due to blood stasis.

It is easy to see that, when it comes to stirring and stillness, too much or too little of either may contribute to the causation of diabetes mellitus. As in all things having to do with Chinese medicine, the key is the Doctrine of the Mean—exercise and rest in the right, *i.e.*, moderate, amounts.

Unregulated sexual activity

According to Chinese medical theory, sexual desire is the subjective experience of the flaming and exuberance of the lifegate fire. If one indulges this desire by engaging in a sexual activity that leads to orgasm, yang reaches its apogee or extreme and transforms into yin. In terms of qi, blood, yin, and yang, this means that qi and yang are both discharged, while yin essence is lost and/or consumed. Because the kidneys govern the genitalia, excessive sexual activity is believed to lead to kidney qi and essence consumption and vacuity. Thus Wang Tao, in his Wai Tai Mi Yao (*Secret Essentials of the External Platform*), "Wasting & Thirsting and Middle Wasting," says:

> Excessive bedroom affairs must result in kidney qi vacuity and consumption and the engenderment of heat in the lower burner. [This] heat leads to kidney dryness, and kidney dryness leads to thirst.

Interestingly, in our experience it is people with habitual yang exuberance who have the most sexual desire. These typically are also people who hunger rapidly, easily transform depression into heat, and tend to overwork. Further, stirring of the lifegate or ministerial fire causes it to counterflow upward, leaving its source in the lower burner and harassing above. According to Li Dong-yuan, upward stirring of the ministerial fire damages the spleen and leads to qi vacuity based on the saying, "Strong fire eats the qi." Thus excessive sexual activity may lead to both spleen and kidney vacuity.

Iatrogenesis

Traditionally, it was believed that overadministration of mineral medicinals in the form of longevity tonics or elixirs of immortality may damage yin due to these mineral medicinals' warm, acrid nature. Both Sun Si-miao and Wang Tao, living and writing in the Tang dynasty, emphasized

sized such mineral medicinals as causes of wasting and thirsting. In a modern context, certain Western medicinals may cause or aggravate insulin resistance and thus lead to or aggravate diabetes. For instance, both thiazide diuretics and beta-blockers administered to lower and control the blood pressure may cause or aggravate diabetes, while lithium, administered to control bipolar affective disorder, may cause or aggravate the nephropathy often associated with long-term diabetes.

According to the logic of Chinese medicine, other Western drugs which might cause or contribute to the development of diabetes include antibiotics and corticosteroids, such as prednisone. Long-term or excessive use of antibiotics may damage the spleen. This leads proximally to spleen qi vacuity with all its attendant complications and, down the line, to the engenderment of turbid dampness or damp heat. Corticosteroids are very upbearing and out-thrusting. This is why they are so effective for dispersing inflammation. They clear heat the same way that Chinese exterior-resolving medicinals do, but thrusting it out of the body. However, their down-side is similar to that of other powerful acrid, out-thrusting, exterior-resolving medicinals—they consume yin and lead to yang hyperactivity. Since yin and yang are mutually rooted, ultimately, they lead to yin and yang vacuity with concomitant fire effulgence.

GU WORMS

While the Chinese literature does not, to the best of our knowledge, discuss worms or *chong* as a disease cause of wasting and thirsting, we believe that, in at least some cases, an understanding of gu worms may be helpful in understanding the pathophysiology of DM. In Chinese medicine, worms are divided into two broad categories: visible and invisible. Visible worms include tapeworms, roundworms, pinworms, and hookworms, the same parasitic worms recognized by modern Western medicine. However, Chinese medicine also recognizes a category of "invisible" worms called gu. Gu worms are disease-causing agents that somehow enter the body through the mouth with food. Once inside the body, they cause multisystem, complex, knotty disorders. These multisystem disorders always involve chronic digestive complaints, such as indigestion, flatulence, diarrhea, or alternating diarrhea and constipation. On top of such chronic digestive disorders, they also typically involve musculoskeletal disorders, dermatological disorders, and psychiatric disturbances as well as various endocrine dyscrasias, including reproductive disorders.

According to Zhu Dan-xi, gu worm disorders always involve great spleen vacuity complicated by dampness, qi stagnation, and blood stasis. Nowadays, we say that gu worm disorders always involve the triad of spleen vacuity, liver depression, and damp heat, with liver depression qi stagnation possibly giving rise to blood stasis. As we have seen above, spleen vacuity, liver depression, and damp heat are all potential disease mechanisms of diabetes. Further, *Candida albicans*, although categorized in a fungus in Western medicine, is categorized in one of the invisible "worms" of Chinese medicine, and, at least some modern Western clinicians believe that chronic candidiasis may give rise to polysystemic conditions which include diabetes. In this case, it is a diet heavy in sugars and sweets, refined carbohydrates, and alcohol and other fermented foods which causes or at least aggravates candidiasis. While one does not have to consider gu worms as a cause of diabetes (since spleen vacuity, damp heat, and liver depression are adequate disease mechanisms on their own), it is our experience that taking gu worms into account helps to clarify both the Chinese herbal and dietary therapy of DM patients with obvious polysystemic chronic candidiasis.

DISEASE MECHANISMS

Above we have presented the main Chinese medical disease causes of diabetes. Such disease causes then initiate a train of disease mechanisms. In our experience, most DM patients' conditions are the result of a number of factors causing a conjunction of several mechanisms, any or all of which lead to qi and yin vacuity with dryness and heat. For instance, we have seen above that any of a number of factors may cause spleen vacuity – overeating sweets and fats, psychoemotional stress causing liver depression, overtaxation and fatigue, etc. If spleen vacuity fails to move and transform fluids and these collect and accumulate, transforming into dampness, this dampness (or phlegm dampness) may itself lead directly to yin vacuity. This is because evil dampness is nothing other than righteous fluids which are bound up in a way which makes them unavailable to moisten and enrich the body tissues. Thus dampness and phlegm can themselves lead directly to yin vacuity. Similarly, both dampness and phlegm may hinder and obstruct the free flow of yang qi. Since yang qi is inherently warm, if it becomes backed up behind depressed phlegm and dampness, it may transform into heat, thus turning dampness into damp heat and phlegm into phlegm heat. In either case, the heat of damp heat or phlegm heat may damage and consume yin fluids. Further, since blood and fluids flow together, if dampness and/or phlegm cause blood stasis, static blood may impede the engenderment of new or fresh blood. In that case, dry blood may lead to or aggravate yin vacuity.

In the same way, there are a number of pathological dis-

ease mechanisms involved in DM shared between two or more viscera and bowels. We have already seen above how liver depression may invade the spleen and stomach. If the stomach becomes hot and, therefore, hyperactive, it will disperse foods and liquids more quickly than normal. It is said in Chinese medicine, "The kidneys are the bar of the stomach." This saying has to do with the fact that, at least from one perspective, it is the stomach which sends turbid fluids down to the kidneys for eventual excretion by the bladder. Therefore, polyuria may be due at first solely to a stomach heat repletion. However, over time, the kidney qi may become exhausted by this polyuria since some kidney-bladder qi is used up by the expulsion of, and exits with, the urine. This is the mechanism which explains how stomach heat repletion results in eventual kidney qi vacuity. However, damp heat pouring downward from the middle burner may also damage the liver and kidneys below, leading to either or both yin and yang vacuities.

As stated above, heat is yang in nature and, therefore, has an innate tendency to rise. In addition, all the yang qi in the body is connected to and rooted in the lifegate fire. Damp heat pouring downward may stir lifegate fire, resulting in hyperactivity of ministerial fire. Such hyperactivity and upward flaming of ministerial-lifegate fire may then cause or aggravate any evil heat or yang hyperactivity in any of the viscera and bowels of the body, but especially in the liver-gallbladder, stomach, heart, and lungs. The lungs are the floral canopy, and the heart is the *taiyang* of yang. Both are located in the upper burner. Therefore, all heat will tend to ascend to accumulate in and damage lung yin and accumulate in and harass the heart spirit.

On the other hand, the heart and lungs both primarily get their qi and, in the case of the heart, their blood from the spleen. It is the spleen which upbears the clear to become the qi in the lungs and the blood in the heart. Therefore, anything which causes a spleen qi vacuity may also cause a heart and/or lung vacuity. Since the lungs govern the defensive qi, a spleen-lung qi vacuity may lead to easy contraction of external evils and/or nondepuration and downbearing of the qi and fluids. Since it is the heart qi which constricts and the heart blood which nourishes the spirit, a spleen-heart vacuity may lead to nonconstriction and malnourishment of the heart spirit with attendant restless and disquietude. It may also lead to the heart failing to stir the vessels and thus the engenderment of blood stasis in the chest, causing heart pain and loss of consciousness.

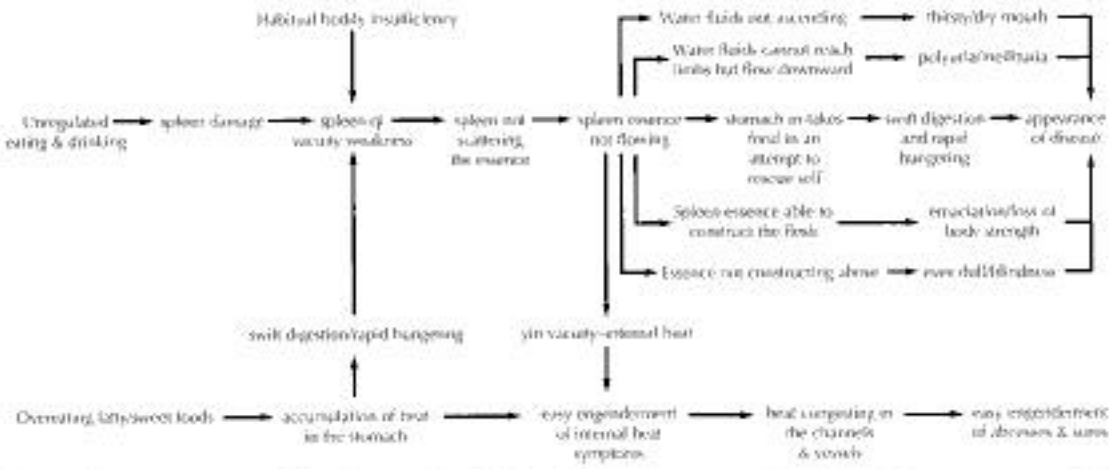
According to the *Nei Jing*, the spleen typically becomes vacuous and weak in the mid 30s (if not before). As the authors of the *Nei Jing* would have it, this is why we begin to develop wrinkles on our faces at around this time, i.e., the blood is not nourishing the skin above. According to Yan De-xin, the modern Chinese geriatrics specialist, this spleen vacuity in the mid 30s is due to liver depression and other impediments to the free flow of qi developed earlier. By 40, half our yin is automatically half used up by the simple act of living. Those of us who have lived more intensely, may have used up more than half our yin by that age. Now, grey hair begins to show on our heads, due to liver blood and kidney yin declining and becoming insufficient. If spleen qi vacuity reaches the kidneys, this may give rise to spleen-kidney qi or yang vacuity. A yin and blood vacuity may fail to nourish and emolliate the liver and hence the liver may not be able to control its function of coursing and discharging. This may then cause or aggravate liver depression. Likewise, if yang vacuity becomes vacuous and insufficient, ministerial fire may not adequately warm and steam the liver. Again, the liver may not be able to manage its function of coursing and discharging, with the causation and aggravation of liver depression.

If spleen vacuity and/or enduring heat evils lead to yin and blood vacuity, the sinews and vessels may lack adequate nourishment. The sinews may become numb and the skin insensitive, or they may contract, giving rise to spasms and contractures. It is also possible for the sinews and vessels to lose their nourishment due to blockage and obstruction by blood stasis and phlegm. In either case, the channels and vessels will fail to move and stir the qi and blood throughout the body, and any number of viscera, bowels, orifices, and body tissues may fail to perform their functions.

If dampness is engendered internally, being heavy and turbid, it tends to sink downward to the lower half of the body where it obstructs the free flow of qi and blood. If damp depression transforms heat or internal heat mixes with dampness, damp heat may be engendered. If this damp heat stews and smolders, it may brew toxins. These toxins may then cause various types of toxic swelling and ulcers on the skin, especially on the lower half of the body. Since these toxic swellings impede not only the free flow of yang qi but also that of yin blood, frequently these heat toxins become bound with blood stasis, thus giving rise to stasis heat, i.e., blood stasis and heat. If heat and toxins putrefy the flesh and blood stasis deprives the flesh of its nourishment, this may give rise to necrosis.

Hence it is easy to see why Chinese doctors consider diabetes a "knotty" disease. A knotty disease means a disease caused by a number of intertwined disease mechanisms, and the disease mechanisms of diabetes in real-life patients are nothing if not intertwined. However, in an attempt to keep things simple, we agree with Qian Xiao-

The Disease Causes and Disease Mechanisms of Diabetes — Table A



From Fan Zhi-yu, "The Disease Causes, Disease Mechanisms, & Treatment Methods of Diabetes," Jiangsu College of Traditional Chinese Medicine, 1, 1986, p. 2.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

BODY TYPE & DISEASE MECHANISMS

According to Qian Xiao-lin, there are different disease mechanisms typically at work in obese and nonobese patients with type 2 diabetes. For those who are obese, Qian emphasizes the overeating of fats and oils and sugars and sweets. These damage the spleen, create phlegm turbidity internally, and lead to the engenderment of heat. In those who are not obese, Qian emphasizes inherent softness and weakness of the five viscera predisposing a person to easy injury by profuse anger. Anger leads the qi to counterflow upward to stasis and accumulate within the chest. The blood and qi counterflow and lodge in the skin and muscles, and the blood vessels do not move. Eventually, stasis and stagnation transforms heat which then wastes the muscles and skin. Therefore, in those with diabetes who are not obese, Qian believes the main disease mechanisms are psychoemotional damage to the liver resulting in qi depression and blood stasis, with depression transforming heat.

In addition, Qian believes that the disease mechanisms in those who are obese must be further divided into repletion and vacuity types. In obese women who actually eat less than normal, Qian thinks the main mechanism is spleen vacuity not moving or transporting. Thus phlegm turbidity accumulates, eventually transforming heat. In these patients, there is a lusterless facial complexion, puffy, atonic flesh, fatigue, lack of strength, scanty qi and a deep, fine pulse. These patients typically do not prominently display the three polys – polydipsia, polyphagia, and polyuria. In those who are obese with a red facial complexion, firm muscles and flesh, undepleted strength, no fatigue, and a surging, large, forceful pulse, the main disease mechanism is overeating leading to spleen qi depression and stagnation, with depression engendering heat. In the first case, there is mainly spleen vacuity, while in the second, there is mainly stomach repletion.[1]

FROM CRADLE TO GRAVE

Many medical authorities believe, "Diabetes is one of the fastest growing health problems today."[4] Although Chinese practitioners recognized this disease as a discrete medical condition more than 2,000 years ago, its incidence appears to be rising in relationship to a group of factors associated with modern and postmodern lifestyle. Some of these factors are obvious and others are not so obvious. Obvious factors include increased consumption of sugars and sweets and fats and oils, decreased physical activity, and increased psychoemotional stress. Less obvious factors include improper feeding of newborns and toddlers and overuse of antibiotics in early childhood. We have seen that spleen vacuity plays a central role in the disease mechanisms of diabetes, and we know that spleen vacuity may be due to overeating sweets, too little physical exercise, overtaxation, and excessive thinking and worrying – all frequently encountered disease causes in Western and other developed countries. However, it is our observation that spleen vacuity in the West is often set in motion in the earliest days and weeks after birth.

It is a statement of fact that the spleen is inherently vacuous and weak in infants and toddlers. Therefore, they easily develop food stagnation. Milk, even mother's milk but especially cow's milk, is very high in sweet or flavor. Foods high (Chinese say thick) in flavor are highly nutritious, meaning they nourish yin. However, they are also relatively hard to digest and easily create a surplus of dampness and turbidity if overconsumed. This evil dampness and turbidity inhibits the free flow of the qi mechanism and damages the spleen, aggravating the baby's inherent spleen weakness. This situation is commonly created in real-life Western babies by feeding on demand. This means feeding the child, usually with breast milk, any time he or she cries, based on the naive assumption that hunger is the only reason for a baby to cry. Although milk, and especially mother's milk, is the single best food for newborn babies to eat, eating even too much of this wonderful food can cause medical problems, *i.e.*, food stagnation and spleen vacuity. Because food stagnation hinders and obstructs the movement of qi, food stagnation may also give rise to liver depression. In that case, liver depression may also aggravate spleen vacuity. Further, because food and qi stagnation may transform heat, heat in the stomach may be engendered, developing a lifelong tendency to spleen vacuity and stomach heat.

To make matters worse, antibiotics are considered extremely cold and heat-clearing in Chinese medicine. In the People's Republic of China, many Chinese doctors now recognize a new disease entity called "post-antibiotic spleen vacuity syndrome." This refers to the sequelae of excessive or long-term antibiotic use primarily in children. It is a well-known fact that antibiotics are routinely mis- and overprescribed. This is so both in China and in the West. Often, infants' first exposure to antibiotics comes in response to food stagnation from overfeeding which has given rise to heat in the stomach and intestines. This heat is often exacerbated at the time of teething due to a global periodic hyperactivity in lifegate fire associated with growth and development. This periodic hyperactivity is a normal physiologic event. However, when lifegate fire becomes periodically hyper-

active, because it is connected to the yang qi of all the other viscera and bowels and body tissues, it may cause mutual inflammation of any smoldering, subclinical heat evils anywhere in the body. Since the yang ming has a lot of qi, this periodic liegate fire hyperactivity may especially cause inflammation of any heat in the stomach and intestines. The stomach and intestines have internal network vessels that go to the inner ear. If heat evils travel up these internal pathways, it may become trapped in the bone box of the ear where it brews and putrifies the blood and fluids there, thus engendering pus. Hence the Western physician prescribes antibiotics for otitis media. This eliminates the inflammation, but often damages the baby's already weak spleen. Because the antibiotics have done nothing to eliminate the dampness, turbidity, and stagnant food which caused the transformative heat evils in the first place, these may return over time, especially since their root disease mechanism is spleen vacuity. Hence a vicious cycle is created of heat evils due to spleen vacuity leading to the prescription of antibiotics leading to more spleen vacuity.

On top of this vicious cycle, we then commonly feed our children foods which only aggravate heat in the stomach and dampness and vacuity in the spleen. For instance, fried, fatty foods, such as potato chips, french fries, hamburgers and hot dogs all engender heat and dampness internally. Other less obvious foods which damage children's spleens are fruit juices, uncooked vegetables, and chilled and iced foods. Fruit juices are intensely sweet. They are the concentrated sweetness of many pieces of fruit. While a little sweet fortifies the spleen, excessive sweetness damages the spleen and engenders dampness. Likewise, while uncooked vegetables, such as celery, carrots, cucumbers, and lettuce have lots of vitamins, they tend to be cool or cold. Cooking helps mitigate this cool nature. However, if eaten raw or uncooked by those with a weak spleen, such uncooked vegetables may also damage the spleen. This is even more likely if one fills the raw celery stalk with cream cheese or peanut butter, staple snacks at many American daycare centers. When children develop hot stomachs, as is all too common among Western toddlers, they will tend to crave cold foods and drinks. However, cold, chilled, iced foods and drinks have two seemingly opposite effects on children's (and adults') middle burners. The coldness damages the spleen at the same time as it actually heats the stomach. This is because, when something very cold lands in the stomach, the stomach's first response, in terms of Chinese medicine, is for its yang qi to become hyperactive in order to transform and disperse this coldness. Therefore, habitual consumption of chilled and iced foods and drinks creates habitual stomach heat which then becomes its own vicious cycle.

The point of this discussion is that, in many Westerners and those living in developed countries, the beginnings of the disease mechanisms of diabetes mellitus are initiated almost immediately after birth due to improper feeding and iatrogenesis – spleen vacuity and dampness, liver depression qi stagnation, and stomach heat. When one adds on top of this pediatric scenario the modern Western diet and lifestyle of adults, it seems to us no wonder that the incidence of this condition is increasing in developed countries adopting the diet and lifestyle of the U.S.A. and Western Europe. Interestingly, these same disease mechanisms also often result in allergies, allergies can lead to autoimmune diseases, and diabetes may be, at least in part, an autoimmune disease. Therefore, in order to prevent the growth in incidence of diabetes in the developed and developing world, we not only need to be careful of diet and lifestyle in adults but also need to reform our thinking about the feeding and health care of the very young.[5]

Endnotes:

[1] Zhao Kun et al., "Professor Zhang Su-qing's Experience of the Diagnosis & Treatment of Diabetes," *Xin Zhong Yi* (New Chinese Medicine), v.5, 2001, p. 14

[2] Quan Xiao-lin, "Six Treatises on Wasting & Thirsting," *Zhong Yi Za Zhi* (Journal of Chinese Medicine), v.4, 2001, p. 252-253

[3] *Ibid.*, p. 151

[4] www.pbcg.com/library/seminars/chen/jan2001/01-0438.htm

[5] For more information on the feeding of infants and post-antibiotic spleen vacuity syndrome, see Bob Flaws's *A Handbook of TCM Pediatrics*, Blue Poppy Press, Boulder, CO, 1997

4

Diabetes Materia Medica

Most patients with diabetes mellitus exhibit some combination of qi and yin vacuity, dryness, and heat. Therefore, the main treatment principles for the treatment of DM are to 1) fortify the spleen and supplement the qi, 2) supplement the kidneys and enrich yin, and 3) clear heat and engender fluids. If yin disease reaches yang, one will also have to invigorate yang. If spleen vacuity has given rise to dampness, one will also have to dry dampness and eliminate turbidity, while if enduring disease has resulted in blood stasis, one will also have to quicken the blood and transform or dispel stasis. Because there is a fairly circumscribed group of treatment principles, we can also identify the most commonly used Chinese medicinals in the treatment of diabetes. Most formulas for diabetes and its complications will include at least several of the medicinals described below.

Radix Panacis Ginseng (Ren Shen)

Nature & flavor: Sweet, slightly bitter, and level (or neutral)

Channel gathering: Spleen, lungs & heart

Functions & indications:

1. Greatly supplements the original qi: Used for vacuity desertion conditions either alone or with Radix Linderae Preparatus Aconiti Carmichaeli (Fu Zi), as in Da Shen Tang (Solitary Ginseng Decoction) and Shen Fu Tang (Ginseng & Aconite Decoction) respectively.

2. Engenders fluids: Used for spleen vacuity transforming fluids insufficiency or heat diseases damaging fluids conditions. It is often combined with Radix Trichosanthis Kirilowii (Tian Hua Fen) and Radix Dioscoreae Oppositae (Shan Yao) for this purpose.

3. Supplements the spleen and lungs and supports the righteous qi: Used for spleen vacuity and lung weakness conditions, such as diarrhea and cough. It is also used in global asthenic conditions.

Dose: 6-9g up to 30g when used alone

Contraindications: Do not use with radishes. Use cautiously if dryness and heat are severe.

Radix Dioscoreae Oppositae (Shan Yao)

Nature & flavor: Sweet and neutral

Channel gathering: Kidneys, lungs & spleen

Functions & indications:

1. Fortifies the spleen and supplements the lungs: Used for spleen and/or lung vacuity. This medicinal can be combined with Rhizoma Atractylodis Macrocephalae (Bai Zhu) and Sclerotium Poriae Cocos (Fu Ling) for spleen vacuity diarrhea and fatigue. It can also be combined with Tuber Ophiopogonis Japonici (Mai Men Dong) and Fructus Schisandrae Chinensis (Wu Wei Zi) for lung vacuity cough.

2. Secures the kidneys and boosts the essence: Used for kidney yin vacuity. It can be combined with cooked Radix Rehmanniae (Shu Di) for night sweats or with Radix Codonopsitis Pilosulae (Dang Shen) for fatigue and watery stools due to spleen-kidney qi vacuity. Also used with

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

TUBER OPHIOPOGONIS JAPONICI (MAI MEN DONG)

NATURE & FLAVOR: Sweet, slightly bitter, slightly cold

CHANNEL GATHERING: Heart, lungs & stomach

FUNCTIONS & INDICATIONS:

1. Enriches yin and engenders fluids: Used for heat diseases which have damaged fluids with oral thirst, dry tongue, and wasting and thirsting. Commonly combined for these purposes with uncooked Radix Rehmanniae (Sheng Di) and Radix Glehniae Littoralis (Sha Shen).

2. Moistens the lungs and clears the heart, drains heat and eliminates vexation: Used for yin vacuity and lung dryness with cough and for heart yin insufficiency with fright palpitations and fearful throbbing.

DOSE: 6-20g

FRUCTUS SCHISANDRAE CHINENSIS (WU WEI ZI)

NATURE & FLAVOR: Sour, sweet, warm

CHANNEL GATHERING: Lungs, heart & kidneys

FUNCTIONS & INDICATIONS:

1. Boosts the qi, engenders fluids, and stops thirst: Used for lung-spleen qi vacuity with non-engenderment of fluids and humors resulting in oral thirst, fatigue, and cough. Commonly combined with Tuber Ophiopogonis Japonici (Mai Men Dong), Radix Codonopsitis Pilosulae (Dang Shen), Radix Astragali Membranacei (Huang Qi), and Sclerotium Poriae Cocos (Fu Ling).

2. Supplements the kidneys and nourishes the heart: Used for kidney yin debility and vacuity with simultaneous lung vacuity manifest by cough. Commonly combined with dry Rhizoma Zingiberis (Gan Jiang), Rhizoma Pinelliae Ternatae (Ban Xia), and Fructus Corni Officinalis (Shan Zhu Yu).

DOSE: 6-20g

HERBA DENDROBII (SHI HU)

NATURE & FLAVOR: Sweet, bland, slightly cold

CHANNEL GATHERING: Lungs, stomach & kidneys

FUNCTIONS & INDICATIONS:

1. Nourishes yin and engenders fluids: Used for stomach yin insufficiency with vexatious thirst. Commonly combined with Tuber Ophiopogonis Japonici (Mai Men Dong), Radix Trichosanthis Kirilowii (Tian Hua Fen), Radix Scrophulariae Ningpoensis (Xuan Shen), and uncooked Radix Rehmanniae (Sheng Di).

2. Enriches yin and clears heat: Used for heat diseases which have damaged yin with dry mouth and spontaneous perspiration. Commonly combined with Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Radix Stellariae Dichotomae (Yin Chai Hu), and Rhizoma Picrorhizae (Hu Huang Lian).

DOSE: 6-20g

FRUCTUS LYCII CHINENSIS (GOU QI ZI)

NATURE & FLAVOR: Sweet, level

CHANNEL GATHERING: Liver & kidneys

FUNCTIONS & INDICATIONS:

1. Supplements yin and blood, stops wasting and thirsting: Used for kidney vacuity and blood debility with low back and knee soreness and limpness, dry mouth with desire to drink, and polyuria. Commonly combined with uncooked Radix Rehmanniae (Sheng Di), Fructus Schisandrae Chinensis (Wu Wei Zi), and Semen Cuscutae Chinensis (Tu Si Zi).

2. Nourishes the liver and brightens the eyes: Used for liver-kidney insufficiency and essence blood debility and vacuity with dizziness, blurred vision, and decreased visual acuity. Commonly combined with Flos Chrysanthemi Morifolii (Ju Hua), Fructus Corni Officinalis (Shan Zhu Yu) uncooked Radix Rehmanniae (Sheng Di), cooked Radix Rehmanniae (Shu Di), Radix Dioscoreae Oppositae (Shan Yao), and Cortex Eucommiae Ulmoidis (Du Zhong).

DOSE: 6-20g

CONTRAINDICATIONS: Spleen vacuity diarrhea and replete evils

Gou Qi Zi has both hypoglycemic and blood lipid lowering effects.

Radix Puerariae (Ge Gen)

Nature & flavor: Acrid, sweet, level

Channel gathering: Spleen & stomach

Functions & indications:

1. Resolves heat and engenders fluids: Used for bodily heat and wasting and thirsting conditions. Commonly combined with Radix Trichosanthis Kirilowii (Tian Hua Fen), Radix Scrophulariae Ningpoensis (Xuan Shen), and Cortex Radicis Moutan (Dan Pi).

2. Resolves the muscles and out-thrusts rashes: Used for external contraction wind cold or wind heat with stiff neck. Commonly combined with Herba Ephedrae (Ma Huang) and Ramulus Cinnamomi Cassiae (Gui Zhi) for wind cold. Used for the initial stage of measles (i.e., wind heat), commonly combined with Rhizoma Cimicifugae (Sheng Ma).

Dose: 6-22g

Ge Gen has hypoglycemic, hypotensive, and blood lipid lowering effects.

Fructus Trichosanthis Kirilowii (Gua Lou)

Nature & flavor: Sweet, cold

Channel gathering: Lungs, stomach & large intestine

Functions & indications:

1. Moistens lung dryness and stops coughing and thirsting: Used for lung heat cough with thick, sticky phlegm. Commonly combined with Rhizoma Pinelliae Ternatae (Ban Xia), Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Bulbus Fritillariae (Bei Mu), and Rhizoma Arisaematis (Nan Xing). When used for coughing and thirsting, commonly combined with Radix Scrophulariae Ningpoensis (Xuan Shen), Tuber Ophiopogonis Japonici (Mai Men Dong), Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), and Radix Scutellariae Baicalensis (Huang Qin).

2. Loosens the chest and rectifies the qi: Used for chest impediment, chest oppression, and discomfort under the heart. Commonly combined with Fructus Immaturus Citri Aurantii (Zhi Shi) and Bulbus Allii Pienlosi (Cong Bai).

3. Moistens the intestines and frees the flow of the stools: Used for intestinal dryness constipation. Commonly combined with Semen Cannabis Sativae (Huo Ma Ren) and Semen Pruni (Yu Li Ren).

Dose: 6-20g

Contraindications: Spleen-stomach vacuity cold with vomiting or diarrhea

Gua Lou has hypoglycemic, hypotensive, and blood lipid lowering effects.

Herba Eupatorii Fortunei (Pei Lan)

Nature & flavor: Acrid, level

Channel gathering: Spleen & stomach

Functions & indications:

1. Engenders fluids and stops thirst: Used for summerheat heat damaging fluids and wasting and thirsting.

2. Resolves summerheat and scatters dampness: Used for summerheat dampness encumbering the spleen with diacral oppression, torpid intake, emission of heat, and slimy tongue fur. Commonly combined with Herba Agastachis Seu Pogostemi (Huo Xiang), Fructus Amomi (Sha Ren), and Folium Perillae Frutescentis (Zi Su Ye).

Dose: 6-30g

Sclerotium Poriae Cocos (Fu Ling)

Nature & flavor: Sweet, bland, level

Channel gathering: Heart, lungs, spleen & bladder

Functions & indications:

1. Fortifies the spleen and supplements the center: Used for spleen vacuity with reduced appetite and fluids and humors collecting internally. Commonly combined with Radix Codonopsitis Pilosulae (Dang Shen), Radix Astragali Membranacei (Huang Qi), Rhizoma Atractylodis Macrocephalae (Bai Zhu), and Radix Dioscoreae Oppositae (Shan Yao).

2. Diuresis: Used for water dampness collecting internally, inhibited urination, super-

facial edema, and phlegm rheum conditions. Commonly combined with Sclerotium Polypori Umbellati (Zhu Ling), Rhizoma Alismatis (Ze Xie), Rhizoma Atractylodis Macrocephalae (Bai Zhu), and Semen Plantaginis (Che Qian Zi).

3. Nourishes the heart and quiets the spirit: Used for heart spirit restlessness, insomnia, and profuse dreams. Commonly combined with Semen Ziziphi Spinosae (Suan Zao Ren), Radix Polygalae Tenuifoliae (Yuan Zhi), and Flos Albiziae Julibrissinis (He Huan Hua).

DOSE: 6-20g

Fu Ling has been shown to have both hypoglycemic and sedative effects.

RHIZOMA ALISMATIS (ZE XIE)

NATURE & FLAVOR: Sweet, bland, cold

CHANNEL GATHERING: Kidneys & bladder

FUNCTIONS & INDICATIONS:

1. Drains/inhibits water and seeps dampness: Used for water dampness collecting internally, inhibited urination, edema, etc. Commonly combined with Rhizoma Atractylodis Macrocephalae (Bai Zhu), Sclerotium Poriae Cocos (Fu Ling), and Sclerotium Polypori Umbellati (Zhu Ling) in the treatment of nephritis.

2. Clears heat and protects yin: Used for lower burner damp heat with red, choppy urination. Commonly combined with Semen Plantaginis (Che Qian Zi), Semen Dolichoris Lablab (Bai Bian Dou), and Herba Dianthi (Qu Mai) in the treatment of diabetes complicated by urinary tract infections.

DOSE: 6-20g

Ze Xie has hypoglycemic, hypotensive, and blood lipid lowering effects.

SEMEN CUSCUTAE CHINENSIS (TU SI ZI)

NATURE & FLAVOR: Acrid, sweet, level

CHANNEL GATHERING: Liver & kidneys

FUNCTIONS & INDICATIONS:

1. Supplements the kidneys and boosts the essence: Used for kidney yang vacuity and decline with low back soreness, seminal emission, etc. Commonly combined with Fructus Lycii Chinensis (Gou Qi Zi), Semen Astragali Complanati (Sha Yuan Zi), Fructus Rubi Chingii (Fu Pen Zi), and Rhizoma Polygonati (Huang Jing). Commonly combined with Gecko (Ge Jie), Cordyceps Sinensis (Dong Chong Xia Cao), and Fructus Ligustri Lucidi (Nu Zhen Zi).

2. Nourishes the liver and brightens the eyes: Used for liver-kidney insufficiency with bilateral blurred vision. Commonly combined with Fructus Lycii Chinensis (Gou Qi Zi), Flos Chrysanthemi Morifolii (Ju Hua), cooked Radix Rehmanniae (Shu Di), and uncooked Radix Rehmanniae (Sheng Di).

DOSE: 6-20g

GECKO (GE JIE)

NATURE & FLAVOR: Salty, level

CHANNEL GATHERING: Lungs & kidneys

FUNCTIONS & INDICATIONS:

1. Supplements the kidneys: Used for kidney vacuity impotence and wasting and thirsting. Commonly combined with Fructus Psoraleae Corylifoliae (Bu Gu Zhi), Semen Cuscutae Chinensis (Tu Si Zi), and Herba Cistanchis Deserticolae (Rou Cong Rong).

2. Supplements the lungs: Used for lung vacuity panting and coughing and hacking of blood. Commonly combined with Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Bulbus Fritillariae (Bei Mu), and Rhizoma Bletillae Striatae (Bai Ji).

DOSE: 3-5g when taken powdered; more when added to a decoction

COOKED RADIX REHMANNIAE (SHU DI)

NATURE & FLAVOR: Sweet, slightly warm

CHANNEL GATHERING: Liver & kidneys

Functions & indications:

1. Enriches and supplements kidney yin: Used for kidney yin debility and vacuity with low back soreness, dizziness, tinnitus, and wasting and thirsting. Commonly combined with Fructus Corni Officinalis (Shan Zhu Yu), Radix Dioscoreae Oppositae (Shan Yao), and uncooked Radix Rehmanniae (Sheng Di).

2. Supplements the blood: Used for various blood vacuity conditions and commonly used in gynecology. Commonly combined with Radix Angelicae Sinensis (Dang Gui), Radix Albus Paeoniae Lactiflorae (Bai Shao), and Caulis Milletiae Seu Spatholobi (Ji Xue Teng).

Dose: 6-30g

Contraindications: Due to this medicinal's enriching, slimy nature, over time, it hinders the spleen and causes lodging of evils. Therefore, it is contraindicated in the case of evil repletions and diarrhea.

Sha Ji has only a slight hypoglycemic effect by itself.

Tuber Asparagi Cochinensis (Tian Men Dong)

Nature & flavor: Sweet, bitter, cold

Channel gathering: Lungs & kidneys

Functions & indications:

1. Enriches and supplements lung-kidney yin: Used for yin vacuity with tidal heat, night sweats, cough, and dry mouth. For lung vacuity, commonly combined with Tuber Ophiopogonis Japonici (Mai Men Dong) and Bulbus Fritillariae Cirrhosae (Chuan Bei Mu). For kidney vacuity, commonly combined with uncooked Radix Rehmanniae (Sheng Di), Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), and Radix Glehniae Littoralis (Sha Shen).

2. Clears vacuity heat: Used for yin vacuity with dryness and heat internally exuberant, dry cough, hacking blood, etc. Commonly combined with Tuber Ophiopogonis Japonici (Mai Men Dong), Radix Stemonae (Bai Bu), Rhizoma Bletillae Striatae (Bai Ji), and Radix Pseudostellariae (Tai Zi).

Dose: 6-30g

Contraindications: Spleen vacuity diarrhea

Semen Nelumbinis Nuciferae (Lian Zi)

Nature & flavor: Sweet, astringent, level

Channel gathering: Spleen, kidneys & heart

Functions & indications:

1. Boosts the kidneys and secures the essence: Used for seminal emission, frequent urination, etc. Commonly combined with Semen Astragali Complanati (Sha Yuan Zi), Semen Euryales Ferocis (Qian Shi), Concha Ostreae (Mu Li), Os Draconis (Long Gu), and Rhizoma Polygonati (Huang Jing). For wasting and thirsting, commonly combined with uncooked Radix Rehmanniae (Sheng Di), Radix Scrophulariae Ningpoensis (Xuan Shen), and Rhizoma Coptidis Chinensis (Huang Lian), as in Qing Xin Lian Zi Yin (Clear the Heart Lotus Seed Drink).

2. Supplements the spleen and stops diarrhea: Used for spleen vacuity diarrhea. Commonly combined with Radix Codonopsitis Pilosulae (Dang Shen), Rhizoma Atractylodis Macrocephalae (Bai Zhu), Sclerotium Poriae Cocos (Fu Ling), and Fructus Rosae Laevigatae (Jin Ying Zi).

3. Nourishes the heart and calms the spirit: Used for heart vexation and insomnia. Commonly combined with Semen Biotae Orientalis (Bai Zi Ren), Arillus Euphoriae Longanae (Long Yan Rou), and Radix Polygalae Tenuifoliae (Yuan Zhi).

Dose: 6-12g

Herba Epimedii (Xian Ling Pi, a.k.a. Yin Yang Huo)

Nature & flavor: Acrid, cold

Channel gathering: Liver & kidneys

Functions & indications:

1. Supplements the kidneys: Used for impotence, penile pain, wasting and thirsting. Commonly combined with Rhizoma Polygonati (Huang Jing), Fructus Corni Officinalis (Shan Zhu Yu), and Gecko (Ge Jie).

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Contraindications: Do not use for excessive bleeding with qi following blood desertion.

This medicinal has shown hypoglycemic effects on high blood glucose in mice.

Fructus Pruni Mume (Wu Mei)

Nature & flavor: Sour, astringent, level

Channel gathering: Liver, spleen, lungs & large intestine

Functions & indications:

1. Constrains the lungs and astringes the intestines: Used for cough and enduring dysentery conditions. For cough, commonly combined with Semen Pruni Armeniacae (*Xing Ren*), Pericarpium Papaveris Somniferi (*Ying Su Ke*), and Rhizoma Pinelliae Ternatae (*Ban Xia*). For enduring dysentery and diarrhea that will not stop, commonly combined with Fructus Terminaliae Chebulae (*He Zi*), Semen Myristicae Fragrantis (*Rou Dou Kou*), and Fructus Schisandrae Chinensis (*Wu Wei Zi*).

2. Engenders fluids and stops thirst: Used for vacuity heat leading to wasting and thirsting. Commonly combined with Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Radix Puerariae (*Ge Gen*), and Tuber Ophiopogonis Japonici (*Mai Men Dong*).

3. Quiets roundworms: Used for the treatment of roundworms in the presence of hot and cold, vacuity and repletion. Commonly combined with dry Rhizoma Zingiberis (*Gan Jiang*) and Cortex Phellodendri (*Huang Bai*), as in Wu Mei Wan (Mume Pills).

Dose: 6-20g

Fructus Rosae Laevigatae (*Jin Ying Zi*)

Nature & flavor: Sweet, astringent, level

Channel gathering: Kidneys, bladder & large intestine

Functions & indications:

1. Secures the kidneys and shuts off the spring: Used for kidney vacuity frequent, numerous urinations. Commonly combined with Fructus Alpiniae Oxyphyllae (*Yi Zhi Ren*) and Fructus Rubi Chingii (*Fu Pen Zi*).

2. Restrains, constrains, and stops diarrhea: Used for enduring diarrhea. Commonly combined with Pericarpium Papaveris Somniferi (*Ying Su Ke*).

Dose: 6-20g

Cortex Phellodendri (*Huang Bai*)

Nature & flavor: Bitter, cold

Channel gathering: Kidneys, bladder & large intestine

Functions & indications:

1. Clears heat and dries dampness: Used for damp heat internally brewing conditions, such as diarrhea and dysentery, abnormal vaginal discharge, and heat strangury. Commonly combined with Rhizoma Coptidis Chinensis (*Huang Lian*), Radix Scutellariae Baicalensis (*Huang Qin*), and Fructus Gardeniae Jasminoidis (*Zhi Zi*).

2. Drains fire and resolves toxins: Used for damp heat toxins internally brewing conditions, such as sores and ulcers, eczema, and lichen. Commonly combined with Fructus Gardeniae Jasminoidis (*Zhi Zi*), Radix Sophorae Flavescentis (*Ku Shen*), and Radix Gentianae Scabrae (*Long Dan Cao*).

3. Recedes vacuity heat: Used for seminal emission, night sweats, bone-steaming, and tidal heat. Commonly combined with Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), as in *Zhi Bai Di Huang Wan* (Anemarrhena & Phellodendron Rehmannia Pills).

Dose: 6-20g

Contraindications: Spleen vacuity

Huang Bai has a hypoglycemic effect.

Cortex Radicis Moutan (*Dan Pi*)

Nature & flavor: Bitter, acrid, slightly cold

Channel gathering: Heart, liver & kidneys

FUNCTIONS & INDICATIONS:

1. Clears heat and cools the blood: Used for blood heat hematemesis, macular rashes, etc., due to heat entering the qi aspect or division. Commonly combined with Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Cortex Phellodendri (Huang Bai), and Radix Rubrus Paeoniae Lactiflorae (Chi Shao).

2. Quickens the blood and dispels stasis: Used for blood stasis and chunked blockage, concretions and conglomerations, etc. Commonly combined with Ramulus Cinnamomi Cassiae (Gui Zhi), Semen Pruni Persicae (Tao Ren), Resina Olibani (Ru Xiang), and Resina Myrrhae (Mo Yao).

DOSE: 6-12g

CONTRAINDICATIONS: Use cautiously during pregnancy.

RHIZOMA ATRACTYLODIS (CANG ZHU)

NATURE & FLAVOR: Acrid, bitter, warm

CHANNEL GATHERING: Spleen & stomach

FUNCTIONS & INDICATIONS:

1. Dries dampness and fortifies the spleen: Used for spleen vacuity with damp encumbrance torpid intake and diarrhea. Commonly combined with Rhizoma Atractylodis Macrocephalae (Bai Zhu).

2. Dispels wind and eliminates dampness: Used for damp impediment and aching and numbness of the four limbs. Commonly combined with Cortex Phellodendri (Huang Bai) and Radix Achyranthis Bidentatae (Niu Xi), as in San Miao San (Three Wonders Powder).

DOSE: 6-12g

Cang Zhu has a marked hypoglycemic effect.

RADIX SALVIAE MILTIORRHIZAE (DAN SHEN)

NATURE & FLAVOR: Bitter, slightly cold

CHANNEL GATHERING: Heart, pericardium & liver

FUNCTIONS & INDICATIONS:

1. Quickens the blood and transforms stasis: Used for various types of static blood obstruction and stagnation in the lower abdomen, chest, and hypochondrium. Can be used alone or with Radix Rubrus Paeoniae Lactiflorae (Chi Shao), Radix Ligustici Wallichii (Chuan Xiong), or Radix Angelicae Sinensis (Dang Gui).

2. Calms the spirit and quiets the heart: Used for insomnia, irritability, and palpitations. It is often combined with Semen Biotae Orientalis (Bai Zi Ren) or Semen Ziziphi Spinosae (Suan Zao Ren).

3. Expels pus and stops pain: Used for blood stasis complications of diabetes and for treating wounds and sores of the limbs. Can be combined with Resina Olibani (Ru Xiang) and Squama Manitis Pentadactylae (Chuan Shan Jia) for painful swellings and sores of the skin.

DOSE: 6-15g up to 30g when used alone

CONTRAINDICATIONS: Use only when blood stasis is present.

This medicinal has shown hypoglycemic effects on high blood glucose. It also lowers serum cholesterol levels, inhibits dermatomycoses, has the ability to lower blood viscosity, inhibits platelet aggregation, and prevents thrombosis.

RADIX ET RHIZOMA POLYGONATI CUSPIDATI (HU ZHANG)

NATURE & FLAVOR: Bitter, cold

CHANNEL GATHERING: Liver, gallbladder & lungs

FUNCTIONS & INDICATIONS:

1. Dispels wind and disinhibits dampness: Used for wind dampness in the channels affecting the skin. Can be combined with Flos Lonicerae Japonicae (Jin Yin Hua) and Radix Salviae Miltiorrhizae (Dan Shen) for psoriasis or skin sores.

2. Disinhibits dampness and clears heat: Used for damp heat in the liver and gallbladder. Can be combined with Herba Artemisiae Capillaris (Yin Chen Hao) for jaundice or with Herba Lysimachiae Seu Desmodii (Jin Qian Cao) for bilious or urinary stones.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Gaofen (*Lbet Zhu Yi*), 6g each, and Fructus Ziziphi Jujubae (*Da Zao*), 5-7 pieces

FUNCTIONS: Clears heat and engenders fluids, boosts the qi and enriches yin

INDICATIONS: Qi and yin vacuity with fire effulgence

QING WEI ZI ZAO YIN (CLEAR THE STOMACH & ENRICH DRYNESS DRINK)

INGREDIENTS: Uncooked Gypsum Fibrosum (*Shi Gao*), 30g, Tuber Ophiopogonis Japonici (*Mai Men Dong*), Tuber Asparagi Cochinensis (*Tian Men Dong*), Radix Trichosanthis Kirilowii (*Tian Hua Fen*), and Semen Oryzae Sativae (*Geng Mi*), 20g each, Fructus Gardeniae Jasminoidis (*Zhi Zi*) and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 15g each, wine-processed Radix Et Rhizoma Rhei (*Da Huang*) and Radix Scutellariae Baicalensis (*Huang Qin*), 9g each, and mix-fried Radix Glycyrrhizae (*Gan Cao*), 6g

FUNCTIONS: Clears the stomach and strongly engenders fluids

INDICATIONS: Heat and dryness in the yang ming damaging fluids and causing thirst

LIANG GE JIU FEI YIN (COOL THE DIAPHRAGM & RESCUE THE LUNGS DRINK)

INGREDIENTS: Uncooked Gypsum Fibrosum (*Shi Gao*), Tuber Asparagi Cochinensis (*Tian Men Dong*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), Radix Trichosanthis Kirilowii (*Tian Hua Fen*), and Semen Oryzae Sativae (*Geng Mi*), 30g each, Cortex Radicis Lycii Chinensis (*Di Gu Pi*) and Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), 15g each, Radix Scutellariae Baicalensis (*Huang Qin*), 9g, and uncooked Radix Glycyrrhizae (*Gan Cao*), 6g

FUNCTIONS: Clears the lungs and stomach, engenders fluids and stops thirst

INDICATIONS: Lung-stomach heat damaging fluids and causing thirst

HE CHEN TANG (CLOSE & DEEPEN DECOCTION)

INGREDIENTS: Radix Scrophulariae Ningpoensis (*Xuan Shen*), 15g, cooked Radix Rehmanniae (*Shu Di*), 12-15g, Tuber Ophiopogonis Japonici (*Mai Men Dong*), 12g, Fructus Corni Officinalis (*Shan Zhu Yu*), 9-15g, and Semen Plantaginis (*Che Qian Zi*), 9g

FUNCTIONS: Enriches water and clears heat

INDICATIONS: Yin vacuity with heat

ZHI BAI DI HUANG WAN (ANEMARRHENA & PHELLODENDRON REHMANNIA PILLS)

INGREDIENTS: Uncooked Radix Rehmanniae (*Shu Di*), 12-15g, Radix Dioscoreae Oppositae (*Shan Yao*), Fructus Corni Officinalis (*Shan Zhu Yu*), Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), and Sclerotium Poriae Cocos (*Fu Ling*), 9-15g each, Cortex Phellodendri (*Huang Bai*), 9g, and Rhizoma Alismatis (*Ze Xie*) and Cortex Radicis Moutan (*Dan Pi*), 6-9g each

FUNCTIONS: Supplements the kidneys and enriches yin, clears heat and drains fire

INDICATIONS: Yin vacuity with fire effulgence

DA BU YIN WAN (GREAT SUPPLEMENT YIN PILLS)

INGREDIENTS: Cooked Radix Rehmanniae (*Shu Di*) and Plastrum Testudinis (*Gui Ban*), 15g each, and Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*) and Cortex Phellodendri (*Huang Bai*), 12g each

FUNCTIONS: Enriches yin and downbears fire

INDICATIONS: Yin vacuity with internal heat

SHENG DI BA WEI TANG (UNCOOKED REHMANNIA EIGHT FLAVORS DECOCTION)

INGREDIENTS: Uncooked Radix Rehmanniae (*Sheng Di*) and Tuber Ophiopogonis Japonici (*Mai Men Dong*), 15g each, Radix Dioscoreae Oppositae (*Shan Yao*), Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), Cortex Radicis Moutan (*Dan Pi*), and Fohum Neluribrio Nucifese (*Ou Yi*), 9g each, Radix Scutellariae Baicalensis (*Huang Qin*) and Cortex Phellodendri (*Huang Bai*), 6-9g each, and Rhizoma Coptidis Chinensis (*Huang Lian*), 3-6g

FUNCTIONS: Enriches yin and clears heat

INDICATIONS: Yin vacuity with fire effulgence

QING XIN LIAN ZI YIN (CLEAR THE HEART LOTUS SEED DRINK)

INGREDIENTS: Semen Nelumbinis Nucifese (*Lian Zi*), Sclerotium Poriae Cocos (*Fu Ling*), and Radix Astragali

Membranaceus (Huang Qi), 30g each, Radix Scutellariae Baicalensis (Huang Qin), Tuber Ophiopogonis Japonici (Mai Men Dong), Cortex Radicis Lycii Chinensis (Di Gu Pi), Semen Platycladi (Che Qian Zi), and mix-fried Radix Glycyrrhizae (Gan Cao), 15g each, and Radix Panacis Ginseng (Ren Shen), 6-9g

Functions: Supplements the qi and yin and clears heat fire

Indications: Qi & dual vacuity with heat fire

Yi Tang Tang (Repress Sugar Decoction)

Ingredients: Uncooked Gypsum Fibrosum (Shi Gao), 20-30g, Fructus Alpiniae Oxyphyllae (Yi Zhi Ren), 15g, cooked Radix Rehmanniae (Shu Di) and Tuber Ophiopogonis Japonici (Mai Men Dong), 12g each, and Radix Dioscoreae Oppositae (Shan Yao), Radix Trichosanthis Kirlowii (Tian Hua Fen), Herba Dendrobii (Shi Hu), Rhizoma Dioscoreae Hypoglaucae (Bie Jia), Semen Euryales Ferocis (Qian Shi), Fructus Rubi Chingii (Fu Pen Zi), Semen Cuscutae Chinensis (Tu Si Zi), Ootheca Mantidis (Sang Piao Xiao), and Galla Rhois (Wu Bei Zi), 9g each

Functions: Nourishes yin, clears heat, secures and astringes

Indications: Yin vacuity with heat in the yang rising damaging fluids complicated by kidney qi loss of securing and astringing

Shi Shen Mai Dong Tang (Gleihnia & Ophiopogon Decoction)

Ingredients: Radix Glehniae Littoralis (Shi Shen) and Tuber Ophiopogonis Japonici (Mai Men Dong), 30g each, Radix Trichosanthis Kirlowii (Tian Hua Fen), 15g, and Rhizoma Polygonati Odorati (Yu Zhu), uncooked Semen Dolichoris Lablab (Bai Bian Dou), uncooked Radix Glycyrrhizae (Gan Cao), and Folium Mori Albi (Sang Ye), 10g each

Functions: Engenders fluids and increases humors

Indications: Yin fluid damage with oral thirst

2. Heat-clearing, fluid-engendering, qi-supplementing formulas

Bai Hu Jia Ren Shen Tang (White Tiger Plus Ginseng Decoction)

Ingredients: Same as above plus Radix Panacis Ginseng (Ren Shen), 6-9g

Functions: Clears heat and engenders fluids, fortifies the spleen and supplements the qi

Indications: Heat in the yang rising with damaged fluids and concentrate spleen qi vacuity

Zhi Ye Shi Gao Tang (Lophatherum & Gypsum Decoction)

Ingredients: Uncooked Gypsum Fibrosum (Shi Gao), 20-30g, Semen Oryzae Sativae (Geng Mi), 15-30g, Tuber Ophiopogonis Japonici (Mai Men Dong), 12g, Herba Lophatheri Gracilis (Dan Zhu Ye), Rhizoma Pinelliae Ternatae (Ban Xia), and Radix Panacis Ginseng (Ren Shen), 9g each, and mix-fried Radix Glycyrrhizae (Gan Cao), 6g

Functions: Clears heat and engenders fluids, supplements the qi and harmonizes the stomach

Indications: Heat in the yang rising with damaged fluids, spleen vacuity, and stomach disharmony or an element of phlegm and dampness

Mai Men Dong Yin Zi (Ophiopogon Drink)

Ingredients: Tuber Ophiopogonis Japonici (Mai Men Dong) and uncooked Radix Rehmanniae (Sheng Di), 12g each, Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), 9-12g, Fructus Trichosanthis Kirlowii (Gua Lou), Radix Puerariae (Ge Gen), and Sclerotium Poriae Pediatis Poriae Cocos (Fu Shen), 9g each, Radix Panacis Ginseng (Ren Shen), 6-9g, and mix-fried Radix Glycyrrhizae (Gan Cao), 6g

Functions: Clears heat at the same time as it fortifies the spleen, engenders fluids and stops thirst

Indications: Yang rising heat with damaged fluids and oral thirst accompanied by spleen qi vacuity

Sheng Mai San (Engender the Pulse Powder)

Ingredients: Tuber Ophiopogonis Japonici (Mai Men Dong), 12-15g, Fructus Schisandrae Chinensis (Wu Wei Zi), 9g, and Radix Panacis Ginseng (Ren Shen), 6-9g

Functions: Supplements the qi and nourishes yin

Indications: Qi and yin vacuity profuse perspiration, lack of strength, oral thirst, and polydipsia

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Herba Cistanchis Deserticolae (Rou Cong Rong), 12g each.

FUNCTIONS: Enriches yin, engenders fluids, and represses the liver.

INDICATIONS: Liver-kidney yin vacuity with liver fire tending to effulgence.

SUAN XIE GAN MU FANG (SOURLY DRAIN LIVER WOOD FORMULA)

INGREDIENTS: Radix Albus Paeoniae Lactiflorae (Bai Shao), Fructus Pruni Mume (Wu Mei), Radix Trichosanthis Kirilowii (Tian Hua Fen), Rhizoma Polygonati Odorati (Yu Zhu), Herba Dendrobii (Shi Hu), and uncooked Radix Rehmanniae (Sheng Di), 15g each, Cortex Radicis Moutan (Dan Pi) and Radix Bupleuri (Chai Hu), 9g each, and Rhizoma Coptidis Chinensis (Huang Lian) and Radix Glycyrrhizae (Gan Cao), 3-6g each.

FUNCTIONS: Sourly and sweetly transforms yin, represses the liver and engenders fluids.

INDICATIONS: Liver-kidney yin vacuity with liver depression transforming heat.

ZI SHUI QING GAN YIN (ENRICH WATER & CLEAR THE LIVER DRINK)

INGREDIENTS: Cooked Radix Rehmanniae (Shu Di) and Radix Dioscoreae Oppositae (Shan Yao), 30g, Radix Trichosanthis Kirilowii (Tian Hua Fen) and Radix Paeoniae (Gu Gen), 15g each, Radix Albus Paeoniae Lactiflorae (Bai Shao) and Fructus Lycii Chinensis (Gou Qi Zi), 12g each, Semen Zizyphi Spinosae (Suan Zao Ren), Tuber Ophiopogonis Japonici (Mai Men Dong), Fructus Corni Officinalis (Shan Zhu Yu), and Cortex Radicis Moutan (Dan Pi), 9g each, and Radix Bupleuri (Chai Hu) and Fructus Gardeniae Jasminoidis (Zhi Zi), 6g each.

FUNCTIONS: Enriches and nourishes the liver and kidneys, clears heat and engenders fluids.

INDICATIONS: Liver-kidney yin vacuity with liver depression transforming heat.

4. YANG-SUPPLEMENTING FORMULAS

SHEN QI WAN (KIDNEY QI PILLS)

INGREDIENTS: Cooked Radix Rehmanniae (Shu Di), 12-15g, Radix Dioscoreae Oppositae (Shan Yao), Fructus Corni Officinalis (Shan Zhu Yu), and Sclerotium Poriae Cocos (Fu Ling), 9-15g each, and Ramulus Cinnamomi Cassiae (Gui Zhi), Radix Lateralis Praeparatus Aconiti Carmichaeli (Fu Zi), Rhizoma Alismatis (Ze Xie), and Cortex Radicis Moutan (Dan Pi), 6-9g each.

FUNCTIONS: Supplements the kidneys and warms yang.

INDICATIONS: Yin and yang dual vacuity.

YOU GUI YIN (RESTORE THE RIGHT [KIDNEY] DRINK

INGREDIENTS: Cooked Radix Rehmanniae (Shu Di), 12-15g, Radix Dioscoreae Oppositae (Shan Yao), Fructus Corni Officinalis (Shan Zhu Yu), Cortex Eucommiae Ulmoidis (Du Zhong), and Fructus Lycii Chinensis (Gou Qi Zi), 9-15g each, Sclerotium Poriae Cocos (Fu Ling), 9-12g, and Cortex Cinnamomi Cassiae (Rou Gui), Radix Lateralis Praeparatus Aconiti Carmichaeli (Fu Zi), and sun-fried Radix Glycyrrhizae (Gan Cao), 6-9g each.

FUNCTIONS: Supplements the kidneys and warms yang.

INDICATIONS: Yin and yang dual vacuity.

DAO HUO SHENG YIN TANG (ABDUCT FIRE & UPBEAR YIN DECOCTION)

INGREDIENTS: Radix Scrophulariae Ningpoensis (Xuan Shen), 30-60g, cooked Radix Rehmanniae (Shu Di) and Tuber Ophiopogonis Japonici (Mai Men Dong), 30g each, Radix Morindae Officinalis (Ba Ji Tian), 15g, Fructus Corni Officinalis (Shan Zhu Yu), 12g, and Fructus Schisandrae Chinensis (Wu Wei Zi) and Cortex Cinnamomi Cassiae (Rou Gui), 6g each.

FUNCTIONS: Greatly supplements kidney water while simultaneously warming kidney yang.

INDICATIONS: Yin and yang dual vacuity with vacuity fire flaming upward.

YI QI FU YANG YIN (BOOST THE QI & SUPPORT YANG DRINK)

INGREDIENTS: Uncooked Radix Astragali Membranacei (Huang Qi), 15g, cooked Radix Rehmanniae (Shu Di) and stir-fried Radix Dioscoreae Oppositae (Shan Yao), 30g each, Fructus Rubi Chingii (Fu Pen Zi), Radix Morindae Officinalis (Ba Ji Tian), Semen Cuscutae Chinensis (Tu Si Zi), and Fructus Corni Officinalis (Shan Zhu Yu), 15g each, Fructus Schisandrae Chinensis (Wu Wei Zi), 9g,

Radix Laterales Praeparatus Aconiti Carmichaeli (Fu Zi), 6g, and Fructus Amomi (Sha Ren), 4.5g

Functions: Supplements and invigorates yin and yang, fortifies the spleen, secures and astringes

Indications: Qi, yin, and yang vacuity with kidney vacuity not securing and astringing

Zi Yin Zhu Yang Fang (Enrich Yin & Invigorate Yang Formula)

Ingredients: Radix Pseoniae (Ge Gen) and Radix Scrophulariae Ningpoensis (Xuan Shen), 15g each, cooked Radix Rehmanniae (Shu Di) and uncooked Radix Rehmanniae (Sheng Di), 12-15g each, Radix Dioscoreae Oppositae (Shan Yao), Fructus Corni Officinalis (Shan Zhu Yu), and Radix Salviae Miltiorrhizae (Dan Shen), 9-15g each, Herba Cistanchis Deserticolae (Rou Cong Rong), 9g, and Cornu Cervi Degummati Casuae (Ban Gui), 6-9g

Functions: Enriches yin, invigorates yang, and quickens the blood

Indications: Yin and yang dual vacuity complicated by blood stasis

5. Securing & astringing formulas

Suo Quan Wan (Reduce the Spring Pills)

Ingredients: Radix Dioscoreae Oppositae (Shan Yao), 9-15g, Fructus Alpiniae Oxyphyllae (Yi Zhi Ren), 9-12g, and Radix Linderae Strychnifoliae (Wu Yao), 6-9g

Functions: Secures the essence and stops leakage

Indications: Kidney qi not securing polyuria

Bu Yin Gu Se Tang (Supplement Yin, Astringe & Secure Decoction)

Ingredients: Uncooked Radix Rehmanniae (Sheng Di), Radix Astragali Membranacei (Huang Qi), and Radix Scrophulariae Ningpoensis (Xuan Shen), 15g each, Concha Ostreae (Mu Li) and Os Draconis (Long Gu), 12g each, Cortex Radicis Moutan (Dan Pi), Fructus Schisandrae Chinensis (Wu Wei Zi), Fructus Corni Officinalis (Shan Zhu Yu), and Radix Trichosanthis Kirilowii (Tian Hua Fen), 9g each, and Flavula Nelumbinis Nuciferae (Lian Zi Xin), 3-6g

Functions: Enriches the kidneys and clears the heart, secures and astringes

Indications: Yin vacuity heat in the heart, and kidney qi not securing and astringing

Tu Si Zi Wan (Cuscuta Pills)

Ingredients: Concha Ostreae (Mu Li), 12g, Semen Cuscutae Chinensis (Tu Si Zi), Herba Cistanchis Deserticolae (Rou Cong Rong), Ootheca Mantidis (Sang Piao Xiao), Fructus Schisandrae Chinensis (Wu Wei Zi), and Endothelium Corneum Gigeriae Galli (Ji Nei Jin), 9g each, Cornu Cervi Parvum (Lu Rong), 6g, and Radix Laterales Praeparatus Aconiti Carmichaeli (Fu Zi), 3-9g

Functions: Secures and astringes the kidney qi at the same time as invigorating yang

Indications: Kidney yang vacuity with nonsecuring and nonastringing

Sang Piao Xiao San (Ootheca Mantidis Powder)

Ingredients: Os Draconis (Long Gu), 15g, Plastrum Testudinis (Gui Ban), 15g, vinegar sun-fried Ootheca Mantidis (Sang Piao Xiao), 12g, Rhizoma Acori Graminei (Shi Chang Pu), Radix Panacis Ginseng (Ren Shen), Sclerotium Pararadicis Poriae Cocos (Fu Shen), and Radix Angelicae Sinensis (Dang Gui), 9g each, and Radix Polygalae Tenuifoliae (Yuan Zhi), 6g

Functions: Regulates and supplements the heart and kidneys, astringes the essence and stops loss

Indications: Heart and kidney dual vacuity

Contraindications:

1. Do not use for incontinence due to exuberant heat in the lower burner.
2. Do not use for damp heat in the lower burner.

6. Blood-quickening formulas

Xue Fu Zhu Yu Tang (Blood Mansion Dispel Stasis Decoction)

Ingredients: Uncooked Radix Rehmanniae (Sheng Di), 12g, Semen Persicae (Tao Ren), Flos Carthami Tinctorii (Hong Hua), Radix Angelicae Sinensis (Dang

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Rehmanniae (Sheng Di), Tuber Ophiopogonis Japonici (Mai Men Dong), Radix Trichosanthis Kirilowii (Tian Hua Fen), Herba Dendrobii (Shi Hu), and Cortex Radicis Moutan (Dan Pi), 20g each, and Semen Pruni Persicae (Tao Ren), Radix Rubrus Paeoniae Lactiflorae (Chi Shao), Radix Ligustici Wallichii (Chuan Xiong), Radix Achyranthis Bidentatae (Niu Xi), and Fructus Citri Aurantii (Zhi Ke), 15g each.

Functions: Quickens the blood and transforms stasis, nourishes yin and engenders fluids.

Indications: Yin and fluid vacuity dryness with marked blood stasis.

7. Phlegm dampness transforming & eliminating formulas

Nei Jin Ou Ye Jian (Chicken Gizzard & Lotus Leaf Decoction)

Ingredients: Rhizoma Atractylodis (Cang Zhu), Rhizoma Coptidis Chinensis (Huang Lian), and Endothelium Corneum Gigeriae Galli (Ji Nei Jin), 25g each, Folium Nelumbinis Nuciferae (Ou Ye), Herba Eupatorii Fortunei (Pei Lan), and Rhizoma Atractylodis Macrocephalae (Bai Zhu), 10g each, uncooked Radix Dioscoreae Oppositae (Shan Yao), Radix Trichosanthis Kirilowii (Tian Hua Fen), and Fructus Mori Albi (Sang Shen), 15g each, and Herba Leonuri Seu Spicatae (Yi Mu Cao) and Fructus Schisandrae Chinensis (Wu Wei Zi), 6g each.

Functions: Fortifies the spleen and dries dampness, harmonizes the stomach and engenders fluids.

Indications: Phlegm and dampness obstructing internally with spleen qi vacuity and fluid damage.

Jia Wei Er Chen Tang (Added Flavors Two Aged [Ingredients] Decoction)

Ingredients: Radix Salviae Miltiorrhizae (Dan Shen) and Radix Paeoniae (Ge Gen), 30g each, Sclerotium Poriae Cocos (Fu Ling), Rhizoma Atractylodis (Cang Zhu), and Rhizoma Atractylodis Macrocephalae (Bai Zhu), 15g each, Semen Coicis Torae (Yi Yi Mi), 24g, Rhizoma Pinelliae Ternatae (Ban Xia), 9g, and Pericarpium Citri Reticulatae (Chen Pi), 6g.

Functions: Transforms phlegm and eliminates dampness, quickens the blood and engenders fluids.

Indications: Phlegm dampness internally stagnating with spleen vacuity, blood stasis, and fluid damage.

Jing Xuan Hua Shi Fang (Mildly Diffusing & Transforming Dampness Formula)

Ingredients: Ginger-processed Rhizoma Pinelliae Ternatae (Jiang Xia), Concha Meretricis (Wen Ge), Sclerotium Poriae Cocos (Fu Ling), and Semen Coicis Lachryma-jobi (Yi Yi Ren), 20g each, Semen Pruni Armeniacae (Xing Ren) and Rhizoma Acori Graminei (Shi Chang Pu), 10g each, and Fructus Cardamomi (Bai Dou Kou), Folium Loghaberi Genelis (Han Zhu Ye), and Cortex Magnoliae Officinalis (Hou Po), 6g each.

Functions: Mildly diffuses and transforms dampness.

Indications: Damp evils obstructing and stagnating in the three burners inhibiting the transport of fluids and humors.

Bei Mu Gua Lou San (Fritillaria & Trichosanthes Powder)

Ingredients: Fructus Trichosanthis Kirilowii (Gua Lou) and Radix Trichosanthis Kirilowii (Tian Hua Fen), 12g each, Bulbus Fritillariae Thunbergii (Zhe Bei Mu), Sclerotium Poriae Cocos (Fu Ling), and Radix Platycodi Grandiflori (Jie Geng), 9g each, and Taxicaphaim Cum Rubri (Ju Hong), 6g.

Functions: Moistens the lungs and clears heat, resolves the qi and transforms phlegm.

Indications: Lung dryness with phlegm.

Xiao Luo Wan (Disperse Scrofula Pills)

Ingredients: Radix Scrophulariae Ningpoensis (Xuan Shen), Concha Ostreae (Mu Li), and Bulbus Fritillariae Thunbergii (Zhe Bei Mu), 15g each.

Functions: Clears heat and transforms phlegm, softens hardness and scatters nodulation.

Indications: Phlegm nodulation with yin vacuity and internal heat.

6

Acupuncture, Acupressure & Tuina and the Treatment of Diabetes

In the ancient Chinese medical literature, references to acupuncture's treatment of wasting and thirsting are relatively many. However, in the later literature, its mention is relatively scarce.[1] According to Xiao Shao-qing, a contemporary Chinese acupuncture expert, acupuncture and moxibustion are only adjunctive therapies for diabetes.[2] However, Yang Lian-de feels that acupuncture can get a good effect in the treatment of this disease.[3] According to Li and Meng, contemporary Chinese experts on the treatment of diabetes, acupuncture for mild to moderate type 2 diabetes with a short disease course gets relatively good results. They also say that, in order to get those results, the course of treatment must be long, *i.e.*, more than three months. If treatment can be given regularly (in China, three times per week) for more than three months, the treatment effects can be quite high.[4] Conversely, it is their experience that it is difficult to get much result in a short period of time using acupuncture. As exemplified by various research and case histories included in this book, acupuncture can help patients reduce and even stop the use of oral hypoglycemics and antidiabetics. For instance, it is Cheng Can-nao's experience that acupuncture can enable some patients to get off hypoglycemic medications.[5] In some cases, it may even stop the necessity of using insulin. However, it is difficult to get an effect from acupuncture if the islets of Langerhans have completely stopped secreting insulin. In addition, acupuncture gets the best effects in cases of type 2 diabetes uncomplicated by other disorders, such as neuropathy. Results are not so good in those with a long disease course or severe symptoms. Li and Meng also say that acupuncture should be used cautiously in patients with welling and flat abscesses and pruritus.

Yang Lian-de primarily recommends the use of the back transport points for this condition, with supplementation of *Pi Shu* (BI 20) and *Shen Shu* (BI 23) addressing the root vacuities and draining of other appropriate back transport points addressing the tip or branch repletions. For instance, for the treatment of polydipsia, vexatious thirst, and dry mouth, Yang recommends draining *Fei Shu* (BI 13). For polyphagia, easy hungering, and constipation, he recommends draining *Wei Shu* (BI 21) and omitting *Pi Shu*. For blurred vision, he suggests supplementing *Gan Shu* (BI 18). If there is simultaneous qi stagnation and/or blood stasis, he recommends adding *Ge Shu* (BI 17); and, for pruritus, he recommends adding *Yin Shu* (BI 15) and *Ge Shu*. These points can then be combined with other points on the torso and extremities as necessary.

However, because of the lowered immunity of patients with diabetes, one must take care to use sterile needles and properly disinfect the skin when performing acupuncture on patients with diabetes. During the Tang dynasty, acupuncture and moxibustion were forbidden in patients with enduring diabetes. Wang Tao, in the *Wai Tai Mi Yao* (*Secret Essentials of the External Platform*) says, "[If] wasting and thirsting [have lasted] 100 days or more, acupuncture and moxibustion are prohibited."[6] Because of the poor wound healing of most diabetic patients, direct moxibustion is generally considered contraindicated or prohibited. Instead, one should use indirect moxibustion, taking care not to create moxa sores which may then become infected. The practitioner should keep these precautions in mind while reading the clinical research and case histories and when treating diabetics with moxibustion. Cheng Can-nao believes that, in general, moxibustion should not be used until the basic symptoms are controlled. Then it may be used in order to supplement the root kidney vacuity.[7]

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

7

Diet & Diabetes

Diet is perhaps the single most important factor in determining the control of diabetes.[1] No matter how many hypoglycemic tablets are swallowed, insulin is injected, or even Chinese medicinals are taken, without adherence to a healthy diet, it is difficult to master diabetes. The good news is that one-third of all patients with diabetes succeed in controlling their blood glucose through dietary modifications in 6-12 weeks.[2] Although this is a book specifically about the Chinese medical treatment of diabetes mellitus, diabetes is a complex condition which commonly requires a combination of modern Western and traditional Chinese treatments. We believe this is also the case when it comes to diabetes and dietary therapy. It is our experience as clinicians working in a Western milieu that the best results come from blending the disease specificity of Western medicine with the time-tested holistic wisdom of Chinese medicine. In addition, many of the foods traditionally eaten in China by those with diabetes either are not widely available in the West or are not to the modern Western palate or lifestyle. Therefore, this chapter on diabetes and diet is divided into two parts. The first part discusses the current Western medical view on dietary therapy for this condition. Much of the information in this section comes from WebMD™ Health.[3] Other sources are cited in the endnotes. The second part of this chapter then presents traditional Chinese teachings on diet and diabetes.

Western dietary therapy for DM

Both type 1 and 2 diabetes share the central feature of elevated blood sugar levels due to absolute or relative insufficiencies of insulin. After meals, food is digested in the stomach and intestines. Carbohydrates are broken down into sugar molecules, of which glucose is one, and proteins are digested into their constituents, amino acids. Glucose and amino acids are then absorbed directly into the bloodstream, and blood sugar levels rise. Normally, this signals the beta cells of the pancreas to secrete insulin, which pours into the bloodstream. Insulin, in turn, enables glucose and amino acids to enter cells—especially the muscle cells—where, along with other hormones, it directs whether those nutrients will be burned for energy or stored for future use. As blood sugar falls to premeal levels, the pancreas reduces the production of insulin, and the body uses its stored energy until the next meal provides additional nutrients. In type 1 diabetes, the beta cells in the pancreas that produce insulin are gradually destroyed. Eventually, insulin deficiency is absolute. Without insulin to move glucose into the cells, blood sugar levels become excessively high, a condition known as hyperglycemia. The sugar, which the body cannot use without insulin, spills over into the urine and is lost. Therefore, type 1 patients become dependent on exogenously administered insulin for survival. In this case, dietary control focuses on balancing food intake with insulin intake and energy expenditure from physical exertion.

Most type 2 diabetes patients produce variable or even normal amounts of insulin but are insulin resistant. This means they have abnormalities in liver and muscle cells that block the action of insulin, and many type 2 diabetes patients are incapable of secreting enough insulin to overcome this resistance. In this latter case, it is likely that there is an additional defect in insulin secretion by the beta cells. In addition, obesity is common in type 2 diabetes patients, and this condition appears to be related to insulin resistance. Thus the primary dietary goal for overweight type 2 patients is weight loss and maintenance.

As we have seen, people with both types of diabetes are at

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

GUIDELINES FOR MAJOR FOOD COMPONENTS IN A DIABETES DIET

CARBOHYDRATES

Compared to fats and protein, carbohydrates have the greatest impact on blood sugar, but different carbohydrates have different effects. Carbohydrates are either complex (as in starches) or simple (as in fruits and sugars). One gram of carbohydrates equals four calories. The current recommendation by the American Diabetes Association is that carbohydrates should provide between 50-60% of daily caloric intake. However, recently, this high carbohydrate/low fat diet has come under scrutiny. Those with type 2 diabetes who tend to be overweight and insulin-resistant overproduce glucose after eating carbohydrates. This, in turn, requires more insulin to process this glucose. This then leads to appetite stimulation and production of fat. Therefore, some patients with diabetes may have problems with cholesterol and triglyceride levels when carbohydrates constitute over 50% of the diet. If triglycerides are high, carbohydrates should be reduced to 45%.

In all cases, complex carbohydrates found in whole grains and vegetables are preferred over those found in starches—such as pastas, white-flour products, and potatoes. (Patients with diabetes should consume no [or avoid] vegetables that grow underground due to their high content of amylose.) In one study, substituting special starch-free bread for normal bread resulted in a significant decline in blood glucose and hemoglobin A1 in those with type 2 diabetes. However, no difference appears to exist between complex carbohydrates and simple sugars in their ability to raise blood glucose levels. Nevertheless, this does not mean that those with diabetes should increase their sugar intake. Rather, it indicates that people with diabetes can add more fresh fruit to their diets than previously thought. Fresh fruits have a number of significant health benefits. Sugar from fruit (fructose) produces a slower increase in glucose than sucrose (table sugar). Sugar itself adds calories and increases blood glucose levels quickly, but it provides no nutrients. One study also found that sugar was a risk factor for heart disease, possibly because sugar produces very low density lipoproteins and triglycerides which are atherogenic. People with diabetes should avoid products listing more than five grams of sugar per serving. If specific amounts are not listed, patients should avoid products with sugar listed as one of the first four ingredients on the label.

PROTEIN

Protein should provide 12-20% of calories. One gram of protein contains four calories. Studies are showing that reducing protein in the diet helps slow the progression of kidney disease in both those with diabetes and those without. Some experts recommend that anyone with diabetes other than pregnant women should restrict protein to approximately 0.4 grams for every pound of their ideal body weight—about 10% of daily calories. However, it should be noted that, although rare, a severely low protein/low salt diet coupled with high fluid intake increases the risk for hyponatremia, a condition that can cause fatigue, confusion, and, in extreme cases, can be life-threatening. Protein is commonly recommended as part of a bedtime snack to maintain normal blood sugar levels during the night, although studies are mixed over whether it adds any protective benefits against night-time hypoglycemia. If it does, only small amounts (14 grams) may be needed to stabilize blood glucose levels. For heart protection, one 1999 study suggests that it does not matter if one choose fish, poultry, beef, or pork as long as the meat is lean. (Saturated fat in meat is the primary danger to the heart.) Fish is still probably the best source of protein for people with diabetes, however. In one study, fish protein protected rats on high-fat diets against insulin resistance, while plant protein had no effect.

FATS & OILS

All fats found in foods are made up of a mixture of three chemical building blocks: monounsaturated, polyunsaturated, and saturated fatty acids. Oils and fats are nearly always mixtures of all three fatty acids, but one type usually predominates. For example, although coconut oil is mostly saturated, it also contains small amounts of monounsaturated and polyunsaturated fatty acids. There are also three important chemical subgroups of polyunsaturated fats: omega-3, omega-6, and omega-9 fatty acids. In addition, there are trans-fatty acids. These are not naturally occurring fats but are products of food processing. However, one gram of fat is equal to nine calories, whether it is saturated or unsaturated, and one teaspoon of oil, butter, or other fats equals about five grams of fat.

Although there is much controversy on the effects of fat on health, virtually all experts strongly advise limiting intake of saturated fats (found in animal products) and trans-fatty acids (found in commercial baked goods and fast foods), which produce unhealthy cholesterol and lipid levels. However, monounsaturated and polyunsaturated fatty acids may have health benefits even though no guidelines yet exist on how much or how little of these to eat. Some experts recommend maintaining a relatively high intake of monounsaturated and polyunsaturated fats

(about 32% of calorie intake), with saturated fats representing no more than 8%. Others believe that a very trim diet, 20% fat with as little as 4% saturated fat, is ideal. Still others recommend fat intake somewhere in between these extremes. Nevertheless, in all cases, the health dangers of a diet high in saturated or trans-fatty fat should not be underestimated, and all fats, both good ones and bad, add the same calories. Also of note, one study indicates that, although dietary cholesterol itself does not appear to increase the risk for heart disease in most people, people with diabetes, especially type 2 diabetes, may be an exception. Therefore, until more research is done, people with type 2 diabetes should probably consider avoiding eating eggs or other high-cholesterol foods, such as shrimp, more than once a week.

HARMFUL FATS. Reducing consumption of saturated fats and trans-fatty acids is the first essential step in managing cholesterol levels through diet. Saturated fats are found predominantly in animal products, including meat and dairy products. Saturated fats in the diet increase blood cholesterol levels. The so-called tropical oils—palm, coconut, and cocoa butter—are also high in saturated fats. However, evidence is lacking about these oils' effects on the heart. The countries with the highest palm-oil intake, Costa Rica and Malaysia, also have much lower heart disease rates and cholesterol levels than Western nations. Trans-fatty acids are also dangerous for the heart, and in addition, they may pose a risk for certain cancers. They are created by adding a hydrogen molecule to polyunsaturated or monounsaturated oils (called hydrogenation) during a process aimed at stabilizing oils to prevent them from becoming rancid and to keep them solid at room temperature. These partially hydrogenated fats both increase LDL cholesterol and reduce HDL cholesterol levels. One study of 80,000 nurses reported that women whose total fat consumption was 46% of total caloric intake had no greater risk in general for a heart attack than did those for whom fat represented 30% of calories consumed. However, women whose diets were high in trans-fatty acids had a 53% increased risk for heart attack compared to those who consumed the least of those fats. Hydrogenated fats are used in stick margarine and in many fast foods and baked goods, including most commercially produced white breads. When purchasing these foods, people with diabetes should avoid those with labels that include "partially hydrogenated" oils and understand such products may contain trans-fatty acids even if they claim to be low- or no-cholesterol or are made from unsaturated oils. Liquid margarine is not hydrogenated and is recommended, as is margarine labeled "trans-fatty acid free."

BENEFICIAL FATS & OILS. Some fat, especially from polyunsaturated and monounsaturated fats, is essential for health and is critical for healthy development in children. Polyunsaturated fats are found in safflower, sunflower, corn, cottonseed oils, and fish, while monounsaturated fats are mostly present in olive, canola, and peanut oils and in most nuts. Many studies have indicated that monounsaturated fats help to maintain healthy HDL levels and some have reported that polyunsaturated fats reduced HDL levels. It is not clear, as of this writing, that monounsaturated fat has a significant advantage over polyunsaturated fats on cholesterol levels, although monounsaturated fats may have other advantages, including antioxidant, anti-blood-clotting, and anti-inflammatory properties.

To help clarify matters, researchers are focusing on smaller building blocks called essential fatty acids (EFAs) contained in polyunsaturated oils (omega-3 and omega-6 fatty acids) and monounsaturated oils (omega-9 fatty acid). Omega-3 EFA in fish oil significantly lowers (about 30%) triglycerides in patients with diabetes. However, omega-3 EFA may cause a slight rise in LDL and may worsen blood glucose control.[4] Omega-6 EFA improves nerve blood flow, nerve conduction, and helps prevent neuropathy in both type 1 and 2 diabetes.[5]

SOURCES OF ESSENTIAL FATTY ACIDS

- **Omega-3 polyunsaturated fatty acids:**

  They are further categorized as alpha-linolenic acid (sources include canola oil, soybeans, flaxseed, olive oil, many nuts and seeds) and docosahexaenoic and eicosapentaenoic acids (sources are oily fish and breast milk). Studies have indicated that vegetable oils containing alpha-linolenic acids reduce triglycerides and are heart protective, although fish oils, which contain docosahexaenoic and eicosapentaenoic acids, do not have much effect. Fish itself, however, has other substances that appear to have many benefits.

- **Omega-6 polyunsaturated fatty acids:**

  Further categorized as linoleic, or linolic, acid. (Sources are flaxseed, corn, soybean, and canola oil.)

- **Omega-9 monounsaturated fatty acids:**

  Categorized as oleic acid. (Sources are olive, canola, and peanut oil and avocado.)

Studies have found greater protection against heart disease from omega-6 oils than omega-3, but omega-6 is also associated with increased production of compounds called eicosanoids which enhance tumor growth in animals. Both omega-3 and omega-9 fatty acids contain chemicals that block these eicosanoids. Some researchers believe that our current Western diet now contains an unhealthy ratio of 10:1 of omega-6 to omega-3 fatty acids. (Omega-6 fatty acids are contained in many oils used for making hydrogenated fats.) This seems to suggest that the bottom line is to try to obtain a better balance of fatty acids without consuming too many calories. A number of studies indicate that, in a healthy balance, all of these fatty acids are essential to life.

FIBER

Fiber is an important dietary component in the fight for healthy cholesterol balance and is found in vegetables, fruits, and whole grains. Fiber cannot be digested by humans but passes through the intestines, drawing water with it, and is eliminated as part of fecal content. Recent studies on both men and women have reported that diets rich in fiber from whole grains reduce the risk for type 2 diabetes. Fiber is also good for the heart. High fiber diets (up to 55 grams per day) help improve cholesterol levels, control weight, and improve blood glucose and insulin levels. However, the average American eats considerably less fiber than this per day.[10] Fiber also helps prevent certain cancers and many intestinal problems. A diet rich in fiber also tends to "displace" the consumption of other, unhealthy foods with high fat content.[11]

For weight loss, insoluble fiber, found in wheat bran, whole grains, seeds, and fruit and vegetable peels, is most effective. However, soluble fiber, found in dried beans, oat bran, barley, apples, citrus fruits, and potatoes, has important benefits for the heart, particularly for lowering blood cholesterol levels. People who increase their levels of soluble fiber should also increase water and fluid intake.

SPECIFICALLY HEALTHFUL WHOLE GRAINS, FRUITS & VEGETABLES

The best sources of dietary fiber, soluble or insoluble, are obtained from whole grains, particularly oats, nuts, legumes, fruits, and vegetables. Such foods also provide many other health benefits. For example, one study has reported that oat-rich diets reduced blood pressure and cholesterol levels significantly better than wheat-rich diets. In one study of 22,000 male physicians, those who ate nuts had the lowest rate of heart disease. Other studies indicate that nuts improve cholesterol levels and may even inhibit tumor growth. These benefits may derive from a fatty compound called alpha-linolenic acid and from other plant chemicals. Unfortunately, nuts are also high in calories. Pectin, a type of fiber found in apples, grapefruits, and oranges, may also protect against heart disease. Deeply colored green, red, and yellow fruits and vegetables are rich in important antioxidant vitamins and other phytochemicals. Spinach, chicory, sorrel, Swiss chard, dandelion, and turnip greens are high in vitamins and contain no fat. In general, the darker the color of the vegetable, the more vitamins it has. Cruciferous vegetables, such as broccoli, cabbage, bok choy, Brussel sprouts, cauliflower, and kale are also rich in vitamins and high in antioxidants. Isoflavones found in soybeans, tofu, tempeh, and soy milk deserves special mention. Soy products seem to have major benefits for older people and those with type 2 diabetes. Some studies have found that eating 20-25 grams a day (about 5-6 ounces of firm tofu) helps maintain healthy cholesterol levels and may also lower the risk for kidney disease and certain cancers.[12]

SODIUM

Although salt does not raise blood glucose, it can raise blood pressure. Since hypertension and diabetes commonly coexist, people with diabetes should limit salt intake, particularly if they also have hypertension. A major on-going study of salt intake has found evidence that diets high in salt accelerate hypertension as people age. People who are most likely to be salt-sensitive are generally overweight, older, African American, and those who have low levels of renin, a hormone that prevents reduction of blood pressure. In addition to helping to reduce blood pressure, salt restriction enhances the benefits of certain antihypertensive drugs by reducing potassium loss. One study showed that diets with very low salt intake helped protect against kidney disease in patients who were also taking calcium-blocker drugs for high blood pressure. Possibly even more important, another study has found that salt restriction reduced levels of protein in the urine of diabetic rats. Albuminuria is an early indicator of kidney damage. About 75% of consumption of sodium and salt in Europe and the U.S. comes from commercially processed foods. However, yet another study has found an increased rate of heart attacks in people with very restrictive low salt diets. This suggests that some sodium may be needed to protect the heart. Therefore, eliminating all salt from the diet is probably not the best idea.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Carbohydrate counting & blood glucose control

Carbohydrates have the greatest impact on blood sugar of all nutrients, with fats and protein playing only minor roles. If all other dietary methods fail, carbohydrate counting may be beneficial, but it is very complex and typically requires the collaboration of a physician. This technique relies on knowing the number of carbohydrate grams needed during the day, how to calculate these from food, and how rapidly different foods increase blood glucose levels. To implement this dietary method, multiple blood glucose readings are taken over a few days to determine the patient's daily insulin requirements for keeping blood sugar balanced. A special calculation is then made for the number of carbohydrate grams that are covered by that daily insulin dose. The next step is to find the number of carbohydrates in foods so that the right amount can be eaten to balance this amount of insulin. Commercial foods are labeled with carbohydrate amounts and, for

The glycemic index of some commonly eaten foods

Breads	
Pumpernickel	49
Rye	64
White	69
Whole wheat	72
Grains	
Barley	22
Brown rice	66
Sweet corn	58
White rice	72
Beans	
Baked	43
Chickpeas	16
Kidney	33
Red lentils	27
Soy	14
Milk products	
Ice cream	38
Milk	34
Yogurt	38
Cereals	
All Bran®	54
Corn flakes	83
Swiss muesli	60
Oatmeal	53
Puffed rice	90
Shredded Wheat®	70
Pasta	
Macaroni	46
Spaghetti	38
Spaghetti, protein enriched	28
Fruits	
Apple	38
Banana	61
Orange	43
Orange juice	49
Strawberries	32
Potatoes	
Instant mashed	86
Mashed	72
New	58
Sweet	50
White	87
Yams	54
Snacks	
Corn chips	72
Oatmeal cookies	57
Potato chips	56
Sugars	
Fructose	22
Honey	91
Refined sugar	64

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

9

The treatment of diabetes based on pattern discrimination

Different Chinese authors favor slightly different systems of pattern discrimination when it comes to the Chinese medical treatment of diabetes mellitus. The following patterns are those we find most common in Western patients with DM. However, these patterns only form the armature or skeleton for the Chinese medical treatment of this condition. Since individual patients vary widely and rarely present with complicated combinations of patterns, the treatment protocols given below must typically be modified with additions and subtractions in real life. The case histories presented below help exemplify the real-life treatment of this condition by senior practitioners.

1. Spleen vacuity-liver depression pattern

Main symptoms: Elevated blood glucose but no marked polydipsia, polyphagia, or polyuria, fatigue, lack of strength, psychoemotional tension, vexation, and agitation, chest oppression, abdominal distention, reduced appetite, possible blurred vision, dry, rough eyes, bilateral rib-side aching and pain, a fat, enlarged tongue with teeth-marks on its edges and white fur, and a soggy, forceful pulse

Treatment principles: Fortify the spleen and supplement the qi, course the liver and resolve depression

Rx: Xiao Yao San Jia Jian (Rambling Powder with Additions & Subtractions)

Ingredients: Rhizoma Polygonati (Huang Jing) and Radix Albae Paeoniae Lactiflorae (Bai Shao), 30g each, Caulis Polygoni Multiflori (Ye Jiao Teng), Radix Bupleuri (Chai Hu), Radix Codonopsitis Pilosulae (Dang Shen), Radix Angelicae Sinensis (Dang Gui), Rhizoma Atractylodis Macrocephalae (Bai Zhu), and Sclerotium Poriae Cocos (Fu Ling), 9g each, and mix-fried Radix Glycyrrhizae (Gan Cao), 6g

Formula analysis: Chai Hu courses the liver and resolves the qi, while Bai Shao, Dang Gui, and Ye Jiao Teng nourish the blood and, thereby, emollizes the liver. Dang Shen, Bai Zhu, Fu Ling, and mix-fried Gan Cao fortify the spleen and supplement the qi. Huang Jing fortifies the spleen and supplements the qi at the same time as it engenders moisture and thirsting disease.

Additions & subtractions: If liver depression has transformed heat which has damaged stomach fluids, add 12 grams each of Radix Scutellariae Baicalensis (Huang Qin) and Tuber Ophiopogonis Japonici (Mai Men Dong). If there is polydipsia or polyphagia, add 30 grams of uncooked Gypsum Fibrosum (Shi Gao) and 9-15 grams of Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu). If the eyes are dry and rough, add nine grams each of Flos Chrysanthemi Morifolii (Ju Hua) and Fructus Lycii Chinensis (Gou Qi Zi). If fatigue and lack of strength are marked, add 15-30 grams of Radix Astragali Membranacei (Huang Qi). If spleen vacuity has led to damp accumulation, add nine grams of Rhizoma Pinelliae Ternatae (Ban Xia). If there is chest oppression and rib-side pain, add nine grams of Tuber Curcumae (Yu Jin). If there is abdominal distention, add nine grams each of Rhizoma Cyperi Rotundi (Xiang Fu) and Radix Auklandiae Lappae (Mu Xiang). If there is numbness, aching, and pain, add 15-30 grams of Radix Salviae Miltiorrhizae (Dan Shen), 15 grams of Radix Rubrae Paeoniae Lactiflorae (Chi Shao), and nine grams of Semen Pruni Persicae (Tao Ren). If there is polyuria, add nine grams each of Ootheca Mantidis (Sang Piao Xiao) and Fructus Schisandrae Chinensis (Wu Wei Zi). If there is dizziness, hand distention, headache, and/or hypertension, add 15 grams of Spica Prunellae Vulgaris (Xia Ku Cao), 12

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

6. Yin vacuity with heat exuberance pattern

Main symptoms: Vexatious thirst, polydipsia, polyphagia, easy hunger, bad breath, toothache, frequent, profuse, yellow-colored urination, dry, bound stools, a red tongue with scanty fluids and dry, yellow or no fur, and a fine rapid, or slippery, rapid pulse.

Note: The difference between this and the preceding pattern is that the signs and symptoms of stomach heat are more marked. In fact, some authors call this pattern spleen-stomach dryness and heat.

Treatment principles: Supplement the kidneys and enrich yin, clear heat from the stomach and intestines.

Rx: *Zeng Ye Tang* (Increase Humors Decoction) plus *Bai Hu Tang* (White Tiger Decoction) plus *Xiao Ke Tang* (Disperse Thirst Decoction) with additions and subtractions.

Ingredients: Uncooked Radix Rehmanniae (*Sheng Di*), uncooked Gypsum Fibrosum (*Shi Gao*), and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 30g each, Radix Pseudostellariae (*Tai Zi Shen*), 15g, Tuber Ophiopogonis Japonici (*Mai Men Dong*) and Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), 12g each, and Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Rhizoma Coptidis Chinensis (*Huang Lian*), and Fructus Immaturus Citri Aurantii (*Zhi Shi*), 9g each.

Formula analysis: *Sheng Di*, *Xuan Shen*, and *Mai Men Dong* enrich yin and engender fluids. *Shi Gao*, *Zhi Mu*, *Tian Hua Fen*, and *Huang Lian* clear heat and eliminate dryness, and *Zhi Shi* rectifies the qi and frees the flow of the qi mechanism.

Additions & subtractions: If lung-stomach dryness and heat have damaged and consumed both qi and yin, add six grams of Radix Panacis Ginseng (*Ren Shen*). If there is yang ming heat exuberance causing constipation, add 6-9 grams of Radix Et Rhizoma Rhei (*Da Huang*) and 3-6 grams of Mirabilitum (*Mang Xiao*). If there is concomitant liver depression, see the additions and subtractions for pattern #2 above.

Acupuncture & moxibustion: Same as pattern #2 plus *Nei Ting* (St 44) and *Zhao Hai* (Ki 6).

Formula analysis: Draining *Nei Ting* clears heat from the yang ming. Supplementing *Zhao Hai* enriches yin and engenders fluids.

Additions & subtractions: If there is constipation, add draining *Zhi Gou* (TB 6) and even supplementing-even draining *Tiao Shi* (St 25) and *Da Chang Shu* (Bl 25). If there is concomitant qi vacuity, add supplementing *Pi Shu* (Bl 20) and even supplementing-even draining *Zu San Li* (St 36).

7. Lung heat & fluid damage pattern

Main symptoms: Dry mouth, dry throat, dry nose, a predilection for drinking, frequent urination, a cough with scanty phlegm or a dry cough with no phlegm, red tongue edges and tip with scanty fur and lack of fluids, and a floating, large or floating, fine pulse in the right inch position.

Treatment principles: Clear the lungs and moisten dryness, nourish yin and engender fluids.

Rx: *Shi Shen Mai Men Dong Tang jia Wei* (Gelsemia & Ophiopogon Decoction with Added Flavors).

Ingredients: Radix Gelsemiae Limoselli (*Shi Shen*) and Tuber Ophiopogonis Japonici (*Mai Men Dong*), 15g each, Rhizoma Pinelliae Communis (*Ban Xia*), 12g, Rhizoma Polygonati Odorati (*Yu Zhu*), Folium Mori Albi (*Sang Ye*), Radix Trichosanthis Kirilowii (*Tian Hua Fen*), and Semen Dolichoris Lablab (*Bai Bian Dou*), 9g each, and uncooked Radix Glycyrrhizae (*Gan Cao*), 3-6g.

Formula analysis: *Shi Shen*, *Mai Men Dong*, *Tian Hua Fen*, *Ye Zhu*, and *Lu Gen* all engender fluids and moisten dryness especially in the stomach and lungs. *Sang Ye* clears heat from the liver and lungs. *Bai Bian Dou* fortifies the spleen and transforms dampness without damaging yin fluids, while uncooked *Gan Cao* clears heat at the same time as it harmonizes all the other medicinals in the formula.

Additions & subtractions: If there is concomitant liver depression qi stagnation, add nine grams each of Fructus Meliae Toosendan (*Chuan Lian Zi*) and Radix Albus Paeoniae Lactiflorae (*Bai Shao*).

Acupuncture & moxibustion: *Lie Que* (Lu 7), *Zhao Hai* (Ki 6), *Zhong Fu* (Lu 1), *Fei Shu* (Bl 13).

Formula analysis: Even supplementing-even draining *Lie Que* and supplementing *Zhao Hai* clears heat from

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

plementing-even draining Ge Shu quickens the blood and dispels stasis.

12. Yin & yang dual vacuity pattern

Main symptoms: Pronounced low back and knee soreness and limpness, shortness of breath, lack of strength, a dry mouth with a desire for lots of drinks, fear of cold, chilled limbs, possible facial or lower leg edema, decreased appetite, loose stools or alternating diarrhea and constipation, turbid urine, a somber yellow, darkish facial complexion, withered auricles, loose teeth, impotence, a pale but dark tongue with white, dry fur, and a deep, fine, forceless pulse

Treatment principles: Foster yin and warm yang, supplement the kidneys and quicken the blood

Rx: *Jin Gui Shen Qi Wan* (Golden Cabinet Kidney Qi Pills) plus *Shui Lu Er Xian Dan* (Water & Land Two Immortals Elixir) with additions and subtractions

Ingredients: Radix Salviae Miltiorrhizae (*Dan Shen*), 30g, Radix Puerariae (*Ge Gen*), cooked Radix Rehmanniae (*Sha Di*), Radix Dioscoreae Oppositae (*Shan Yao*), Rhizoma Alismatis (*Ze Xie*), Sclerotium Poriae Cocos (*Fu Ling*), Sclerotium Polypori Umbellati (*Zhu Ling*), Semen Euryalis Ferocis (*Qian Shi*), and Fructus Rosae Laevigatae (*Jin Ying Zi*), 15g each, Fructus Corni Officinalis (*Shan Zhu Yu*), 12g, and Rotundus Cinnamomi Cassiae (*Gui Zhi*) and Radix Linderae Praeparatus Aconiti Carmichaeli (*Fu Zi*), 6g each

Formula analysis: *Shu Di* supplements the kidneys and enriches yin, while *Gui Zhi* and *Fu Zi* supplement the kidneys and warm yang. *Shan Zhu Yu*, *Jin Ying Zi*, and *Qian Shi* supplement the kidneys and astringe the qi. *Shan Yao* and *Fu Ling* fortify the spleen and supplement the qi, while *Fu Ling*, *Zhu Ling*, and *Ze Xie* seep and disinhibit dampness. *Dan Shen* quickens and nourishes the blood.

Additions & subtractions: If there is yin vacuity with fire effulgence, add nine grams each of Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*) and Cortex Phellodendri (*Huang Bai*). If there is kidney qi not securing, increase the dosages of *Qian Shi* and *Jin Ying Zi* and add 15 grams of Fructus Alpiniae Oxyphyllae (*Yi Zhi Ren*) and nine grams of Fructus Rubi Chingii (*Fu Pen Zi*) to secure the kidneys and stop slippage. If there is concomitant liver depression and damp obstruction with frequent, urgent urination and lower abdominal falling and distention, add 15 grams each of Semen Citri Reticulatae (*Ju He*) and Folium Pyrrosiae (*Shi Wei*), and nine grams each of Radix Bupleuri (*Chai Hu*), Fructus Citri Aurantii (*Zhi Ke*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), and Semen Litchi Chinensis (*Li Zhi He*) to coarse and disinhibit the qi mechanism, free the flow and disinhibit urination. If spleen yang is depleted and vacuous with scanty appetite and loose stools or diarrhea, add 20-30 grams of Semen Lachesanthi-jobi (*Yi Yi Ren*), 15 grams of Semen Dolichoris Lablab (*Bai Bian Dou*), and 9-12 grams each of Rhizoma Atractylodis Macrocephalae (*Bai Zhu*) and Radix Codonopsitis Pilosulae (*Dang Shen*). If qi and blood, and yin and yang are all vacuous with lassitude of the spirit, lack of strength, fear of cold, chilled limbs, and pale lips, nails, and tongue, add 18 grams of Radix Astragali Membranacei (*Huang Qi*), 12 grams of Fructus Lycii Chinensis (*Gou Qi Zi*), and nine grams each of Radix Angelicae Sinensis (*Dang Gui*) and Gelatinum Cornu Cervi (*Lu Jiao Jiao*) to boost the qi and nourish the blood.

If there is heart-kidney yang decline with chest oppression, heart palpitations, if severe, inability to lie down, more severe edema, and scanty urination, use Sheng Mai San (Engender the Pulse Powder) plus Wu Ling San (Five [Ingredients] Poria Powder) with added flavors: uncooked Radix Astragali Membranacei (*Huang Qi*), 18g, Fructus Schisandrae Chinensis (*Wu Wei Zi*), Sclerotium Poriae Cocos (*Fu Ling*), Sclerotium Polypori Umbellati (*Zhu Ling*), and Rhizoma Alismatis (*Ze Xie*), 15g each, Rhizoma Atractylodis Macrocephalae (*Bai Zhu*) and Tuber Ophiopogonis Japonici (*Mai Men Dong*), 12g each, Radix Panacis Ginseng (*Ren Shen*), Rotundus Cinnamomi Cassiae (*Gui Zhi*), and Semen Lepidii Descurainiae (*Ting Li Zi*), 9g each, and Fructus Ziziphi Jujubae (*Da Zao*), 5-7 pieces.

If there is spleen-kidney decline and vanquishment with phlegm dampness obstructing the center and turbid evils collected internally, a somber white facial complexion, superficial edema, epigastric gloom and oppression, torpid intake, nausea, dry, bound stools, and thick, slimy tongue fur, use Huang Lian Wen Dan Tang (Coptis Warm the Gallbladder Decoction with Added Flavors) in order to transform phlegm and harmonize the stomach, free the flow of the bowels and disembour turbidity: Rhizoma Pinelliae Ternatae (*Ban Xia*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Pericarpium Citri Reticulatae (*Chen Pi*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Caulis Bambusae In Taenia (*Zhu Ru*), and wine stir-fried Radix Et Rhizoma Rhei (*Da Huang*), 9g each, Rhizoma Coptidis Chinensis (*Huang Lian*), 3-6g, Radix Glycyrrhizae (*Gan Cao*), 1-3g, and Fructus Ziziphi

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Lin Zhi-gang, "A Study of the Efficacy of Treating Type II Diabetes with Integrated Acupuncture & Medicinals," *Fu Jian Zhong Yi Yao* (Fujian Chinese Medicine & Medicinals), #2, 2000, p. 19-20: There were 70 patients in this study, all of whom had been diagnosed with type 2 diabetes and whose blood glucose was poorly controlled by Western hypoglycemic agents. Forty of these patients were men and 30 were women. Their ages ranged from 31-80 years, and their disease duration ranged from six months to 32 years. Thirty-five of these patients were treated with Chinese herbs and the other 35 were treated with Chinese herbs and acupuncture. Fasting and one, two, and three hour postprandial blood glucose was similar in both these groups before treatment, and patients continued to take their insulin or oral hypoglycemics during this study.

These patients were further divided into three patterns. Those with yin vacuity in the herb group received the following Chinese medicinals: uncooked Radix Astragali Membranacei (*Huang Qi*), 30g, Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Radix Scrophulariae Ningpoensis (*Xuan Shen*), Radix Puerariae (*Ge Gen*), and Radix Dioscoreae Oppositae (*Shan Yao*), 20g each, Radix Pseudostellariae Heterophyllae (*Tai Zi Shen*) and uncooked Radix Rehmanniae (*Sheng Di*), 15g each, Rhizoma Coptidis Chinensis (*Huang Lian*), 10g, and Cortex Radicis Moutan (*Dan Pi*), 6g. One *jì* was decocted in water and administered per day. Those in the combined therapy group with this pattern also were treated once each day with acupuncture at San Yin Jiao (Sp 6) for 20 minutes each time.

Those in the qi and yin dual vacuity group received the following medicinals: uncooked Radix Astragali Membranacei (*Huang Qi*), 30g, Radix Codonopsitis Pilosulae (*Dang Shen*), Radix Glehniae Littoralis (*Sha Shen*), and Radix Puerariae (*Ge Gen*), 20g each, and Radix Dioscoreae Oppositae (*Shan Yao*), 15g. Those in the combined therapy group with this pattern were also needled daily at San Yin Jiao (Sp 6) and Zu San Li (St 36) for 20 minutes each time.

Those in the yin and yang dual vacuity group received the following medicinals: uncooked Radix Astragali Membranacei (*Huang Qi*), 30g, uncooked Radix Rehmanniae (*Sheng Di*), Radix Puerariae (*Ge Gen*), Fructus Lycii Chinensis (*Gou Qi Zi*), and Cortex Amydae Chinensis (*Bie Jia*), 20g each, Fructus Corni Officinalis (*Shan Zhu Yu*), Radix Dioscoreae Oppositae (*Shan Yao*), Semen Cuscutae Chinensis (*Tu Si Zi*), and Plastrum Testudinis (*Gui Ban*), 15g each, and Herba Epimedii (*Xian Ling Pi*), 12g. Those in the combined therapy group were also needled once per day at San Yin Jiao (Sp 6) and Zu San Li (St 36) and moxaed with a moxa roll for 20 minutes each time, two times per day at Yong Quan (Ki 1).

Thirty days after initiating this protocol, a marked effect was defined as FBG less than 6.11mmol/L, two hour PPBG less than 11.1mmol/L or FBG and PPBG less than before treatment by more than 5.0mmol/L. Some effect meant that FBG was 6.11-7.8mmol/L, two hour PPBG was 11.1-15.2mmol/L, or both FBG and PPBG had been lowered between 3-5mmol/L. No effect meant that FBG was more than 7.8mmol/L, two hour PPBG was more than 15mmol/L, or both FBG and PPBG had decreased less than 3mmol/L. Based on these criteria, 15 patients in the Chinese medicinals group only got a marked effect, 12 got some effect, and eight got no effect for a total amelioration rate of 77.1%. In the combined therapy group, 29 got a marked effect, five got some effect, and only one got no effect, for a total amelioration rate of 97.1%.

Li Guang-ping, "The Treatment of 30 Cases of Sulfonylurea-type Hypoglycemic Medicine Subsequent Loss of Effectiveness with Integrated Chinese-Western Medicine," *Fu Jian Zhong Yi Yao* (Fujian Chinese Medicine & Medicinals), #6, 2000, p. 13-14: Thirty patients were treated in this study. All had been taking sulfonylurea-type hypoglycemic drugs which had been effective for one year but which had then become ineffective. Fasting blood glucose in all these patients was equal or more than 10mmol/L, and glycosylated hemoglobin was equal or more than 9.5%. Among these 30 patients, there were 14 males and 16 females. Eighteen were taking oral glybutide and 12 were taking gliclazide. The median age was 55.8 ± 3.4 years, and the median duration of DM was 6.5 ± 0.9 years. All had varying degrees of fatigue and lack of strength in the four limbs.

In terms of treatment, on top of their Western hypoglycemic medications, all the patients in this study were administered the following Chinese medicinals: Radix Astragali Membranacei (*Huang Qi*), Radix Dioscoreae Oppositae (*Shan Yao*), Rhizoma Polygonati (*Huang Jing*), and Radix Pseudostellariae Heterophyllae (*Tai Zi Shen*), 30g each, Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), Sclerotium Poriae Cocos (*Fu Ling*), Endothelium Corneum Gigeriae Galli (*Ji Nei Jin*), and Radix Angelicae Sinensis (*Dang Gui*), 15g each, Radix Platycodi Grandiflori (*Jie Geng*), 10g, and uncooked pork pancreas, 1/3 of a whole one. One *jì* of these medicinals were decocted in water per day and administered orally in three divided doses for eight weeks.

In terms of treatment outcomes, FBG went from a median 12.78 ± 2.1mmol/L before treatment to 8.2 ± 1.34mmol/L

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

patients in this study was more than 7.8 mmol/L, and the urine glucose test was positive. Of the group, six patients were male, and 20 were female. The youngest was 38 years old, and the oldest was 68, with an average age of 53 years. The shortest duration of illness was six months; the longest was eight years.

The prescription consisted of: uncooked Radix Rehmanniae (*Sheng Di*), Radix Dioscoreae Oppositae (*Shan Yao*), Radix Astragali Membranacei (*Huang Qi*), and Cortex Zizyphi (*Huai Zao Pi*), 30g each; Rhizoma Atractylodis (*Cang Zhu*), Radix Scrophulariae Ningpoensis (*Xuan Shen*), Rhizoma Polygonati (*Huang Jing*), and Rhizoma Polygonati Odorati (*Yu Zhu*), 20g each; Radix Salviae Miltiorrhizae (*Dan Shen*), Herbi Dendrobii (*Shi Hu*), and Rhizoma Anemarrhenae Asphelodis (*Zhi Mu*), 15g each; and Fructus Gardeniae Jasminoidis (*Zhi Zi*) and Endothelium Corneum Gigeriae Galli (*Ji Nei Jin*), 12g each. For dry mouth and extreme thirst, Radix Trichosanthis Kirilowii (*Tian Hua Fen*) and Fructus Puni Mume (*Wu Mei*) were added. For lower burner damp heat and genital itching, Cortex Phellodendri (*Huang Bai*) was added. For copious, clear urination, Ootheca Mantidis (*Sang Piao Xiao*) and Fructus Schisandrae Chinensis (*Wu Wei Zi*) were added. For shortness of breath and disinclination to speak, Radix Pseudostellariae (*Tai Zi Shen*) and Radix Panacis Quinquefolii (*Xi Yang Shen*) were added. For low back and lower limb aching and limpness, Cortex Eucommiae Ulmoidis (*Du Zhong*) was added. If there was unclear vision, then Scapus Et Inflorescentia Eriocaulonis Buergeriani (*Gu Jing Cao*) was added. If there was insomnia and profuse dreams, then Semen Zizyphi Spinosae (*Suan Zao Ren*) and Caulis Polygoni Multiflori (*Ye Jiao Teng*) were added. One *ji* was administered per day, and two weeks constituted one course of treatment. In addition, patients were counseled on controlling the amount of food eaten and avoiding acrid, peppery, greasy, and sweet foods.

Patients were considered recovered if the FBG was less than 6.7mmol/L, urine glucose was negative, and the symptoms disappeared. Patients were considered to have had gotten a good effect if the FBG was less than 9.4mmol/L, urine glucose was negative, and the symptoms had improved. Patients were considered to have gotten no effect if the FBG was more than 9.4mmol/L, urine glucose was positive, and the clinical symptoms were only slightly better. Based on these criteria, eight cases were considered recovered (30.77%), 15 cases were considered to have gotten a good effect (57.69%), and three cases were considered to have gotten no effect (11.53%), for a total amelioration rate of 88.64%. The shortest course of treatment was two weeks, and the longest was six weeks. The average treatment time was four weeks.

Luo Shan, "The Treatment of Diabetes Using the Methods of Boosting the Qi, Enriching Yin & Draining Fire," *Hu Bei Zhong Yi Za Zhi (Hubei Journal of Chinese Medicine)*, #3, 1988, p. 41-42: Among the 50 patients in this study, 31 were male and 19 were female. Two patients were 20 years of age or younger, 38 patients were between 21-60 years of age, and 10 patients were older than 60 years of age. For 24 patients, the duration of illness was under a year; for 22 patients, the duration was 1-5 years; and for four patients, the duration of illness was more than five years. For 11 patients, FBG was 6.1-10.08mmol/L; for 23 patients, FBG was 10.09-12.32mmol/L; and for 16 patients, FBG was higher than 12.32mmol/L. The urine glucose test was (++) for four patients, (+++) for 17 patients, and (++++) for 29 patients. Eight patients also had cardiovascular disease, nine had cerebrovascular disease, two had pulmonary tuberculosis, 14 had urinary infections, five patients had boils, six had biliary infections, seven had peripheral neuritis, and seven had visual disturbances.

The basic prescription consisted of: uncooked Radix Astragali Membranacei (*Huang Qi*), Radix Dioscoreae Oppositae (*Shan Yao*), and Radix Trichosanthis Kirilowii (*Tian Hua Fen*), 30g each; Fructus Corni Officinalis (*Shan Zhu Yu*), 20g; Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), uncooked Radix Rehmanniae (*Sheng Di*), Radix Scrophulariae Ningpoensis (*Xuan Shen*), Cortex Radicis Moutan (*Dan Pi*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), and Fructus Schisandrae Chinensis (*Wu Wei Zi*), 15g each, and Radix Panacis Quinquefolii (*Xi Yang Shen*) (or Radix Pseudostellariae Heterophyllae [*Tai Zi Shen*]), 10g. For vexatious thirst with desire for liquids and profuse urination, a red tongue with thin fur, rapid pulse, and other marked heat signs, Gypsum Fibrosum (*Shi Gao*), Rhizoma Anemarrhenae Asphelodis (*Zhi Mu*), and Rhizoma Coptidis Chinensis (*Huang Lian*) were added. For ravenous hunger, cooked Radix Rehmanniae (*Shu Di*) was added. For frequent, profuse, and clear urination and a very weak cubit pulse suggesting exterior cold, Cortex Cinnamomi Cassiae (*Rou Gui*), Radix Lateralis Praeparata Aconiti Carmichaeli (*Fu Zi*), Radix Morindae Officinalis (*Ba Ji Tian*), and Ootheca Mantidis (*Sang Piao Xiao*) were added. For profuse sweating, Os Draconis (*Long Gu*) and Concha Ostreae (*Mu Li*) were added. When angina or coronary heart disease was present, Fructus Trichosanthis Kirilowii (*Quan Gua Lou*), Radix Pseudoginseng (*San Qi*), and Radix Salviae Miltiorrhizae (*Dan Shen*) were added. In addition, any infections, peripheral neuritis, and/or visual disturbances were treated with appropriate medicinals. One *ji* was administered per day on an empty stomach, and 20 days constituted one course of treatment. The routine use of Western drugs to

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

slimy, white fur. Zhu categorized this woman's patterns as upper dryness and lower cold with damp accumulation untransformed and liver wood not spreading. Dr. Zhu thought that the previous attempts to enrich this woman's yin had strengthened dampness and caused detriment to her yang. Therefore, he prescribed Chai Hu Gui Zhi Gan Jiang Tang Jia Jian (Bupleurum, Cinnamon Twig & Dry Ginger Decoction with Additions & Subtractions): Radix Scrophulariae Ningpoensis (Xuan Shen) and Radix Trichosanthis Kirlowii (Tian Hua Fen), 15g each, Radix Bupleuri (Chai Hu), Ramulus Cinnamomi Cassiae (Gui Zhi), Radix Scutellariae Baicalensis (Huang Qin), and Concha Ostreae (Mu Li), 10g each, and Radix Glycyrrhizae (Gan Cao), 6g. After taking 15 *jì* of this formula, the patient's oral thirst and genital itching greatly decreased, her psyche improved, and her urine glucose went from (++++) to (+). Therefore, another 15 *jì* were administered, after which her genital itching disappeared, her urine glucose was (±), and all her symptoms were eliminated.

Case 7[5]

The patient was a 70 year old female who had been diagnosed with diabetes at 50 years of age. This woman had had recurrent urinary tract infections since she was 40 and lower limb paralysis, aching, and pain for the past 20 years. In the past two years, oral thirst with a desire to drink, fatigue, lack of strength, frequent urination, urinary pain, and lower limb aching, pain, and paralysis had all gotten worse. In fact, the woman's urination had become so frequent, she was incontinent. In addition, there was severe lower limb edema, and, if she drank many fluids, this would lead to vomiting. Her lower limb pain was worse at night, and she urinated so frequently, she found it difficult to go to sleep. The patient was also vexed, agitated, and restless. She had taken a number of Western medications, none of which had been markedly effective. At the time of examination, the woman's tongue had slimy, yellow fur and her pulse was vacuous, bowstring, slippery, and rapid. Based on these signs and symptoms, Dr. Zhu categorized this patient's patterns as qi and yin dual vacuity with phlegm and dampness depressed and stagnating and depression transforming fire. Therefore, the treatment principles were to supplement the qi and nourish yin, eliminate dampness and drain fire, for which he prescribed Qi Mai Di Huang Tang Jia Jian (Astragalus Ophiopogon & Rehmannia Decoction with Additions & Subtractions): Radix Astragali Membranacei (*Huang Qi*) and uncooked Radix Rehmanniae (*Sheng Di*), 15g each, Radix Panacis Ginseng (*Ren Shen*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), Rhizoma Atractylodis (*Cang Zhu*), Sclerotium Poriae Cocos (*Fu Ling*), Rhizoma Alismatis (*Ze Xie*), Massa Medica Fermentata (*Shen Qu*), and Cortex Radicis Moutan (*Dan Pi*), 10g each, Radix Angelicae Sinensis (*Dang Gui*), 6g, and Folium Perillae Frutescentis (*Zi Su Ye*), 3g. After taking 20 *jì* of this formula, the woman's eating and drinking and psyche improved and her aching and pain, paralysis, frequent urination, and urinary pain decreased. Therefore, the above formula was made into pills, each pill weighing nine grams. The woman then took one pill each time, three times per day for two years, at the end of which time, all her urinary frequency and pain and edema had disappeared and her lower limb paralysis and aching and pain had mostly disappeared.

Case 8[6]

The patient was a 52 year old male. During the past three years, the patient was commonly hungry and thirsty. In addition, he experienced frequent urination and loss of weight. The man said that he habitually ate rich, fatty foods and drank alcohol. Fasting blood glucose was 150mg/dL and two hour PPBG was 180mg/dL. Fasting urine glucose was (+) and, postprandial, it was (+++). The patient was diagnosed with diabetes mellitus and was started on tolbutamide. When the man took this medication, his symptoms abated, but, if he stopped this medication, they recurred. Therefore, he decided to try acupuncture. In terms of his Chinese medical signs and symptoms, the man presented with lassitude of the spirit, a listerless facial complexion, and a low, weak voice, oral thirst, polydipsia, frequent urination, nocturia, thin, slimy, yellow tongue fur, and a bowstring, vacuous pulse.

Based on these signs and symptoms, the man's patterns were categorized as stomach heat, lung-kidney yin vacuity, and kidney qi not securing and astringing. Therefore, the treatment principles were to nourish the yin of the lungs and kidneys and regulate and rectify the spleen and stomach. The points selected included: Shen Shu (BL 23), Pi Shu (M-BW-22), San Yin Jiao (Sp 6), and Yu Ji (Lu 10). These points were needled once per day with even supplementing-even draining technique and were retained for 30 minutes each treatment. During this course of treatment, the patient was requested to suspend his oral hypoglycemic medications and to abstain from rich foods and alcohol. After five treatments, the oral thirst had abated and water intake was reduced by half. Urination was reduced to 3-4 times per day and once during the night. Excessive hunger was also somewhat decreased.

Therefore, in order to increase the supplementation of the lungs and kidneys, supplementing Tai Xi (K 3) and Fei Shu (BL 13) were added to the above formula. After

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

examined in April 1987 and whose main symptoms were oral thirst, polydipsia, easy hungering, polyuria, and bodily emaciation which had lasted three years. The patient had been previously diagnosed with type 2 DM. His FBG at that time was 15.54mmol/L (280mg/dL), and his urine glucose was (+++). The man had been treated at a local hospital with glyburide and Chinese medicinals but without very marked treatment effects. Fasting blood glucose had become 9.99-13.32mmol/L (180-240mg/dL), but he had developed retinal vessel sclerosis. At the time Dr. Yang first saw this patient, he had a dry mouth with desire to drink, polyphagia, night-time polyuria (4-5 urinations per night), incessant spontaneous perspiration, tidal heat, lack of strength, dry stools, and blurred vision. In addition, his tongue was red with scanty fur, and his pulse was fine, rapid, and forceless. Fasting blood glucose was 11.6mmol/L (210mg/dL) and urine glucose was (+++).

Based on these signs and symptoms, the man's Chinese medical pattern was categorized as qi and yin dual vacuity, and the treatment principles were to boost the qi and nourish yin. Therefore, Dr. Yang needled Fei Shu (Bl 13), Yi Shu (M-BW-12), Pi Shu (Bl 20), Shen Shu (Bl 23), Tai Yuan (Lu 9), Tai Bai (Sp 3), and Tai Xi (Ki 3). The back transport points were needled with supplementing technique and not needle retention. The source points were needled with supplementing technique and 15 minute retention. This treatment was given once every other day, and, after 12 treatments, the patient's condition had markedly improved. The polydipsia and polyphagia had basically disappeared and the night-time urinations had decreased. The man's vision had improved, FBG was 7.9mmol/L (143mg/L), and urine glucose was (+). However, he still suffered from incessant spontaneous perspiration. Therefore, Tai Xi was removed and draining He Gu (LI 4) and supplementing Fu Liu (Ki 7) was added. After another course of treatment, all the symptoms had disappeared, the patient's psyche had improved, his FBG was 5.3mmol/L (96mg/L), and urine glucose was negative. Yet another course of treatment was given in order to secure and consolidate the treatment effect. On follow-up two years later, the patient's FBG was 6.2mmol/L (113mg/L) and his urine glucose was still negative.

Case 17[16]

The patient was a 46 year old female who had suffered from oral thirst and frequent urination for three months. In addition, there was lassitude of the spirit, lack of strength in her extremities, emaciation, a tendency to hunger, and continuous pruritus. Her FBG was 13.3mmol/L (240mg/dL), urine glucose was (++), and urine ketones were negative. Therefore, the woman was diagnosed with diabetes and administered oral hypoglycemic medications. Unfortunately, although her symptoms improved, there was dizziness and nausea, and, thus, the patient stopped these medications and came to Dr. Chen for acupuncture. At the time Dr. Chen examined this woman, her blood pressure was 140/70mmHg, her tongue was pale with thin, yellow, turbid fur, her pulse was slippery, fine, and rapid, and she weighed 51kg.

Based on these signs and symptoms, the woman's Chinese medical pattern was categorized as kidney yin vacuity, and the treatment principles were to enrich yin and moisten the lungs, clear the stomach and downbear fire. The points Dr. Chen chose were Tai Xi (Ki 3) and Guan Yuan (CV 4) combined with Yu Ji (Lu 10) and Zu San Li (St 36). Tai Xi and Guan Yuan were needled with supplementing technique, and Yu Ji and Zu San Li were needled with draining technique. After obtaining the qi, the needles were retained for 20 minutes.

At the second examination, the patient reported that her fatigue and vexatious thirst had both improved after the acupuncture. However, she was still hungry and still had frequent urination. Her tongue and pulse were the same as before. Therefore, Dr. Chen needled the same points as before plus the Kidney ear point on the right side in order to more strongly secure the root and support the righteous, and on the third examination, the patient reported her lassitude of the spirit had improved yet again and that the symptoms of the three wastings had decreased. In addition, her night-time urinations had gone from 5-6 per night to 2-3. Her tongue was now pale with thin fur, and her pulse was slippery and fine. This meant that her kidney yin had obtained supplementation and that dryness and fire had been somewhat leveled. Therefore, draining Kong Zui (Lu 6) and Yin Ling Quan (Sp 9) and supplementing Shen Shu (Bl 23) were added to the original treatment. In addition, Dr. Chen needled the left Kidney ear point instead of the right.

On the fourth examination, the patient said that all her symptoms had gradually decreased and that her body weight had been increasing daily. Her tongue was pale with thin fur, and her pulse was now simply fine. Therefore, her kidney qi was judged to have recuperated and dryness and fire had gradually receded. Thus Dr. Chen needled Yu Ji (Lu 10) and Zhong Wan (CV 12) with draining technique and Guan Yuan (CV 4) with supplementing, and he did not needle any ear points. Instead, he used a plum blossom needle to needle the bladder channel on the upper and lower back in order to course and free the flow of the channel and network vessel qi and blood and to regulate and harmonize yin and yang.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

depression and stomach heat. This heat may be depressive heat, damp heat, or even potentially phlegm heat. In most cases, there is also spleen qi vacuity. As enduring heat damages fluids, one first gets fluid dryness which later evolves into true yin vacuity. In this case, enduring fluid dryness of the lungs and stomach eventually reaches the kidneys. Now there is liver depression, spleen qi vacuity, and yin vacuity. As enduring liver depression and inhibition of the qi mechanism as well as dampness and heat damage the spleen more and more, this eventually causes a spleen-kidney yang dual vacuity. Now there is a qi and blood, yin and yang dual vacuity. Because the qi moves the blood and because blood and fluids flow together, qi stagnation and dampness may cause concomitant blood stasis. In addition, because phlegm is nothing other than congealed dampness, many cases of diabetes either are or eventually become complicated by phlegm. Although the above patterns and their accompanying formulas provide a general guideline for treatment, in real life, one basically has to assess the relative amounts of liver depression, heat (what kind of heat and where it is located), spleen qi vacuity, yin, blood, and fluid insufficiencies, yang vacuity, phlegm, and blood stasis and then construct a treatment plan which takes each disease mechanism into account according to their proportions in the patient's pattern discrimination. This means creating an individualized formula for each patient's personal combination of patterns. Most patients with diabetes have at least three patterns simultaneously: liver depression, some kind of evil heat, and spleen qi and/or yin fluid insufficiency. The older the patient or the longer the patient has had diabetes, the more additional patterns they will typically display.

Because most cases of diabetes are complicated by a number of symptoms or conditions, Ding Xue-ping gives the following generic modifications which can be added to various formulas for diabetes. For heart palpitations, add 30 grams each of Radix Pseudostellariae Heterophyllae (Tai Zi Shen) and Concha Margaritiferae (Zhen Zhu Mu), 18 grams of Dens Draconis (Long Chi), nine grams of Rhizoma Polygoni Odorati (Yu Zhu), and three grams of Rhizoma Nardostachyis (Gan Song). For chest impediment categorized as phlegm and stasis, add 12 grams of Radix Salviae Miltiorrhizae (Dan Shen), nine grams each of Fructus Trichosanthis Kirilowii (Gua Lou) and Bulbus Allii (Cong Bai), six grams of Flos Carthami Tinctorii (Hong Hua), and three grams of Ramulus Cinnamomi Cassiae (Gui Zhi). For hemiplegia and aphasia, add 12 grams of Engelcyphaga Seu Opisthoplatia (Tu Bie Chong), nine grams each of Tuber Curcumae (Yu Jin) and Hirudo Seu Whitmania (Shui Zhi), six grams of Concretio Silicea Bambusae (Tian Zhu Huang), and 4.5 grams of Bulbus Materiae (Quan Xie). For headache and dizziness due to hypertension, add 30 grams of Dens Draconis (Long Chi), 18 grams each of Concha Margaritiferae (Zhen Zhu Mu) and Concha Haliotidis (Shi Jue Ming), and 0.6 grams of Cornu Caprae (Shan Yang Jiao), powdered and swallowed with the decoction. For numbness and piercing pain of the extremities due to peripheral neuropathy, add nine grams of Bombyx Batryticatus (Jiang Can), six grams of Lumbricus (Di Long), and 4.5 grams of Bulbus Materiae (Quan Xie). For retinopathy, add 30 grams of Radix Salviae Miltiorrhizae (Dan Shen), 18 grams of Concha Haliotidis (Shi Jue Ming), and 15 grams each of Spica Prunellae Vulgaris (Xia Ku Cao) and Herba Lycopi Lucidi (Ze Lan). For nausea and vomiting, add nine grams of Endothelium Corneum Gigeriae Galli (Ji Nei Jin), six grams of Folium Perillae Frutescentis (Zi Su Ye), and three grams of Rhizoma Coptidis Chinensis (Huang Lian). For diarrhea, add nine grams each of Fructus Psoraleae Corylifoliae (Bu Gu Zhi) and Semen Myristicae Fragrantis (Rou Dou Kou). For constipation, add 12 grams of Herba Cistanches Deserticolae (Rou Cong Rong) and nine grams of Radix Angelicae Sinensis (Dang Gui). For edema, add 30 grams of Radix Stephaniae Tetrandrae (Han Fang Ji) and 15 grams each of Herba Lycopi Lucidi (Ze Lan) and Herba Leonuri Heterophylli (Yi Mu Cao). For vaginal pruritus or strangury, add 30 grams each of Radix Et Rhizoma Polygoni Cuspidati (Hu Zhang), Herba Oldenlandiae Diffusae Cum Radice (Bai Hua She She Cao), and Rhizoma Smilacis Glabrae (Tu Fu Ling), 15 grams of Fructus Kochiae Scopariae (Di Fu Zi), and nine grams of Herba Pyrrosiae (Shi Wei). If there is simultaneous external contraction with fever and sore throat, add 12 grams of Radix Lithospermi Seu Arnebiae (Zi Cao), nine grams each of Fructus Arctii Lappae (Niu Bang Zi) and Folium Daphnyae (Zhi Qing Ye), and three grams of Fructificatio Laniopherae Seu Calvatiae (Ma Bo). If aversion to cold is marked, add 12 grams each of Folium Perillae Frutescentis (Zi Su Ye) and Semen Praeparatum Sojae (Dan Dou Chi). If there is cough with yellow phlegm, add 30 grams each of Semen Benincasae Hispidae (Dong Gua Zi) and Herba Houttuyniae Cordatae Cum Radice (Yu Xing Cao) and 12 grams each of Folvis Indigoro (Qing Dai) and Folium Eriobotryae Japonicae (Pi Pa Ye). If there are sores, add 30 grams each of Herba Oldenlandiae Diffusae Cum Radice (Bai Hua She She Cao) and Rhizoma Smilacis Glabrae (Tu Fu Ling) and 15 grams of Radix Cynanchi Baiwei (Bai Wei).[19]

8. According to modern Western medicine, the incidence of diabetes is closely related to emotional factors. In one published study, 48% of patients with diabetes suffer from some form of emotional dysphoria. In another study, it is estimated that 76% of diabetes patients are type A personalities. Type A persons have strong ambitions, are compulsive workers, and are easily agitated and/or angered.[21] This helps underscore the importance of treat-

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

women with GDM must self-monitor their blood glucose up to four times per day as well as test for ketones in their urine 1-2 times per week. For some women, exercising, such as walking after meals or at specific times of the day, helps to keep blood sugars in better control.[5]

Risks to the mother if GDM is not controlled include the possibility of delivery by Cesarean section due to the baby's large size or the development of eclampsia (a.k.a. eclampsia), increased urinary tract infections, and development of pregnancy induced high blood pressure. About 5% of women with GDM develop toxemia during pregnancy.[6] Approximately 40% of women diagnosed with GDM develop type 2 diabetes later in life.[7] In one large study, more than half of all women with GDM developed overt type 2 diabetes within 15 years of pregnancy.[8] The risks to the infant include macrosomia (i.e., a large, fat baby), shoulder dystocia, neonatal hypoglycemia, increased risk for obesity and diabetes, prolonged neonatal jaundice, low blood calcemia, and respiratory distress syndrome. In the majority of cases, GDM disappears automatically after delivery.

CHINESE MEDICAL DISEASE CATEGORIZATION: The traditional Chinese disease categories which correspond to gestational diabetes or its complications include *ren shen fan re*, vexatious heat during pregnancy, *ren shen fan ke*, vexatious thirst during pregnancy, *ren shen mian yun*, dizziness and vertigo during pregnancy, *ren shen tou zhong tong*, head distention and pain during pregnancy, *ren shen xian zheng*, epilepsy during pregnancy, *ren shen xiao bian bu tong*, urinary strangury and pain during pregnancy, and *ren shen zhao nao*, polyuria during pregnancy.

CHINESE DISEASE MECHANISMS: During pregnancy, yin, essence, blood, and fluids are transported downward to the uterus in order to foster and nourish the fetus. If, due to natural endowment insufficiency or habitual bodily yin vacuity, this may leave yin and blood within the mother's body depleted and vacuous. Thus yin vacuity may engender heat internally, and this heat may further damage and consume yin fluids, leading to the easy engenderment of wasting and thirsting disease. It is also possible for habitual depression to cause the liver to lose its spreading. Because the fetus already obstructs the mother's qi mechanism as it grows in size towards the end of the pregnancy, qi stagnation often becomes more severe during the last trimester, and enduring or aggravated depression may transform fire which may also damage and consume yin fluids. Further, habitual addiction to sweets and fats may also cause accumulation of heat brewing internally. If, during the later half of pregnancy when yin and blood tend to become vacuous and insufficient and yang qi tends to become exuberant, such exuberant yang qi may join with these heat evils, thus exacerbating each other. Hence, there is yin vacuity with heat exuberance which is also able to give rise to wasting and thirsting disease.

TREATMENT BASED ON PATTERN DISCRIMINATION:

1. YIN VACUITY WITH HEAT EXUBERANCE PATTERN

MAIN SYMPTOMS: Dry mouth and parched throat, vexatious thirst, polydipsia, frequent, numerous, excessive urination, polyphagia, rapid hungering, dry, bound stools, a red tongue with scanty fluids, and a slippery, rapid pulse

TREATMENT PRINCIPLES: Enrich yin and clear heat

RX: *Zeng Ye Tang* (Increase Humors Decoction) plus *Bai Hu Tang* (White Tiger Decoction) with additions and subtractions

INGREDIENTS: Uncooked Gypsum Fibrosum (*Shi Gao*), 20g, uncooked Radix Rehmanniae (*Sheng Di*) and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 15g each, Radix Glehniae Littoralis (*Sha Shen*) and Tuber Ophiopogonis Japonici (*Mai Men Dong*), 12g each, and Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*) and Radix Scutellariae Baicalensis (*Huang Qin*), 9g each

FORMULA ANALYSIS: *Sheng Di*, *Xuan Shen*, *Sha Shen* and *Mai Men Dong* enrich yin and increase humors. *Huang Qin*, *Shi Gao*, and *Zhi Mu* clear heat and engender fluids.

ADDITIONS & SUBTRACTIONS: If there are dry, bound stools, one can increase the doses of *Sheng Di* and *Xuan Shen* in order to enrich yin and increase humors, moisten the intestines and free the flow of the stools. If there is simultaneous obstruction and stagnation of the qi mechanism with chest and rib-side distention and oppression, add nine grams each of Pericarpium Citri Reticulatae Viride (*Qing Pi*), Fructus Meliae Toosendan (*Chuan Lian Zi*), and Fructus Citri Aurantii (*Zhi Ke*) to course the liver and rectify the qi. If oral thirst is severe, add nine grams each of Herba Dendrobii (*Shi Hu*), Rhizoma Phragmitis Communis (*Lu Gen*), and Fructus Pruni Mume (*Wu Mei*) to engender fluids and stop thirst.

ACUPUNCTURE & MOXIBUSTION: *Tai Xi* (Ki 3), *Zhao Hai* (Ki 6), *Nei Ting* (St 44)

FORMULA ANALYSIS: Supplementing *Tai Xi* and *Zhao*

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

11

Hepatogenic Diabetes

Secondary hepatic parenchymal damage diabetes refers to diabetes mellitus secondary to typically chronic liver disease. This condition is also called hepatogenic diabetes. Chronic liver disease causes decreased glucose tolerance in 50-80% of cases and diabetes in 15-30% of cases. In addition, many oral hypoglycemic agents may cause damage to the liver, and, while injected insulin is not injurious to the liver, it is difficult to adjust the dose. Therefore, injection of insulin commonly results in hypoglycemia which does not benefit the recuperation of the liver.

Treatment based on pattern discrimination:

1. Liver depression & damp heat pattern

Main symptoms: Torpid intake but no severe emaciation, abdominal distention, lack of strength, rib-side distention and pain, if severe, possible yellowing of the body and eyes which is fresh and bright in color, thirst not leading to drinking or possible thirst with a desire to drink but not actually drinking, short, yellow urination but not profuse urination, a bitter taste in the mouth, a red tongue with slimy, yellow fur, and a soggy, rapid or bowstring, rapid pulse.

Note: This pattern is mostly seen in those with chronic active hepatitis and diabetes mellitus.

Treatment principles: Clear the liver and discharge heat, disinhibit dampness and move or transport the spleen.

Rx: *Qing Gan Jiang Tang Tang* (Clear the Liver & Lower Sugar Decoction)

Ingredients: Herba Artemisiae Capillaris (*Yin Chen Hao*) and Herba Taraxaci Mongolici Cum Radice (*Pu Gong Ying*), 30g each, Gypsum Fibrosum (*Shi Gao*), 20g, Radix Scutellariae Baicalensis (*Huang Qin*), Rhizoma Coptidis Chinensis (*Huang Lian*), Fructus Forsythiae Suspensae (*Lian Qiao*), Radix Bupleuri (*Chai Hu*), Herba Agastachis Seu Pogostemi (*Huo Xiang*), Radix Et Rhizoma Polygoni Cuspidati (*Hu Zhang*), Tuber Curcumae (*Yu Jin*), uncooked Fructus Gardeniae Jasminoidis (*Zhi Zi*), stir-fried Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), Semen Coicis Lachryma-jobi (*Yi Yi Ren*), and uncooked Radix Glycyrrhizae (*Gan Cao*), 10g each, and Fructus Cinnamomi (*Rou Gui*), 6g.

Formula analysis: *Yin Chen Hao*, *Pu Gong Ying*, *Shi Gao*, *Huang Qin*, *Huang Lian*, *Hu Zhang*, *Zhi Zi*, and *Lian Qiao* clear heat and eliminate dampness from the liver-gallbladder. *Chai Hu* and *Yu Jin* course the liver and resolve depression. *Huo Xiang*, *Bai Zhu*, *Yi Yi Ren*, and *Rou Gui* arouse the spleen and dry and disinhibit dampness. Uncooked *Gan Cao* both clears heat and resolves toxins and harmonizes all the other medicinals in this formula.

Additions & subtractions: If torpid intake and scanty appetite are marked, add 15 grams of stir-fried Fructus Germinatus Hordei Vulgaris (*Mai Ya*) and nine grams of Endothelium Corneum Gigeriae Galli (*Ji Nei Jin*). If there is ductal glomus and nausea, add nine grams each of Rhizoma Pinelliae Ternatae (*Ban Xia*) and Rhizoma Acori Graminei (*Shi Chang Pu*).

Acupuncture & moxibustion: *Tai Chong* (Liv 3), *Xing Jian* (Liv 2), *Yang Ling Quan* (GB 34), *Yin Ling Quan* (Sp 9).

Formula analysis: Needling *Tai Chong* through to

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Case 2[2]

The patient was a 62 year old male worker who was first examined on Mar. 10, 1973. In 1964, this patient had had icteric hepatitis. He had been treated in a hospital and had improved. However, in 1973, he developed secondary liver cirrhosis. At the same time, diabetes manifested with oral thirst and polyuria. In addition, there was devitalized eating, fatigue, lack of strength, lancinating rib-side pain, ductal and abdominal distention, slightly loose, nonstrip stools, and a purplish red tongue with stasis, yellow fur and teeth-marks on its edges. Further, there was hepatosplenomegaly, urine glucose was (+++), FBG was 280mg/dL, and liver function was abnormal.

Based on these signs and symptoms, the patient's Chinese medical patterns were categorized as enduring damp heat causing liver blood stasis and obstruction and loss of spleen's movement with qi and yin dual vacuity. Therefore, the treatment principles were to clear heat and transform dampness, regulate and rectify the liver and spleen, boost the qi and nourish yin. Based on these principles, the following Chinese medicinals were prescribed: Radix Astragali Membranacei (*Huang Qi*), Radix Codonopsitis Pilosulae (*Dang Shen*), Radix Salviae Miltiorrhizae (*Dan Shen*), Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Herba Dendrobii (*Shi Hu*), Fructus Ligustri Lucidi (*Nu Zhen Zi*), and Herba Oldenlandiae Diffusae Cum Radice (*Bai Hua She She Cao*), 15g each, and Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), Radix Albus Paeoniae Lactiflorae (*Bai Shao*), Cortex Phellodendri (*Huang Bai*), Pericarpium Citri Reticulatae (*Chen Pi*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), Rhizoma Atractylodis (*Cang Zhu*), and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 10g each.

After taking nine *ji* of these medicinals, the patient's oral thirst and polyuria were slightly decreased and his stools were more crisp. However, they could still be loose sometimes. Hence, Dr. Wan rewrote the patient's prescription as follows: Radix Astragali Membranacei (*Huang Qi*), Radix Dioscoreae Oppositae (*Shan Yao*), Radix Salviae Miltiorrhizae (*Dan Shen*), and Herba Oldenlandiae Diffusae Cum Radice (*Bai Hua She She Cao*), 30g each, Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Herba Dendrobii (*Shi Hu*), and Herba Leonuri Heterophylli (*Yi Mu Cao*), 15g each, and Rhizoma Atractylodis (*Cang Zhu*), Radix Scrophulariae Ningpoensis (*Xuan Shen*), Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), and Herba Pteriniae Heterophyllae Cum Radice (*Bai Jiang Cao*), 10g each.

After taking 12 *ji* of these medicinals, the oral thirst and polyuria completely remitted and the patient's stools were formed. Liver function had returned to normal, and FBG was 150mg/dL. Therefore, Dr. Wan added 10 grams of Semen Pruni Persicae (*Tao Ren*) to the original formula plus three grams of Radix Rubrus Panacis Ginseng (*Hong Shen*). The patient took these Chinese medicinals for another month. When he was re-examined on Jun. 2, blood glucose was normal and liver function was still normal. Afterwards, the patient took 8-10 *ji* of the original formula and, after 10 years, there was no recurrence.

Case 3[3]

The patient was a 47 year old female who was first examined on Oct. 5, 1979. In 1963, this woman had suffered from acute schistosomiasis, for which she was treated and had improved. However, in 1977, her liver function became abnormal. The Western diagnosis was schistosomiasis liver cirrhosis. Then, in 1979, the patient was diagnosed with diabetes. At the time of Dr. Wan's examination, there was liver area aching and pain, fatigue, lack of strength, a dry mouth but scanty drinking, devitalized eating, dizziness, profuse dreams during sleep at night, vexation, agitation, and restlessness, sometimes loose stools and sometimes constipation, yellow urine, relatively profuse night-time urination, and sometimes early, sometimes late menstruation which was sometimes scanty and sometimes profuse and which contained a small number of blood clots. The patient's eyelids were slightly swollen, her tongue tip was red and its edges were purple with thin, yellow fur, and a bowstring, fine pulse. Both hands lacked warmth, hand lungs could be felt in the abdomen, and there was pitting edema of both lower limbs. Urine glucose was (++), FBG was 170mg/dL, and liver function was abnormal. Schistosomiasis liver cirrhosis was confirmed by ultrasound.

Based on the above signs and symptoms, this patient's Chinese medical patterns were discriminated as liver blood not flowing smoothly with loss of regularity of spleen movement, damp heat brewing and exhausting the former, kidney qi insufficiency, loss of regulation of the *chong* and *ren*, and heart spirit loss of nourishment. Therefore, the treatment principles were to clear and eliminate dampness and heat, regulate the qi and blood, supplement the spleen and kidneys, and nourish the heart spirit, for which the patient was prescribed: Radix Pseudostellariae Heterophyllae (*Tai Zi Shen*), Radix Dioscoreae Oppositae (*Shan Yao*), Caulis Polygoni Multiflori (*Ye Jiao Teng*), Radix Salviae Miltiorrhizae (*Dan Shen*), and Herba Oldenlandiae Diffusae Cum Radice (*Bai Hua She She Cao*), 30g each, Radix Trichosanthis Kirilowii (*Tian Hua Fen*), Fructus Corni Officinalis (*Shan Zhu Yu*),

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Ding), Flos Chrysanthemi Indici (*Ye Ju Hua*), and Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*). If there is infection due to toothache or periodontitis, add 15 grams each of Radix Achyranthis Bidentatae (*Niu Xi*) and Radix Angelicae Dahuricae (*Bai Zhi*) and add three grams of Herba Asari Cum Radice (*Xi Xin*). If there is external contraction of wind cold, add nine grams each of Radix Ledebouriellae Divaricatae (*Fang Feng*), Radix Et Rhizoma Notopterygii (*Qiang Huo*), and Folium Perillae Frutescentis (*Zi Su Ye*). If there is external contraction of wind heat, add 15 grams each of Folium Duqingye (*Da Qing Ye*) and Radix Paeoniae (*Ge Gen*) and nine grams of Radix Bupleuri (*Chai Hu*). If there is concomitant urinary tract infection, add 15 grams each of Herba Violae Yedoensis Cum Radice (*Zi Hua Di Ding*) and Rhizoma Imperatae Cylindricae (*Bai Mao Gen*) and nine grams each of Fructus Kochiae Scopariae (*Di Fu Zi*) and Cortex Phellodendri (*Huang Bai*). If there is enduring high ketonemia, add 15 grams each of Folium Duqingye (*Da Qing Ye*), Radix Isatidis Seu Baphicacanthi (*Ban Lan Gen*), and Radix Lithospermi Seu Arnebiae (*Zi Cao*), and three grams of Cortex Cinnamomi Cassiae (*Rou Gui*). If there is hyperthyroidism or enlargement of the thyroid gland, add 15 grams of Spica Prunellae Vulgaris (*Xia Ku Cao*). 12 grams each of Concha Arcae (*Wa Leng Zi*) and Concha Ostreae (*Mu Li*), and nine grams each of Bulbus Fritillariae Thunbergii (*Zhe Bei Mu*), Herba Sargassi (*Hai Zao*), Thallus Algae (*Kun Bu*), and Endothelium Corneum Gigeriae Galli (*Ji Nei Jin*).

If vexatious thirst is severe with marked lack of strength, one can use *Bai Hu Jia Ren Shen Tang Jia Jian* (White Tiger Plus Ginseng Decoction with Additions & Subtractions): uncooked Gypsum Fibrosum (*Shi Gao*), 30g. Radix Dioscoreae Oppositae (*Shan Yao*), 15g; Tuber Ophiopogonis Japonici (*Mai Men Dong*), 12g, Radix Trichosanthis Kirlowii (*Tian Hua Fen*) and Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), 9g each, Radix Panacis Ginseng (*Ren Shen*), 6-9g, and mix-fried Radix Glycyrrhizae (*Gan Cao*), 3-6g.

Acupuncture & Moxibustion: Tai Xi (Ki 3), *San Yin Jiao* (Sp 6), *Zu San Li* (St 36), *Nei Ting* (St 44)

Formula analysis: Supplementing *Tai Xi* and *San Yin Jiao* nourishes and enriches yin fluids, while supplementing *San Yin Jiao* and *Zu San Li* fortifies the spleen and boosts the qi. Draining *Nei Ting* clears heat from the yang ming.

Additions & subtractions: If there is concomitant blood stasis, add draining *Xue Hai* (Sp 10) and use even supplementing-even draining at *San Yin Jiao* (Sp 6). If there is emission of heat, add draining *Qu Chi* (LI 11) and *He Gu* (LI 4).

2. Dryness & heat entering the blood with blood stasis and retention of turbidity pattern

Main symptoms: Oral thirst, polydipsia, frequent urination with large volume, bodily fatigue, lack of strength, stomach duct gloomy, torpid intake, nausea with a desire to vomit, dizziness, dry, bound stools, a dark red tongue with white, slimy or yellow, slimy fur, and a bowstring, slippery pulse

---

Note: This pattern describes a more severe presentation than the preceding pattern.

Treatment principles: Clear heat and harmonize the blood, dispel dampness and transform turbidity

Rx: *Huang Lian Jie Du Tang* (Coptis Resolve Toxins Decoction) plus *Zeng Ye Tang* (Increase Fluids Decoction) with additions and subtractions

Ingredients: Radix Trichosanthis Kirlowii (*Tian Hua Fen*) and Radix Astragali Membranacei (Huang Qi), 30g each, uncooked Radix Rehmanniae (*Sheng Di*) and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 20g each, Radix Dioscoreae Oppositae (*Shan Yao*), 15g, Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Cortex Radicis Moutan (*Dan Pi*), Rhizoma Atractylodis (*Cang Zhu*), Herba Eupatorii Fortunei (*Pei Lan*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Radix Scutellariae Baicalensis (*Huang Qin*), and wine-processed Radix Et Rhizoma Rhei (*Da Huang*), 9g each, and Rhizoma Coptidis Chinensis (*Huang Lian*) and Fructus Gardeniae Jasminoidis (*Zhi Zi*), 6g each

Formula analysis: *Huang Lian, Huang Qin,* and *Zhi Zi* clear heat and drain fire, *Dan Pi, Sheng Di,* and *Chi Shao* cool and quicken the blood, *Cang Zhu, Pei Lan,* and *Fu Ling* penetratingly and aromatically transform turbidity, *Zhi Shi* and *Da Huang* sacrify the qi, free the flow of the bowels, and drain turbidity, *Huang Qi, Shan Yao, Sheng Di,* and *Xuan Shen* boost the qi and enrich yin.

Additions & subtractions: If there is dizziness and headache, add 12 grams each of Ramulus Uncariae Cum Uncis (*Gou Teng*), uncooked Concha Ostreae (*Mu Li*), and Concha Margaritiferae (*Zhen Zhu Mu*) and nine grams of Flos Chrysanthemi Morifolii (*Ju Hua*). If there is blurred vision, add 12 grams of Concha Haliotidis (*Shi Jue Ming*) and nine grams each of Fructus Lycii Chinensis (*Gou Qi Zi*), Semen Celosiae Argenteae (*Qing Xiang Zi*),

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

NOTE: This pattern mostly presents in those with a concurrent infection and coma or delirium due to high fever.

TREATMENT PRINCIPLES: Clear heat and cool the blood, arouse the spirit and open the orifices

RX: Qing Gong Tang Jia Wei (Clear the Palace Decoction with Added Flavors)

INGREDIENTS: Radix Salviae Miltiorrhizae (Dan Shen), Flos Lonicerae Japonicae (Jin Yin Hua), and Cornu Bubali (Shui Niu Jiao) taken with the decocted liquid, 30g each, Radix Scrophulariae Ningpoensis (Xuan Shen) and uncooked Radix Rehmanniae (Sheng Di), 20g each, Fructus Forsythiae Suspensae (Lian Qiao) and Radix Rubrus Paeoniae Lactiflorae (Chi Shao), 15g each, Tuber Ophiopogonis Japonici (Mai Men Dong), 12g, PhenaliaNelumbinis Nuciferae (Lian Zi Xin) and wine-processed Radix Et Rhizoma Rhei (Da Huang), 9g each, and Rhizoma Coptidis Chinensis (Huang Lian), 6g

FORMULA ANALYSIS: *Sheng Di, Xuan Shen, and Mai Men Dong* enrich yin and clear heat. *Lian Zi Xin* and *Huang Lian* clear the heart and drain heat. *Jin Yin Hua* and *Lian Qiao* clear heat and resolve toxins. *Dan Shen* and *Chi Shao* cool and quicken the blood. Wine-processed *Da Huang* frees the flow of the bowels and drains heat.

ADDITIONS & SUBTRACTIONS: If there is coma, also administer one pill of An Gong Niu Huang Wan (Quiet the Palace Bezoar Pills) via nasal intubation.

ACUPUNCTURE & MOXIBUSTION: *Shi Xuan* (M-UE-11), *Ren Zhong* (GV 26)

FORMULA ANALYSIS: Bleeding *Shi Xuan* clears heat and arouses the spirit, while draining *Ren Zhong* opens the orifices and arouses the brain.

3. Yin exhaustion & yang desertion pattern

MAIN SYMPTOMS: A somber white facial complexion, lack of consciousness of human affairs, no speech, sunken eye sockets, a dry, cracked tongue, reversal chilling of the four limbs, low blood pressure, scanty urination or anuria, and a faint pulse on the verge of expiry

NOTE: This pattern is mostly seen in patients with diabetic hyperosmolar nonketotic coma with circulatory collapse.

TREATMENT PRINCIPLES: Rescue yang and stem counterflow

RX: Si Ni Jia Ren Shen Tang Jia Wei (Four Counterflows Plus Ginseng Decoction with Added Flavors)

INGREDIENTS: Radix Rubrus Panacis Ginseng (*Hong Shen*), 15g, Tuber Ophiopogonis Japonici (*Mai Men Dong*), 12g, Fructus Corni Officinalis (*Shan Zhu Yu*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), Radix Lateralis Praeparatus Aconiti Carmichaeli (*Fu Zi*), and dry Rhizoma Zingiberis (*Gan Jiang*), 9g each, and mix-fried Radix Glycyrrhizae (*Gan Cao*), 6g

FORMULA ANALYSIS: *Fu Zi* and *Gan Jiang* rescue yang and stem counterflow. *Hong Shen, Shan Zhu Yu, Mai Men Dong, Wu Wei Zi,* and mix-fried *Gan Cao* boost the qi, nourish yin, and secure desertion.

ACUPUNCTURE & MOXIBUSTION: *Su Liao* (GV 25), *Nei Guan* (Per 6), *Zu San Li* (St 36), *Xing Fen* (M-HN-23)

FORMULA ANALYSIS: Supplementing *Zu San Li* boosts the qi and stems desertion. Draining *Nei Guan* quickens the blood within the heart and opens blockage. Supplementing *Su Liao* and *Xing Fen* arouses the brain and raises the blood pressure.

Remarks:

1. As with DKA, above, this is an emergency condition typically requiring in-patient hospital care, often in an ICU. However, after emergency treatment has stabilized the patient, Chinese medicine may be used to promote faster recovery with less side effects and lower doses of Western medicines.

Endnotes:

[1] www.emedicine.com/ped/topic2344.htm

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

15

DIABETIC HYPERTENSION

Hypertension refers to abnormally elevated blood pressure, and hypertension is especially common among people with type 2 or non-insulin-dependent diabetes. According to the American Diabetes Association, nearly 60% of people with type 2 diabetes also have high blood pressure,[1] while the U.S. Center for Disease Control puts this number at closer to 65%.[2] The Western medical diagnosis of hypertension is based on measuring systolic and diastolic blood pressure using a blood pressure cuff. Since blood pressure may fluctuate, at least two blood pressure readings should be taken on separate days, and care should be taken to insure the proper sized cuff for the size of the arm. For instance, using too small a cuff on a larger than normal arm will tend to read hypertensive. The upper limit of normal blood pressure in adults is 140/90mmHg.

If patients have mild hypertension and no heart problems, diet and lifestyle changes may suffice if carried out with determination. Such diet and lifestyle modifications include weight loss, restricted intake of sodium, exercise, and relaxation. For more severe hypertension or for mild cases that do not respond to changes in diet and lifestyle within one year, drug treatment is usually considered necessary. Antihypertensive medications typically fall into one of five categories: diuretics, ACE inhibitors or receptor inhibitors, beta-blockers, vasodilators, and calcium channel blockers. ACE inhibitors are the first line therapy for hypertension in diabetics because of their renal and cardiovascular effects. Low doses of beta-blockers may also be given for secondary prevention. However, these should be used with caution due to their masking of hypoglycemic symptoms. ACE inhibitors block angiotensin-converting enzyme (ACE), an enzyme that indirectly causes blood vessels to constrict. ACE inhibitors include captoril, enalapil, lisinopril, and ramipril. Beta-blockers block the effects of adrenalin, thus decreasing the heart rate and blood pressure. There are a number of beta-blockers now available, including propranol, oxprenolol, labetalol, betaxolol, carteolol, and carvedilol.

Nearly 15% of persons with hypertension are not currently on medication, and untreated hypertensives are at great risk for developing disabling or fatal heart disease, cerebral hemorrhage or infarction, or renal failure. Hypertension is the most important risk factor predisposing a person to stroke. However, of those hypertensives on antihypertensive medication, only 27% of American adults with high blood pressure are well controlled. The rest are on medication which is not optimally controlling their blood pressure. Unfortunately, all Western antihypertensive medicines have side effects. Some of these side effects are distressing, such as loss of sex drive, urinary incontinence, cold extremities, heart arrhythmias, fatigue, constipation, and allergy symptoms. Therefore, achieving patient adherence is difficult, especially since treatment is lifelong or, at least, indefinite.

CHINESE DISEASE MECHANISMS:

There are three key disease mechanisms in diabetic hypertension. These are liver-kidney yin vacuity, ascendant liver yang hyperactivity, and phlegm turbidity obstructing the center. If, due to stress and emotional frustration and upset, liver depression transforms heat, or, due to overeating acrid, spicy, hot foods, oily, greasy, fried foods, and drinking alcohol, heat is engendered in the stomach, enduring heat may damage and consume yin fluids. In that case, yin may fail to control yang which then counterflows and floats upward, thus giving rise to vacuity heat, ascendant liver yang hyperactivity, or even internal stirring of wind. On the other hand, overeating sugar and sweets or oily, fatty foods which engender dampness inter-

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Concha Haliotidis (*Shi Jue Ming*), 1 part, Rotundus Uncariae Cum Uncis (*Gou Teng*), 1 part, Radix Albus Paeoniae Lactiflorae (*Bai Shao*), 2 parts, Semen Zizyphi Spinosae (*Suan Zao Ren*), 2 parts, Fructus Schisandrae Chinensis (*Wu Wei Zi*), 3 parts, Semen Pruni Persicae (*Tao Ren*), 1 part, Radix Ligustici Wallichii (*Chuan Xiong*), 2 parts, Herado Seu Whitmania (*Shui Zhi*), 0.2 parts, Radix Polygoni Multiflori (*He Shou Wu*), 1.5 parts, Radix Bupleuri (*Chai Hu*), 1 part, Caulis Polygoni Multiflori (*Ye Jiao Teng*), 1 part, Cortex Albizziae Julibrissinis (*Hu Huan Pi*), 1 part, Radix Achyranthis Bidentatae (*Niu Xi*), 1.5 parts, uncooked Radix Rehmanniae (*Sheng Di*), 3 parts, and Flos Chrysanthemi Morifolii (*Ju Hua*), 1.2 parts. All these were ground into powder and encapsulated with each capsule containing 0.5g of powder. Four to six of these capsules were given three times per day after meals. The comparison group was administered nifedipine, 10-20mg orally three times per day. In the treatment group of 122 cases, 81 cases showed marked improvement, 27 cases showed some improvement, and 14 cases showed no improvement, for a total amelioration rate of 88.5%. In the comparison group of 60 cases, 41 cases showed marked improvement, 11 cases showed some improvement, and eight cases showed no improvement, for a total amelioration rate of 86.2%.

Zhang Xue-jian & Hu Ke-jie, "A Discussion of the Treatment of Diabetic Hypertension," *Hei Long Jiang Zhong Yi Yao* (Heilongjiang Journal of Chinese Medicine & Medicinals), #5, 1998, p. 21-22. The authors of this report treated 26 cases of diabetic hypertension. In this study, there were 17 men and nine women whose ages ranged from 51-68 years old, with an average age of 60.1 years. The course of these patients disease had lasted from 3.5-16 years. The patients were given amiloride, 5mg once per day orally upon rising in the morning, and *Niu Huang Jiang Ya Pian* (Bovine Bezoar Downbear Pressure Tablets),one pill orally two times per day. Of these 26 patients, 20 showed marked improvement, four showed some improvement, and two were without results using this protocol, and the total amelioration rate was 92.3%. The primary medicinals in *Niu Huang Jiang Ya Pian* are: Calculus Bovis (*Niu Huang*), Cornu Antelopis Saiga-tatarici (*Ling Yang Jiao*), Margarita (*Zhen Zhu*), Borneolum (*Bing Pian*), Radix Astragli Membranacei (*Huang Qi*), Tuber Curcumae (*Yu Jin*), and Radix Albus Paeoniae Lactiflorae (*Bai Shao*).

Representative case histories:

Case 1[1]

The patient was a 52 year old female agricultural worker who was diagnosed with diabetes and hypertension in Jan. 1985. Her main complaints were polydipsia, polyuria, and emaciation. Fasting blood glucose was 18.3mmol/L, urine glucose was (+++), and blood pressure was 22/13kPa. The patient was treated with glybenzcyclamide, *Fu Fang Jiang Ya Pian* (Compound Lower Pressure Tablets), and *Xiao Ke Wan* (Wasting & Thirsting Pills) which decreased the urine glucose temporarily. However, urine glucose rose again if she discontinued or reduced these medications. In the previous two months, the woman had begun to feel dizzy. This was accompanied by headache, vexation and agitation, heart palpitations or even tachycardia, easy anger, thirst with a desire to drink, dry, rough eyes, dry stools, frequent urination, a dark red tongue with scanty fur, and a bowstring, rapid pulse. Blood pressure was 24/13kPa.

Based on these signs and symptoms, the patient's patterns were categorized as liver-kidney yin vacuity complicated by heart yin insufficiency. The treatment principles were to nourish the kidneys and ameliorate the liver, nourish yin and subdue yang, assisted by nourishing the heart and quieting the spirit. The formula prescribed consisted of: Radix Trichosanthis Kirilowii (*Tian Hua Fen*) and stir-fried Semen Zizyphi Spinosae (*Suan Zao Ren*), 30g each, uncooked Radix Rehmanniae (*Sheng Di*) and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 15g each, Fructus Lycii Chinensis (*Gou Qi Zi*), Radix Dioscoreae Oppositae (*Shan Yao*), Fructus Corni Officinalis (*Shan Zhu Yu*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), and Semen Biotae Orientalis (*Bai Zi Ren*), 12g each, Sclerotium Poriae Cocos (*Fu Ling*) and Rhizoma Alismatis (*Ze Xie*), 10g each, Flos Chrysanthemi Morifolii (*Ju Hua*) and Cortex Radicis Moutan (*Dan Pi*), 9g each, and Radix Glycyrrhizae (*Gan Cao*), 6g. In addition, *Xiao Ke Wan* (Wasting & Thirsting Pills), 10 pills TID, and *Xiao Ke Ping* (Wasting & Thirsting Leveler), eight tablets TID were administered. The patient was advised to stop taking the *Fu Fang Jiang Ya Pian* and to control her diet, eating only 150g of carbohydrates per day.

After taking 15 *jì* of the above formula, the patient's dry mouth was relieved, her blood pressure was 20/13kPa, and FBG was (+). However, the patient still had a bitter taste in the mouth. Therefore, 10 *grams* of Rhizoma Coptidis Chinensis (*Huang Lian*) was added to her formula. After 15 more *jì*, FBG was 10mmol/L, fasting urine glucose was (+), and, two hours postprandial, it was (++). Blood pressure was now 21/12kPa. While her other symptoms became less severe, the woman still had blurred vision, which was diagnosed as diabetic cataracts through ophthalmological examination. The patient was prescribed an unidentified medicine and some eye drops for external application as well as Chinese medicinals to boost the *qi*

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

16

Diabetic Hyperlipoproteinemia

Dyslipidemia or abnormal blood lipid profiles are quite common in diabetes, especially type 2 diabetes. In fact, half of all type 2 diabetics exhibit some form of dyslipidemia.[1] Both type 1 and type 2 diabetes increase the risk of dyslipidemia threefold in men and possibly even more in women.[2] Commonly, such blood lipid dyscrasias take the form of abnormally high levels of low density lipids (LDL cholesterol) and triglycerides and abnormally low levels of high density lipids (HDL cholesterol). Hypertriglyceridemia is the most common lipid abnormality in diabetics.[3] Since blood lipid abnormalities, obesity, and type 2 diabetes seem to go hand in hand, researchers now question whether obesity and diabetes are the cause of such blood lipid dyscrasias. For instance, 80% of diabetics with dyslipidemia are obese.[4] It is now thought that hyperinsulinemia may cause up-regulation of LDL cholesterol binding and down-regulation of HDL cholesterol binding. Diabetic hyperlipoproteinemia is usually due to some combination of genetic predisposition, endocrinopathy, and excessive dietary intake of sugar and cholesterol. Smoking and obesity are reversible risk factors. Because the incidence of coronary heart disease rises in a linear fashion with the level of serum cholesterol, this condition is seen as a precursor to coronary heart disease via atherosclerosis.

The Western medical diagnosis of this condition is based on analysis of blood lipids and proteins. The Western medical treatment of diabetic hyperlipoproteinemia involves weight loss, dietary restriction of carbohydrates and alcohol, treatment of hypertension, treatment of coexisting hypertension with lipid-neutral antihypertensive agents, and administration of either niacin (in the form of niaspan) or gemfibrozil if blood lipids are not controllable by diet alone as is commonly the case in those with diabetes. The American Diabetes Association recommends an LDL cholesterol level of less than 100mg/dL for all diabetics.[5]

Chinese disease mechanisms:

Because diabetic hyperlipoproteinemia is often asymptomatic, at least in its beginning stages, it is difficult to discuss its Chinese medical disease mechanisms. However, if we consider two aspects of this condition, we can identify at least two main mechanisms. First, hyperlipoproteinemia is very much associated with obesity, and secondly, it leads to heart disease due to atherosclerosis. In Chinese medicine, adipose tissue or fat is seen as phlegm, dampness, and turbidity, while many of the symptoms of heart disease are indications of blood stasis. Therefore, phlegm turbidity and blood stasis are two important disease mechanisms in this condition, and the presence of one often leads to the presence of the other. For instance, the qi moves the blood. Therefore, enduring qi stagnation due to liver depression may result in blood stasis. Since the qi also moves water fluids, qi depression also commonly becomes complicated by phlegm depression. In that case, phlegm and stasis bind together, and their presence further aggravates liver depression qi stagnation.

Phlegm turbidity may also be due to disturbance in the function of the main viscera that control the movement and transformation of water fluids—the spleen and kidneys. As discussed above, spleen vacuity may be due to a number of different causes and mechanisms. It may be due to overeating sweets and sugars and oily, fatty foods. It may be due to liver depression attacking the spleen via the cowsil cycle. It may be due to too much anxiety and thinking, too little exercise, and too much fatigue. If the spleen becomes vacuous and weak, it may fail in its duty to move and transport water fluids which collect and

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Qin), 9g each, wine-fried Radix Et Rhizoma Rhei (*Da Huang*), 6-9g

Formula analysis: *Chai Hu, Yin Chen Hao, Huang Qin,* and *Hu Zhang* course the liver and disinhibit the gallbladder, clear heat and eliminate dampness. *Hou Po, Zhi Ke, Zhi Shi, Dan Shen, Chi Shao,* and *Bai Shao* rectify the qi and quicken the blood. *Da Huang* and *Ze Xie* free the flow of the bowels and drain turbidity.

Additions & subtractions: If there is stomach duct gloom, torpid intake, and loose stools, omit *Da Huang* and add nine grams each of Rhizoma Atractylodes Macrocephalae (*Bai Zhu*) and Pericarpium Citri Reticulatae (*Chen Pi*) and 21 grams of Semen Coicis Lachryma-jobi (*Yi Yi Ren*) in order to fortify the spleen, rectify the qi, and transform dampness. If there is liver-gallbladder qi counterflow with stomach loss of harmony and downbearing resulting in nausea and vomiting, add nine grams each of Flos Inulae Racemosae (*Xuan Fu Hua*) and Rhizoma Pinelliae Ternatae (*Ban Xia*) and 2-3 slices of uncooked Rhizoma Zingiberis (*Sheng Jiang*) to harmonize the stomach, downbear counterflow, and stop vomiting. If there is marked bilateral rib-side aching and pain, add 12 grams each of Rhizoma Corydalis Yanhusuo (*Yan Hu Suo*) and Fructus Meliae Toosendan (*Chuan Lian Zi*) and 15 grams of Cortex Albiziae Julibrissinis (*He Huan Pi*) to soothe the liver and regulate the qi. If there is simultaneous cholelithiasis, add nine grams each of Endothelium Corneum Gigeriae Galli (*Ji Nei Jin*) and Tuber Curcumae (*Yu Jin*) and 15 grams of Herba Desmodii Seu Lysimachiae (*Jin Qian Cao*) to disinhibit the gallbladder and expel stones.

Acupuncture & moxibustion: *Tai Chong* (*Liv 3*), *Yang Ling Quan* (GB 34), *He Gu* (LI 4), *San Yin Jiao* (Sp 6), *Xue Hai* (Sp 10)

Formula analysis: Draining *Tai Chong* and *He Gu* courses the liver and rectifies the qi. Draining *Yang Ling Quan* clears heat and disinhibits the gallbladder. Draining *San Yin Jiao* and *Xue Hai* quickens the blood and transforms stasis.

Additions & subtractions: For stomach duct gloom, nausea, and vomiting, add draining *Nei Guan* (*Per 6*) and *Zhong Wan* (*CV 12*). For diarrhea, add supplementing *Pi Shu* (*Bl 20*), *Wei Shu* (*Bl 21*), *Tian Shu* (*St 25*), and *Da Chang Shu* (*Bl 25*). For rib-side distention and pain, add draining *Zhang Men* (*Liv 13*) and *Qi Men* (*Liv 14*). For more marked heat, needle *Tai Chong* through to *Xing Jian* (*Liv 2*) with draining method.

Abstracts of representative Chinese research:

Xu Zhu-ting. "The Treatment of 76 Cases of Diabetes Accompanied by Hyperlipidemia with Self-composed *Jiu Wei Jiang Zhi Tang* (Nine Flavors Lower Fat Decoction)." *Shang Hai Zhong Yi Yao Za Zhi* (Shanghai Journal of Chinese Medicine & Medicinals), #12, 1999, p. 30-31. One hundred fourteen patients were included in this study, all of whom had type 2 diabetes complicated by hyperlipidemia. Fasting blood glucose and total cholesterol was equal to or more than 6.0mmol/L and triglycerides were equal to or more than 1.69mmol/L in all cases. These 114 patients were divided into two groups, the treatment group and the comparison group. Of the 76 patients in the treatment group, 42 were male and 34 were female aged 39-75, with an average age of 58.25 years. Fifteen patients also had high blood pressure, 10 also had coronary heart disease, and nine had concomitant retinopathy. In the comparison group, there were 21 males and 17 females aged 42-75, with an average age of 60.12 years. Three cases had concomitant hypertension, seven had coronary heart disease, and four had accompanying retinopathy. Two weeks before the commencement of treatment, all 114 patients stopped taking cholesterol-lowering medication. However, they continued taking 1-2 types of Western hypoglycemic medicines.

The treatment group was given the following Chinese medicinals: processed Radix Polygoni Multiflori (*He Shou Wu*), Rhizoma Alismatis (*Ze Xie*), and Radix Puerariae (*Ge Gen*), 30g each, Fructus Ligustri Lucidi (*Nu Zhen Zi*), Fructus Lycii Chinensis (*Gou Qi Zi*), and Herba Satgoni (*Hai Zao*), 15g each, Herba Artemisiae Capillaris (*Yin Chen Hao*) and Semen Pruni Persicae (*Tao Ren*), 12g each, and Hirudo Seu Whitmania (*Shui Zhi*), 3g. If there was headache or dizziness, 15 grams each of Rhizoma Gastrodiae Elatae (*Tian Ma*) and Ramulus Uncariae Cum Uncis (*Gou Teng*) were added. If there was chest oppression and heart palpitations, 30 grams of Radix Salviae Miltiorrhizae (*Dan Shen*) and 15 grams of Tuber Curcumae (*Yu Jin*) were added. If there was blurred vision, 12 grams of Scapus Et Inflorescentia Eriocaulonis Buergeriani (*Gu Jing Cao*) and 10 grams of Flos Immaturus Buddleiae Officinalis (*Mi Meng Hua*) were added. One *ji* was decocted in water and administered orally per day in two divided doses. The comparison group received 2.7g of niacin in pill form two times per day. Three months equaled one course of treatment for both groups.

A marked effect was defined as a reduction of total cholesterol equal to or more than 20%, a reduction in triglyc-

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

age. Based on these criteria, 23 cases with background DR were cured and five improved. Three cases with yellow macular pathological changes were cured, four improved, and one got no effect. Five cases with preproliferative DR were cured and four improved. One case with proliferative DR improved and one got no effect. Hence, a total of 31 cases were cured and 14 improved using this protocol.

Zhao Hong, "The Treatment of Diabetic Retinopathy Based on Pattern Discrimination," *He Nan Zhong Yi (Henan Chinese Medicine)*, #1, 2001, p. 54. There were 70 patients in this study with diabetic retinopathy, 48 men and 26 women aged 45-66 years old. All had suffered from diabetes for 8-20 years, and all had disease changes in both eyes. In addition to hypoglycemic and antidiabetic medications, these patients were administered Zhi Bai Di Huang Tang Jia Jian (Anemarrhena & Phellodendron Rehmannia Decoction with Additions & Subtractions): Radix Salviae Miltiorrhizae (Dan Shen), Radix Puerariae (Ge Gen), Rhizoma Alismatis (Ze Xie), Sclerotium Poriae Cocos (Fu Ling), and Radix Scrophulariae Ningpoensis (Xuan Shen), 30g each, Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Cortex Radicis Moutan (Dan Pi), uncooked Radix Rehmanniae (Sheng Di), Radix Dioscoreae Oppositae (Shan Yao), Fructus Corni Officinalis (Shan Zhu Yu), Radix Trichosanthis Kirilowii (Tian Hua Fen), and Semen Leonuri Heterophylli (Chong Wei Zi), 20g each, and Cortex Phellodendri (Huang Bai) and Lumbricus (Di Long), 15g each.

Prior to treatment, 17 cases had visual acuity less than 0.1 degree, 16 had 0.1-0.3 degrees, 11 had 0.4-0.6 degrees, and 24 had 0.6 to less than 1.0 degrees. After treatment, nine had visual acuity less than 0.1 degree; seven had 0.1-0.3 degrees, 11 had 0.4-0.6 degrees, and 43 had visual acuity of more than 0.6 degrees. Altogether, 88% of the patients in this study experienced an increase in their visual acuity. Among these, 10 cases of vision increased 1-3 steps, 16 improved 4-5 steps, and 15 improved more than five steps or grades. Only nine cases failed to experience a marked improvement in visual acuity from before to after this treatment.

REPRESENTATIVE CASE HISTORIES:

CASE 1[9]

The patient was a 50 year old female who had had diabetes for eight years and had experienced blurred vision for three years. Previously, the patient had been taking three tablets of glibenclamide[10] orally per day. Diet and controlling her diet had managed to keep her blood sugar 11.2-16.5mmol/L, her urine glucose (++-+), and her urine ketone (-). The patient's symptoms at the time of her initial examination were polydipsia, polyphagia, and polyuria, dizziness, blurred vision, dry mouth, a red tongue with scanty fur, and a fine, rapid pulse. In the last few days, the woman's vision was more blurry than usual. Ophthalmic examination confirmed diabetic retinopathy in both eyes complicated by cataracts.

Based on the above signs and symptoms, the woman's Chinese pattern discrimination was categorized as yin fluid depletion and vacuity with dryness and heat. Therefore she was prescribed Qi Ju Di Huang Wan Jia Jian (Lycium & Chrysanthemum Rehmannia Pills with Additions & Subtractions): Herba Ecliptae Prostratae (Han Lian Cao) and Rhizoma Imperatae Cylindricae (Bai Mao Gen), 30g each, Rhizoma Atractylodis (Cang Zhu), 20g, uncooked Radix Rehmanniae (Sheng Di), Radix Dioscoreae Oppositae (Shan Yao), and Rhizoma Alismatis (Ze Xie), 15g each, Fructus Lycii Chinensis (Gou Qi Zi), Radix Scrophulariae Ningpoensis (Xuan Shen), and Fructus Corni Officinalis (Shan Zhu Yu), 12g each, Flos Chrysanthemi Morifolii (Ju Hua), Scapus Et Inflorescentia Ericaulonis Buergeriani (Gu Jing Cao), Cortex Radicis Moutan (Dan Pi), and carbonized Herba Seu Flos Schizonepetae Tenuifoliae (Jing Jie Sui), 9g each. One ji was decocted in water and administered orally per day. In addition, the woman was also prescribed 80mg of glibenclamide three times per day.

After one half month of this regime, the woman's symptoms of diabetes were decreased with less frequent and less profuse urination and clearer vision. Her blood glucose was 11.2mmol/L and her urine glucose was (++). Ophthalmic examination showed that fresh retinal bleeding had stopped and the exudate was reduced. Twelve grams of Fructus Ligustri Lucidi (Nu Zhen Zi) were added to the original formula and this was administered continuously for another four months. At the end of that time, the woman's blood glucose was 8.4mmol/L and her urine glucose was (+). Eye examination showed no fresh bleeding and reabsorption of part of the extravasated blood.

CASE 2[11]

The patient was a 41 year old male who had been diabetic for eight years. Vision in both his eyes had declined over the last two years even though he had taken oral medications regularly for diabetes. During the previous week, he would suddenly lose his sight in both eyes and could only see his hands in front of his eyes. Examination revealed that the corpus vitreum contained accumulated

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

18

Diabetic Neuropathy

Diabetic neuropathy is a heterogeneous group of clinical disorders manifested by a variety of somatic and autonomic nerve cell defects caused by diabetes. All types of nerve fibers can be involved in diabetic neuropathy. With progression of the neuropathy comes progressive axonal degeneration and loss of myelinated fibers. Diabetic peripheral polyneuropathy, the most common of these disorders, is characterized by loss or reduction of sensation and vibration in the feet and, in some cases, the hands as well as pain and weakness in the feet. Nerve damage caused by diabetes can also lead to problems with autonomic neuropathy involving the digestive tract, heart, and sexual organs, leading to delayed gastric emptying, diarrhea, constipation, dizziness, bladder paralysis, and impotence. Clinical presentation varies based on the distribution and types of nerves involved, and some patients have signs and symptoms that cannot be ascribed to any one neuropathic category. In general, nerve fiber degeneration and neuropathy associated with diabetes affects 60-70% of both type 1 and type 2 diabetes patients. Neuropathy is one of the earliest detectable signs of long-term glucotoxicity during the "silent" prediabetes stage.[1,2]

Three mechanisms have been postulated to explain the neurodestructive effects of prolonged hyperglycemia: 1) the production of destructive metabolic products, such as sorbitol, 2) protein glycation, and 3) damage resulting from vascular dysfunction, such as increased vascular resistance, abnormal thickening of endoneural blood vessel walls and atherosclerosis, resulting in ischemia. It is also thought by some that immunologic factors may play a part in some diabetic neuropathies, especially autonomic neuropathies. Researchers have suggested that, in diabetic neuropathy, the immune system may target an antigen specific for the peripheral nerve and, possibly, the pancreas. In addition, lymphocytic infiltration in the nerves of some diabetics with neuropathy suggests an immunogenic pathogenesis.[3]

The Western medical classification of diabetic neuropathies is based on the anatomic distribution of the affected nerves, keeping in mind that many diabetic patients have overlapping clinical features and may not be easily exclusively categorized.

A. Mononeuropathies

1. Peripheral mononeuropathy refers to isolated peripheral nerve lesions most commonly seen in older individuals with type 2 diabetes. However, this is not a commonly seen condition. Patients with this type of diabetic neuropathy present with acute onset of pain, paresthesia, and motor weakness along the distribution of the affected nerve. This type of peripheral neuropathy often occurs at sites of external pressure. The peroneal, median, ulnar, sciatic, and femoral nerves are often affected. This type of neuropathy has a high degree of spontaneous reversibility.

2. Cranial mononeuropathy refers to an isolated lesion of cranial nerves III, IV, or VI which control pupillary response and eye movements. The patient presents with unilateral forehead pain, eye pain, and diplopia that develops over a few hours. These neuropathies often gradually improve during the course of 6-12 weeks without treatment other than good glycemic control. However, this type of neuropathy must be differentiated from other potentially life-threatening conditions, such as cerebral aneurysm or tumor, which produce similar symptoms but on a different time scale.

3. Mononeuropathy multiplex refers to impairment of two or more single motor neurons involved at different times.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

muscle emaciation, a sallow yellow, lusterless facial complexion, pale white lips and nails, profuse or scanty sweating, fatigue, lassitude of the spirit, shortness of breath, disinclination to speak and/or faint, weak voice, heart palpitations, dizziness, a pale tongue with thin, white fur, and a fine, forceless pulse

Treatment principles: Regulate and supplement the qi and blood

Rx: Huang Qi Gui Zhi Wu Wu Tang Jia Jian (Astragalus & Cinnamon Twigs Five Materials Decoction with Additions & Subtractions)

Ingredients: Radix Astragali Membranacei (*Huang Qi*), 30g, Radix Albus Paeoniae Lactiflorae (*Bai Shao*) and Radix Achyranthis Bidentatae (*Niu Xi*), 15g each, Radix Angelicae Sinensis (*Dang Gui*), 12g, Ramulus Cinnamomi Cassiae (*Gui Zhi*), Radix Gentianae Macrophyllae (*Qin Jiao*), and Ramulus Mori Albi (*Sang Zhi*), 9g each

Formula analysis: A heavy dose of Huang Qi supplements qi vacuity, while the combination of it plus Dang Gui and Bai Shao supplements blood vacuity. Gui Zhi, Qin Jiao, and Sang Zhi warm, free the flow, and extend or spread the qi and blood to the four corners (*i.e.*, the four extremities).

Additions & subtractions: If there is mostly qi vacuity, use Bu Zhong Yi Qi Tang Jia Wei (Supplement the Center & Boost the Qi Decoction with Added Flavors): Astragali Membranacei (*Huang Qi*), 30g, Radix Angelicae Sinensis (*Dang Gui*), 12g, Radix Codonopsitis Pilosulae (*Dang Shen*), Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), Radix Clematidis Chinensis (*Wei Ling Xian*), Rhizoma Curcumae Longae (*Jiang Huang*), and Cortex Radicis Acanthopanacis Gracilistylis (*Wu Jia Pi*), 9g each, Pericarpium Citri Reticulatae (*Chen Pi*) and mix-fried Radix Glycyrrhizae (*Gan Cao*), 6g each, Rhizoma Cimicifugae (*Sheng Ma*), 4.5g, and Radix Bupleuri (*Chai Hu*) and Radix Lateralis Praeparatus Aconiti Carmichaeli (*Fu Zi*), 3g each.

For predominantly blood vacuity, use Si Wu Tang Jia Wei (Four Materials Decoction with Added Flavors): Radix Astragali Membranacei (*Huang Qi*), 30g, Radix Albus Paeoniae Lactiflorae (*Bai Shao*), 18g, cooked Radix Rehmanniae (*Shu Di*) and Radix Angelicae Sinensis (*Dang Gui*), 12g each, Radix Ligustici Wallichii (*Chuan Xiong*), Radix Codonopsitis Pilosulae (*Dang Shen*), and Ramulus Cinnamomi Cassiae (*Gui Zhi*), 9g each.

If there is concomitant blood stasis, one can add nine grams each of Flos Carthami Tinctorii (*Hong Hua*) and Semen Pruni Persicae (*Tao Ren*) to any of the above formulas.

Acupuncture & moxibustion: Ge Shu (Bl 17), Gan Shu (Bl 18), Pi Shu (Bl 20), Zu San Li (St 36), San Yin Jiao (Sp 6), local points depending on the site of pain or numbness

Formula analysis: Supplementing Ge Shu and Gan Shu supplements the liver and nourishes the blood. Supplementing Pi Shu, Zu San Li, and San Yin Jiao supplements the spleen, the latter heaven root of the engenderment and transformation of qi and blood. In addition, Zu San Li is the main point for all diseases of the lower extremities. Even supplementing-even draining the local points moves the qi and quickens the blood in the network vessels.

Additions & subtractions: If there is pain in the heel, needle Kun Lun (Bl 60). If there is tingling or burning on the sole of the foot, add Yong Quan (K) 1). If there is pain, tingling, or numbness of the toes, needle the Bu Feng (M-LE-8).

2. Qi stagnation & blood stasis pattern

Main symptoms: Numbness of the four extremities accompanied by distention and pain or pain like being pricked by a needle which is soothed when it is pressed, dry, scaly skin, a dark, dusky facial complexion, purplish lips, a dark or purple tongue or possible static macules or spots on the tongue with thin, somewhat dryish fur, and a bowstring, choppy pulse

---

Note: In real life, this pattern mostly complicates other patterns of diabetic peripheral neuropathy. It is rarely, if ever, met in this simple, discrete form.

Treatment principles: Move the qi, quicken the blood, and free the flow of the network vessels

Rx: Si Ni San (Four Counterflows Powder) plus Tao Hong Si Wu Tang (Persica & Carthamus Four Materials Decoction) with additions and subtractions

Ingredients: Radix Salviae Miltiorrhizae (*Dan Shen*), 30g, cooked Radix Rehmanniae (*Shu Di*), Radix Ligustici Wallichii (*Chuan Xiong*), and Radix Albus Paeoniae Lactiflorae (*Bai Shao*), 15g each, Radix Angelicae Sinensis (*Dang Gui*), 12g, Radix Bupleuri (*Chai Hu*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Semen Pruni

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

4). For lumbar pain, add Shen Shu (BL 23) and Da Chang Shu (BL 25).

2. Static blood obstructing & stagnating pattern

Main symptoms: Limpness, weakness, and lack of strength of the four limbs, possible numbness and insensitivity, possible spasm and cramping, inhibited bending and stretching, dry, scaly skin, cyanotic lips, a purplish tongue, possible static macules or spots on the tongue, and a slow, choppy, stagnant pulse.

Treatment principles: Quicken the blood and transform stasis.

Rx: Tao Hong Si Wu Tang Jia Jian (Persica & Carthamus Four Materials Decoction with Additions & Subtractions)

Ingredients: Radix Achyranthis Bidentatae (Niu Xi), Radix Astragali Membranacei (Huang Qi), Radix Albus Paeoniae Lactiflorae (Bai Shao), Radix Ligustici Wallichii (Chuan Xiong), and cooked Radix Rehmanniae (Shu Di), 15g each, Radix Angelicae Sinensis (Dang Gui), 12g, Semen Pruni Persicae (Tao Ren) and Flos Carthami Tinctorii (Hong Hua), 9g each.

Formula analysis: *Shu Di, Dang Gui, Chuan Xiong,* and *Bai Shao* supplement the blood. *Tao Ren* and *Hong Hua* quicken the blood and transform stasis. *Huang Qi* boosts the qi in order to strengthen the quickening of the blood, and *Niu Xi* quickens the blood and strengthens the bones.

Additions & subtractions: If there is simultaneous damp heat, add nine grams each of Rhizoma Anemarrhenae (Zhi Mu) and Cortex Phellodendri (Huang Bai) to dry dampness and clear heat. If phlegm is mixed with blood stasis, add 12 grams each of Rhizoma Typhonii Terrestris (Bai Fu) and Sclerotium Poriae Cocos (Fu Ling), nine grams of Pericarpium Citri Reticulatae (Chen Pi), and three slices of uncooked Rhizoma Zingiberis (Sheng Jiang). If weakening disease has entered the network vessels, add nine grams each of Bulbus Materialis (Quan Xie), Euphyphaga Seu Opisoplatiae (Tu Bie Chong), and Zaocys Dhumnades (Wu Shao She) to free the flow of the network vessels.

Acupuncture & moxibustion: Xue Hai (Sp 10), He Gu (LI 4), Tai Chong (Liv 3), local points depending on the affected areas.

Formula analysis: Draining *Xue Hai* quickens the blood and transforms stasis. Draining *Tai Chong* and *He Gu* creates the liver and sacrifices the qi, remembering that the qi moves the blood. Draining the local points frees the flow of the network vessels.

Additions & subtractions: One may gouge the affected areas and/or bleed any visibly engorged venules in order to free the flow of the network vessels.

Note: Fine needle treatment by itself is not very effective for treating blood stasis.

---

3. Liver-kidney depletion & vacuity pattern

Main symptoms: Single-sided or bilateral lower extremity disturbances in sensation, pain which comes and goes, inhibition of bending and stretching the lower extremities, possible atrophy and loss of function, numbness of the skin, lower and upper back aching and limpness, dizziness, tinnitus, impotence, menstrual irregularities, a pale red tongue with scanty fur, and a deep, fine or fine and rapid pulse.

Treatment principles: Enrich and supplement the liver and kidneys.

Rx: Hu Qian Wan Jia Jian (Crouching Tiger Pills with Additions & Subtractions)

Ingredients: Cooked Radix Rehmanniae (Shu Di), Radix Albus Paeoniae Lactiflorae (Bai Shao), and Radix Achyranthis Bidentatae (Niu Xi), 15g each, Radix Angelicae Sinensis (Dang Gui) and Gelatinum Cornu Cervi (E Jiao Jiao), 12g each, Plastrum Testudinis (Gui Ban), Cortex Phellodendri (Huang Bai), Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), and Herba Cynomorii Songarici (Suo Yang), 9g each.

Formula analysis: *Suo Yang* supplements the kidneys and strengthens the bones. *Shu Di, Gui Ban, Huang Bai,* and *Zhi Mu* enrich yin and clear heat. *Niu Xi* strengthens the sinews and bones. *E Jiao Jiao* nourishes the blood at the same time as it invigorates yang, while *Dang Gui* and *Bai Shao* also supplement the liver and nourish the blood.

Additions & subtractions: If yin vacuity is marked, add 12 grams each of Radix Scrophulariae Ningpoensis (*Xuan Shen*) and Radix Dioscoreae

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

5. Phlegm turbidity obstruction & stagnation pattern

Main symptoms: Heart palpitations, heart chest gloom, oppression, distention, and fullness, profuse phlegm, scanty eating, abdominal distention, possible nausea, slimy, white or glossy, slimy tongue fur, and a bowstring, slippery pulse

Treatment principles: Rectify the qi and transform phlegm, calm the heart and quiet the spirit

Rx: *Duo Tan Tang Jia Jian* (Abduct Phlegm Decoction with Additions & Subtractions)

Ingredients: Sclerotium Poriae Cocos (*Fu Ling*) and Semen Ziziphi Spinosae (*Suan Zao Ren*), 12g each, Rhizoma Pinelliae Ternatae (*Ban Xia*), Pericarpium Citri Reticulatae (*Chen Pi*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Radix Polygalae Tenuifoliae (*Yuan Zhi*), Semen Biotae Orientalis (*Bai Zi Ren*), Rhizoma Acori Graminei (*Shi Chang Pu*), and Tuber Curcumae (*Yu Jin*), 9g each, and bile-treated Rhizoma Arisaematis (*Dan Nan Xing*) and Radix Glycyrrhizae (*Gan Cao*), 6g each

Formula analysis: *Ban Xia* and *Chen Pi* rectify the qi and transform phlegm. *Fu Ling* fortifies the spleen and seeps dampness. *Zhi Shi* and *Dan Nan Xing* move the qi and eliminate phlegm. *Shi Chang Pu* and *Yu Jin* transform phlegm, free the flow of the network vessels, and open the orifices. *Suan Zao Ren*, *Bai Zi Ren*, and *Yuan Zhi* nourish the heart and quiet the spirit, and *Gan Cao* harmonizes the center and supplements earth.

Additions & subtractions: If there is phlegm heat harassing the heart, one can use *Huang Lian Wen Dan Tang* (Coptis Warm the Gallbladder Decoction): Rhizoma Pinelliae Ternatae (*Ban Xia*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Pericarpium Citri Reticulatae (*Chen Pi*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), and Caulis Bambusae In Taenia (*Zhu Ru*), 9g each, Radix Glycyrrhizae (*Gan Cao*), 3g, and Fructus Ziziphi Jujubae (*Da Zao*), 3-5 pieces.

If there is phlegm heat with simultaneous qi vacuity, one can use *Shi Wei Wen Dan Tang Jia Jian* (Eleven Flavors Warm the Gallbladder Decoction with Additions & Subtractions): Concha Ostreae (*Mu Li*) and Caulis Polygoni Multiflori (*Ye Jiao Teng*), 15g each, Sclerotium Poriae Cocos (*Fu Ling*) and Semen Ziziphi Spinosae (*Suan Zao Ren*), 12g each, Caulis Bambusae In Taenia (*Zhu Ru*), Rhizoma Pinelliae Ternatae (*Ban Xia*), Rhizoma Acori Graminei (*Shi Chang Pu*), Radix Codonopsis Pilosulae (*Dang Shen*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), and Radix Angelicae Sinensis (*Dang Gui*), 9g each, Pericarpium Citri Reticulatae (*Chen Pi*), rice-fried Radix Glycyrrhizae (*Gan Cao*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), and Radix Polygalae Tenuifoliae (*Yuan Zhi*), 6g each, Rhizoma Coptidis Chinensis (*Huang Lian*), 3-6g, Fructus Ziziphi Jujubae (*Da Zao*), 3-5 pieces, and uncooked Rhizoma Zingiberis (*Sheng Jiang*), 2-3 slices.

Acupuncture & moxibustion: *Feng Long* (St 40), *Dan Zhong* (CV 17), *Zhong Wan* (CV 12), *Nei Guan* (Per 6)

Formula analysis: Draining *Feng Long* transforms phlegm. Draining *Dan Zhong* loosens the chest. Draining *Zhong Wan* harmonizes the stomach and disperses distention, and draining *Nei Guan* loosens the chest, regulates the center, and quiets the spirit.

Additions & subtractions: If there is phlegm heat, add draining *Xing Jian* (Liv 2) and *Da Ling* (Per 7). If there is concomitant spleen vacuity, add even supplementing-even draining *Zu San Li* (St 36) and supplementing *Pi Shu* (Bl 20) and *Wei Shu* (Bl 21). If there is simultaneous blood stasis, add draining *Xue Hai* (Sp 10). If there is liver depression qi stagnation, add draining *Tai Chong* (Liv 3) and *He Gu* (LI 4).

6. Heart blood stasis & obstruction pattern

Main symptoms: Heart palpitations, chest oppression, rib-side pain, if severe, pain radiating to the shoulder, *dark*, purplish face and lips, counterflow chilling of the four limbs, a dry mouth and parched throat, a bluish green tongue or possible static macules or spots and white or yellow fur, and a choppy, possibly bound or regularly intermittent pulse

Treatment principles: Move the qi and quicken the blood, transform stasis and free the flow of the network vessels

Rx: *Xue Fu Zhu Yu Tang Jia Jian* (Blood Mansion Dispel Stasis Decoction with Additions & Subtractions)

Ingredients: Radix Salviae Miltiorrhizae (*Dan Shen*), 30g, Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), 15g, Radix Angelicae Sinensis (*Dang Gui*), uncooked Radix Rehmanniae (*Sheng Di*), Radix Ligustici Wallichii (*Chuan Xiong*), and Radix Achyranthis Bidentatae (*Niu Xi*), 12g each, Flos Carthami Tinctorii (*Hong Hua*), Semen Persicae (*Tao Ren*), Fructus Immaturus Citri Aurantii (*Zhi*

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

courses the liver and rectifies the qi. Draining Nei Guan harmonizes the liver and spleen, quiets the spirit and tranquilizes the mind. Draining Qi Hai rectifies the qi of the lower burner, while even supplementing-even draining San Yin Jiao treats urogenital diseases.

Additions & subtractions: If there is concomitant yin vacuity, add supplementing Shen Shu (Bl 23) and Tai Xi (Ki 3). If there is concomitant spleen vacuity, add supplementing Pi Shu (Bl 20) and Wei Shu (Bl 21). If there is simultaneous blood stasis, add draining Xue Hai (Sp 10). If there is simultaneous blood vacuity, add supplementing Ge Shu (Bl 17) and even supplementing-even draining Gan Shu (Bl 18). If there is concomitant lung-stomach fluid dryness, add even supplementing-even draining of Zhao Hai (Ki 6), Lie Que (Lu 7), and/or Nei Ting (St 44). If there is concomitant kidney yang vacuity, add moxa at Shen Shu, Ming Men (GV 4), and Guan Yuan (CV 4). If there is concomitant liver depression transforming heat, add draining Xing Jian (Liv 2) and Yang Ling Quan (GB 34).

Diabetic neurogenic bladder

1. Central qi insufficiency pattern

Main symptoms: Lower abdominal sagging and distention, occasional desire to urinate and inability to, lassitude of the spirit, shortness of breath, devitalized eating and drinking, reduced appetite, faint, weak voice, a pale tongue with thin, white fur, and a deep, weak pulse.

Treatment principles: Supplement the center and boost the qi, transform the qi and move water.

Rx: Bu Zhong Yi Qi Tang (Supplement the Center & Boost the Qi Decoction) plus Chan Ze Tang (Spring Pond Decoction).

Ingredients: Sclerotium Polypori Umbellati (Zhu Ling), 30g, Radix Astragali Membranacei (Huang Qi), 15g, Sclerotium Poriae Cocos (Fu Ling), 12g, Radix Panacis Ginseng (Ren Shen), Radix Angelicae Sinensis (Dang Gui), Pericarpium Citri Reticulatae (Chen Pi), Rhizoma Atractylodis Macrocephalae (Bai Zhu), Radix Bupleuri (Chai Hu), Ramulus Cinnamomi Cassiae (Gui Zhi), and Rhizoma Alismatis (Ze Xie), 9g each, and Rhizoma Cimicifugae (Sheng Ma) and Radix Glycyrrhizae (Gan Cao), 6g each.

Formula analysis: Huang Qi, Ren Shen, and Bai Zhu fortify the spleen and boost the qi. Dang Gui nourishes the blood in order to better supplement the qi at the same time as it emollients and harmonizes the liver and thus, indirectly, promotes coursing and discharge. Zhu Ling, Fu Ling, and Ze Xie seep dampness and distribbit water. Chen Pi distribbits the qi mechanism and transforms dampness. Chai Hu and Sheng Ma upbear yang and lift the fallen. Gui Zhi promotes qi transformation, and Gan Cao harmonizes all the other medicinals in the formula.

Additions & subtractions: If there is urinary dribbling and dripping, redness, and choppiness, add nine grams each of Herba Pyrrosiae (Shi Wei) and Semen Plantaginis (Che Qian Zi).

Acupuncture & moxibustion: Zu San Li (St 36), Bai Hui (GV 20), Yin Ling Quan (Sp 9), San Yin Jiao (Sp 6), Zhong Ji (CV 3).

Formula analysis: Supplementing Zu San Li and San Yin Jiao fortifies the spleen and boosts the qi. Mounting Bai Hui upbears yang and lifts the fallen. Even supplementing-even draining Yin Ling Quan and Zhong Ji rectifies and regulates the qi of the bladder and seeps dampness.

Additions & subtractions: If there is marked fatigue and loose stools, add supplementing Pi Shu (Bl 20) and Wei Shu (Bl 21). If there is liver depression, add draining Tai Chong (Liv 3) and He Gu (LI 4). If there is concomitant kidney yang vacuity, add moxa at Shen Shu (Bl 23) and Ming Men (GV 4). If there is concomitant yin vacuity, add supplementing Tai Xi (Ki 3) and Shen Shu (Bl 23).

2. Kidney qi insufficiency pattern

Main symptoms: Lower abdominal distention and fullness, urine expelled without force, possible dribbling and dripping and uneasy flow, even possible urinary incontinence, low back and knee soreness and aching, lack of warmth in the four limbs, a pale tongue with thin, white fur, and a deep, fine, slow, weak pulse.

Note: The above signs and symptoms describe a simple, discrete kidney qi shading into a kidney yang vacuity pattern. In real-life Western patterns with diabetes, such a pure kidney vacuity pattern is not commonly seen. Therefore, the above signs and symptoms will be modified by other disease mechanisms, especially any sort of heat evils or yang hyperactivity.

Treatment principles: Supplement the kidneys, transform the qi, and distribbit urination.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Additions & subtractions: If there is simultaneous yin vacuity, add supplementing Tai Xi (Ki 3), Shen Shu (Bl 23), and San Yin Jiao (Sp 6). If there is constipation, add draining Tian Shu (St 25), Da Chang Shu (Bl 25), Zhi Gou (TB 6), and Yang Ling Quan (GB 34) and supplementing Zhao Hai (Ki 6). If there is concomitant blood stasis, add draining Xue Hai (Sp 10) and even supplementing-even draining San Yin Jiao (Sp 6).

2. Spleen vacuity & phlegm congelation pattern

Main symptoms: Difficulty swallowing, stomach duct glomus and oppression, scanty intake, bodily fatigue, nausea, profuse phlegm, sticks, slimy tongue fur, and a soggy, moderate (i.e., relaxed or slightly slow) pulse

Treatment principles: Fortify the spleen and transform phlegm, disinhibit the qi mechanism and harmonize the stomach

Rx: *Si Jun Zi Tang* (Four Gentlemen Decoction) plus *Er Chen Tang* (Two Aged [Ingredients] Decoction) with additions and subtractions

Ingredients: Radix Codonopsitis Pilosulae (*Dang Shen*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), Pericarpium Citri Reticulatae (*Chen Pi*), and Rhizoma Pinelliae Ternatae (*Ban Xia*), 9g each, and Cortex Magnoliae Officinalis (*Hou Po*) and Radix Glycyrrhizae (*Gan Cao*), 6g each

Formula analysis: *Dang Shen*, *Bai Zhu*, *Fu Ling*, and *Gan Cao* all fortify the spleen and supplement the qi. *Ban Xia* and *Chen Pi* rectify the qi and transform phlegm, harmonize the stomach and stop vomiting. *Hou Po* also rectifies the qi and transforms turbidity, while *Gan Cao* harmonizes all the other medicinals in the formula.

Additions & subtractions: If there are loose stools and poor appetite, add nine grams each of Radix Dioscoreae Oppositae (*Shan Yao*), Semen Nelumbinis Nuciferae (*Lian Zi Rou*), and Endothelium Corneum Gigeriae Galli (*Ji Nei Jin*). If there is simultaneous qi stagnation, add nine grams each of Radix Bupleuri (*Chai Hu*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Radix Aucklandiae Lappae (*Mu Xiang*), and Fructus Citri Sacrodactylis (*Fo Shou*) to rectify the qi and open depression.

Acupuncture & moxibustion: Pi Shu (Bl 20), *Wei Shu* (Bl 21), *Zu San Li* (St 36), *Feng Long* (St 40), *Zhong Wan* (CV 12)

Formula analysis: Supplementing *Pi Shu*, *Wei Shu*, and *Zu San Li* fortifies the spleen and supplements the qi, while even supplementing-even draining *Feng Long* and *Zhong Wan* transforms phlegm.

Additions & subtractions: If there are loose stools, add supplementing Tian Shu (St 25) and *Da Chang Shu* (Bl 25). If there is simultaneous liver depression qi stagnation, add draining *Tai Chong* (Liv 3) and *He Gu* (LI 4).

3. Spleen-stomach vacuity weakness pattern

Main symptoms: Chest and epigastric discomfort, gloom, congestion, distention, and fullness, drum distention after meals, decreased appetite, a liking for heat and a liking for pressure, abhorrence of warmth leading to soothing, lack of warmth in the four extremities, shortness of breath, lack of strength, bodily fatigue, disinclination to speak and/or a faint, weak voice, loose stools, a pale tongue with white fur, and a deep, fine, or vacuous, large, forceless pulse

Treatment principles: Fortify the spleen and supplement the qi, upbear the clear and downbear the turbid

Rx: *Bu Zhong Yi Qi Tang* (Supplement the Center & Boost the Qi Decoction)

Ingredients: Radix Astragali Membranacei (*Huang Qi*) and Radix Codonopsitis Pilosulae (*Dang Shen*), 15g each, Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), 12g, Radix Angelicae Sinensis (*Dang Gui*), Pericarpium Citri Reticulatae (*Chen Pi*), and Radix Bupleuri (*Chai Hu*), 9g each, and mix-fried Radix Glycyrrhizae (*Gan Cao*) and Rhizoma Cimicifugae (*Sheng Ma*), 6g each

Formula analysis: *Huang Qi*, *Dang Shen*, *Bai Zhu*, and mix-fried *Gan Cao* supplement the spleen and boost the qi. *Chen Pi* rectifies the qi and transforms stagnation, while *Chai Hu* and *Sheng Ma* upbear and lift clear yang.

Additions & subtractions: If there is simultaneous yang vacuity, one can add 3-9 grams of Radix Lateralis Praeparatus Aconiti Carmichaeli (*Fu Zi*). If dampness is exuberant, add 12 grams of Sclerotium Poriae Cocos (*Fu Ling*) and nine grams of Rhizoma Alismatis (*Ze Xie*). If center cold is severe, add 9-12 grams of Fructus Evodiae Rutecarpae (*Wu Zhu Yu*) and 18-21 grams of uncooked Rhizoma Zingiberis (*Sheng Jiang*). If there is simultaneous liver depression qi stagnation, add 9-15 grams of Radix

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Additions & subtractions: If there is concomitant liver depression, add draining *Qi Hai* (CV 6), *Zhi Gou* (TB 6), and *Yang Ling Quan* (GB 34). If there is concomitant kidney yang vacuity, add moxibustion at *Shen Shu* (Bl 23), *Ming Men* (GV 4), and *Pi Shu* and *Wei Shu*. If there is anal prolapse, hemorrhoids, or orthostatic hypotension, moxa *Bai Hui* (GV 20).

3. Blood vacuity & yin depletion constipation pattern

Main symptoms: Dry stools which are difficult to expel, an emaciated body, a dry throat with scanty fluids, a sallow yellow or pale, white lusterless facial complexion, heart palpitations, dizziness, pale white lips and nails, a pale or possibly red tongue with scanty fluids depending on whether blood or yin vacuity predominate, and a fine or firm, rapid, forceless pulse.

Treatment principles: Nourish the blood and enrich yin, moisten dryness and free the flow of the stools.

Rx: *Run Chang Tang Jia Jian* (Moisten the Intestines Decoction with Additions & Subtractions)

Ingredients: Uncooked Radix Rehmanniae (*Sheng Di*), 20g, Semen Trichosanthis Kirilowii (*Gua Lou Ren*), 15g, Radix Angelicae Sinensis (*Dang Gui*) and Semen Cannabis Sativae (*Huo Ma Ren*), 12g each, and Semen Pruni Persicae (*Tao Ren*) and Fructus Citri Aurantii (*Zhi Ke*), 9g each.

Formula analysis: *Dang Gui* and *Sheng Di* supplement the blood and enrich yin, *Huo Ma Ren*, *Tao Ren*, and *Gua Lou Ren* moisten the intestines and free the flow of the stools. *Zhi Ke* breaks the qi and moves it downward.

Additions & subtractions: If there is simultaneous heat, add nine grams each of Radix Polygoni Multiflori (*He Shou Wu*), Rhizoma Polygonati Odorati (*Yu Zhu*), Radix Scrophulariae Ningpoensis (*Xuan Shen*), and Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*) to engender fluids and clear heat.

Acupuncture & moxibustion: *San Yin Jiao* (Sp 6), *Zhao Hai* (Ki 6), *Ge Shu* (Bl 17), *Gan Shu* (Bl 18), *Shen Shu* (Bl 23), *Da Chang Shu* (Bl 25)

Formula analysis: Supplementing *San Yin Jiao* nourishes and enriches the liver and kidneys. Supplementing *Zhao Hai* moistens dryness and clears vacuity heat. Supplementing *Ge Shu*, *Gan Shu*, *Shen Shu*, and *Da Chang Shu* nourishes the blood and enriches yin, moistens the intestines and frees the flow of the stools.

Additions & subtractions: If there is concomitant liver depression qi stagnation, add draining *He Gu* (LI 4), *Zhi Gou* (TB 6), *Qi Hai* (CV 6), and *Yang Ling Quan* (GB 34). If there is concomitant spleen qi vacuity, add supplementing *Zu San Li* (St 36). If there is concomitant kidney yang vacuity, add moxibustion at *Shen Shu*, *Ming Men* (GV 4), and *Guan Yuan* (CV 4).

Diabetic diarrhea

1. Damp heat obstructing the center pattern

Main symptoms: Abdominal pain and diarrhea, urgent, forceful diarrhea, foul-smelling stools, bright yellow or dark colored stools, possible burning heat around the anus, oral thirst, shiny, yellow tongue fur, and a slippery, rapid pulse.

Treatment principles: Clear heat, transform dampness, and stop diarrhea.

Rx: *Ge Gen Qin Lian Tang Jia Jian* (Pueraria, Scutellaria & Coptis Decoction with Additions & Subtractions)

Ingredients: Radix Puerariae (*Ge Gen*) and stir-fried Semen Plantaginis (*Che Qian Zi*), 15g each, Radix Scutellariae Baicalensis (*Huang Qin*), Radix Aucklandiae Lappae (*Mu Xiang*), and Herba Agastachis Seu Pogostemi (*Huo Xiang*), 9g each, Rhizoma Coptidis Chinensis (*Huang Lian*) and Radix Glycyrrhizae (*Gan Cao*), 6g each.

Formula analysis: *Ge Gen* engenders fluids and stops thirst, upbears the clear and stops diarrhea. *Huang Qi* and *Huang Lian* clear heat and eliminate dampness from the stomach and intestines. *Mu Xiang* and *Huo Xiang* aromatically transform turbidity and arouse the spleen, while *Gan Cao* harmonizes all the other medicinals in the formula.

Additions & subtractions: If there is concomitant food stagnation, add nine grams each of Massa Medica Fermentata (*Shen Qu*), Fructus Crataegi (*Shan Zha*), and Fructus Germinatus Hordei Vulgaris (*Mai Ya*). If there is concomitant spleen qi vacuity, add nine grams each of Radix Codonopsitis Pilosulae (*Dang Shen*), Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), and Sclerotium Poriae Cocos (*Fu Ling*) and use stir-fried *Gan Cao*. If smoldering damp heat has damaged yin fluids, add

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Acupuncture & moxibustion: *Gao Huang Shu* (BL 43), *Da Zhui* (GV 14), *Zu San Li* (St 36)

Formula analysis: Supplementing *Gao Huang Shu* and *Da Zhui* supplements the yang qi in the upper body in general and the upper sea of qi in particular. Supplementing *Zu San Li* fortifies the spleen and boosts the qi.

Additions & subtractions: If intake is decreased, add even supplementing-even draining *Zhong Wan* (CV 12). If there is abdominal distention, add even supplementing-even draining *Zhong Wan* and *Gong San* (Sp 4). If there are loose stools, add supplementing *Tian Shu* (St 25), *Pi Shu* (BL 20), *Wei Shu* (BL 21), and *Da Chang Shu* (BL 25). If there is concomitant kidney yang vacuity, add supplementing *Fu Liu* (Ki 7).

3. Heart-kidney yin vacuity pattern

Main symptoms: Sweating from the heart region of the chest, night sweats, vacuity vexation, insomnia, profuse dreams, heart palpitations, impaired memory, dizziness, tinnitus, dry mouth and parched throat, low back and knee soreness and limpness, steaming bones, tidal heat, short, reddish urination, a red tongue with scanty fur, and a fine, rapid pulse

Treatment principles: Supplement and boost the heart and kidneys, constrain yin and stop sweating

Rx: *Liu Wei Di Huang Wan Jia Wei* (Six Flavors Rehmannia Pills with Added Flavors)

Ingredients: Fructus Corni Officinalis (*Shan Zhu Yu*) and Radix Dioscoreae Oppositae (*Shan Yao*), 15g each, cooked Radix Rehmanniae (*Shu Di*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, and Cortex Radicis Moutan (*Dan Pi*), Rhizoma Alismatis (*Ze Xie*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), Radix Stellariae Dichotomae (*Yin Chai Hu*), and Cortex Radicis Lycii Chinensis (*Di Gu Pi*), 9g each

Formula analysis: *Shan Zhu Yu*, *Shu Di*, and *Shan Yao* supplement the heart and kidneys and enrich true yin. *Fu Ling* and *Ze Xie* fortify the spleen and disinhibit urination based on the former and latter heavens supporting and bolstering each other and the prevention of damp evils when enriching yin. *Dan Pi* quickens and cools the blood, based on enduring diseases commonly being complicated by blood stasis and the prevention of upward flaring of ministerial fire. *Yin Chai Hu* and *Di Gu Pi* recede or abate vacuity heat and stop sweating.

Additions & subtractions: If there is simultaneous qi vacuity, add 15-30 grams of Radix Astragali Membranacei (*Huang Qi*) to boost the qi and secure the exterior.

If enduring disease has caused lung-kidney yin depletion, one can use *Mai Wei Di Huang Wan Jia Wei* (Ophiopogon & Schisandra Rehmannia Pills with Added Flavors): Concha Ostreae (*Mu Li*) and Os Draconis (*Long Gu*), 30g each, cooked Radix Rehmanniae (*Shu Di*), 15g, Tuber Ophiopogonis Japonici (*Mai Men Dong*), Radix Dioscoreae Oppositae (*Shan Yao*), and Fructus Corni Officinalis (*Shan Zhu Yu*), 12g each, Sclerotium Poriae Cocos (*Fu Ling*), Fructus Schisandrae Chinensis (*Wu Wei Zi*), Rhizoma Alismatis (*Ze Xie*), and Cortex Radicis Moutan (*Dan Pi*), 9g each.

Acupuncture & moxibustion: *Fei Shu* (BL 13), *Fu Liu* (Ki 7), *San Yin Jiao* (Sp 6)

Formula analysis: Supplementing *Fei Shu* supplements the lung-definitive qi to secure the exterior. Even supplementing-even draining *Fu Liu* enriches yin and downbears fire. Supplementing *San Yin Jiao* supplements the yin of the liver and kidneys.

Additions & subtractions: If vacuity heat is effulgent above, add draining *Da Zhui* (GV 14). If there is concomitant spleen-kidney yang vacuity, add supplementing *Zu San Li* (St 36) and *Shen Shu* (BL 23).

Diabetic blood vessel circulatory disorders

1. Liver-kidney depletion & detriment pattern

Main symptoms: Bilateral heel pain or pain in the center of the foot, lack of redness or swelling in the affected area, remission of pain during the day when active with worsening of the pain at night, low back and knee soreness and limpness, lassitude of the spirit, lack of strength in the limbs, a pale tongue, and a fine pulse (as long as liver blood vacuity is predominant and yin vacuity has not given rise to vacuity heat)

Treatment principles: Enrich and supplement the liver and kidneys

Rx: *Zuo Gui Wan Jia Jian* (Restore the Left [Kidney] Pills with Additions & Subtractions)

Ingredients: Radix Dioscoreae Oppositae (*Shan Yao*), 15g, cooked Radix Rehmanniae (*Shu Di*), Fructus Corni

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Treatment principles: Course the liver and resolve depression

Rx: *Chai Hu Shu Gan Tin Jia Jian* (Bupleurum Course the Liver Drink with Additions & Subtractions)

Ingredients: Radix Albus Paeoniae Lactiflorae (*Bai Shao*), 15g, Radix Bupleuri (*Chai Hu*), Pericarpium Citri Reticulatae (*Chen Pi*), Rhizoma Cyperi Rotundi (*Xiang Fu*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Radix Ligustici Wallichii (*Chuan Xiong*), Fructus Citri Sarcodactylis (*Fo Shou*), and Radix Asklandiae Lappae (*Ma Xiang*), 9g each, and mix-fried Radix Glycyrrhizae (*Gan Cao*), 6g

Formula analysis: *Chai Hu*, *Chen Pi*, *Xiang Fu*, *Ma Xiang*, *Fo Shou*, and *Zhi Shi* course the liver and rectify the *qi*. *Bai Shao* emollients and harmonizes the liver, while *Chuan Xiong* moves the *qi* within the blood. In addition, *Chuan Xiong* as a messenger medicinal guides the effects of the other medicinals to the region of the head and brain. The combination of *Bai Shao* and mix-fried *Gan Cao* is well known for relaxing tension at the same time as *Gan Cao* harmonizes all the other medicinals in this formula.

Additions & subtractions: If there is no thought for eating or drinking, one can add 3-4.5 grams of Fructus Amomi (*Sha Ren*) to open the stomach. If there is concomitant phlegm and heat, one can add nine grams each of Rhizoma Pinelliae Ternatae (*Ban Xia*), Radix Scutellariae Baicalensis (*Huang Qin*), and Radix Trichosanthis Kirilowii (*Tian Hua Fen*).

Acupuncture & moxibustion: *Tai Chong* (Liv 3), *He Gu* (LI 4), *Nei Guan* (Per 6)

Formula analysis: Draining *Tai Chong* and *He Gu* courses the liver and rectifies the *qi*. Draining *Nei Guan* harmonizes the liver and spleen, loosens the chest, and quiets the spirit.

Additions & subtractions: If liver depression has transformed heat, needle *Tai Chong* through to *Xing Jian* (Liv 2) and add draining *Yang Ling Quan* (GB 34). If there is concomitant stomach heat, add draining *Nei Ting* (St 44). If there is abdominal distention and lack of appetite, add draining *Zu San Li* (St 36) and *Zhong Wan* (CV 12). If there is concomitant spleen vacuity, add even supplementing-evens draining *Zu San Li* and supplementing *Pi Shu* (Bl 20) and *Wei Shu* (Bl 21). If there is concomitant phlegm, add draining *Feng Long* (St 40) and *Zhong Wan* (CV 12).

2. Phlegm & dampness obstructing the orifices pattern

Main symptoms: Essence spirit depression, a dull, stagnant, torpid affect, chest and rib-side distention and fullness, somnolence, impaired memory, phlegm drool flowing from the mouth, white, slimy tongue fur, and a deep, slippery pulse

Treatment principles: Sweep away phlegm and open the orifices

Rx: *Dan Tan Tang Jia Jian* (Abduct Phlegm Decoction with Additions & Subtractions)

Ingredients: Rhizoma Pinelliae Ternatae (*Ban Xia*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Pericarpium Citri Reticulatae (*Chen Pi*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Rhizoma Acori Graminei (*Shi Chang Pu*), and Radix Polygalae Tenuifoliae (*Yuan Zhi*), 9g each, and bile-treated Rhizoma Arisaematis (*Dan Nan Xing*) and Radix Glycyrrhizae (*Gan Cao*), 6g each

Formula analysis: *Ban Xia* and *Chen Pi* rectify the *qi* and transform phlegm. *Fu Ling* fortifies the spleen and seeps dampness. *Gan Cao* harmonizes the center and strengthens earth. *Zhi Shi*, *Dan Nan Xing*, and *Shi Chang Pu* move the *qi* and dispel phlegm. *Yuan Zhi* arouses the spirit and opens the orifices.

Additions & subtractions: If phlegm turbidity has brewed and accumulated, transforming heat, one can use *Huang Lian Wen Dan Tang Jia Wei* (Coptis Warm the Gallbladder Decoction with Added Flavors): Rhizoma Pinelliae Ternatae (*Ban Xia*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Pericarpium Citri Reticulatae (*Chen Pi*), Caulis Bambusae In Taenia (*Zhu Ru*), Fructus Immaturus Citri Aurantii (*Zhi Shi*), Rhizoma Acori Graminei (*Shi Chang Pu*), and Radix Polygalae Tenuifoliae (*Yuan Zhi*), 9g each, bile-treated Rhizoma Arisaematis (*Dan Nan Xing*) and Radix Glycyrrhizae (*Gan Cao*), 6g each, and Rhizoma Coptidis Chinensis (*Huang Lian*), 3g. If there is marked insomnia, agitation, and restlessness, add 12 grams each of Concha Margaritiferae (*Zhen Zhu Mu*) and Caulis Polygoni Multiflori (*Ye Jiao Teng*).

If there is concomitant heart-spleen vacuity, one can use *Shi Wei Wen Dan Tang Jia Wei* (Ten Flavors Warm the Gallbladder Decoction with Added Flavors): Rhizoma Pinelliae Ternatae (*Ban Xia*), cooked Radix Rehmanniae (*Shu Di*), Semen Ziziphi Spinosae (*Suan Zao Ren*), and

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

the comparison group, it was 12.8mmol/L. The shortest course of disease in the treatment group was half a year and the longest was six years, with an average duration of 4.2 years. In the comparison group, it was five months and five years respectively, with an average duration of four years. In addition, all these patients had varying degrees of polyphagia, polydipsia, polyuria, and emaciation accompanied by varying degrees of numbness of the extremities, formication, and aching and pain which was worse at night. Further, their tongues were dark red with white fur, and their pulses were bowstring and fine or fine and choppy.

All the patients in this study were advised on dietary restrictions and administered an oral hypoglycemic agent in addition to being administered the following Chinese medicinals: Radix Astragali Membranacei (Huang Qi) and Caulis Milletiae Seu Spatholobi (Ji Xue Teng), 30g each, uncooked; Radix Rehmanniae (Sheng Di), 20g; Radix Achyranthis Bidentatae (Niu Xi); Radix Ligustici Wallichii (Chuan Xiong), Radix Rubrus Paeoniae Lactiflorae (Chi Shao), Lumbricus (Di Long), and Fructus Corni Officinalis (Shan Zhu Yu), 15g each; Radix Angelicae Sinensis (Dang Gui), Semen Pruni Persicae (Tao Ren), and Radix Pseudolaris (Tian Qi), 10g each; and Ramulus Cinnamomi Cassiae (Gui Zhi), 6g. If aching and pain were severe, three grams of Aglaiotrodin Seu Bangpian (Bai Hua She) were added. One ji was decocted in water and administered per day, with two months continuous administration equaling one course of treatment. Besides the oral hypoglycemics, the comparison group was given 20mg of vitamins B_1 and B_6 three times per day plus 40mg of uridine triphosphate, with two months also equaling one course of treatment.

Marked effects were defined as basic disappearance or marked decrease in numbness, formication, and aching and pain. Some effect was defined as lessening of the above symptoms, while no effect meant that there was no lessening and maybe even worsening of the above symptoms. Based on these criteria, 14 patients (53.8%) in the treatment group got a marked effect, 10 (38.5%) got some effect, and only two (7.7%) got no effect. Thus the total amelioration rate in the treatment group was 92.3%. In the comparison group, no patients got a marked effect, one (10%) got some effect, and nine (90%) got no effect. In addition, in the treatment group, the average reduction in blood sugar was 3.8mmol/L, while in the comparison group it was 2.1mmol/L.

Jiang Zhi-cheng et al., "A Small Discussion of the Treatment of 42 Cases of Diabetic Peripheral Neuropathy with Integrated Chinese-Western Medicine," Hu Nan Zhong Yi Za Zhi (*Hunan Journal of Chinese Medicine*), #1, 2000, p. 8-9. Altogether, there were 84 patients in this study divided into two groups of 42 each. Among the 42 patients in the so-called treatment group, 21 were male and 21 were female. Their ages ranged from 38-82, with an average age of 59.8 years. The course of their disease ranged from 2-18 years, with an average duration of 5.54 years. In the comparison group, there were 20 males and 22 females ranging in age from 42-79, with an average age of 58.2 years. These patients' disease courses had lasted from six months to 12 years, with an average duration of 5.62 years. All the patients were diagnosed with type 2 diabetes according to WHO criteria, and all were diagnosed as suffering from peripheral neuropathy. Exclusion criteria consisted of serious heart, liver, or kidney function disorders, incidence of diabetic coma or serious infection within the previous month, other serious diabetic complications, such as retinopathy or malignant tumors, serious psychiatric disorders, or chronic alcoholism.

Members of both groups received 80mg of glyburide orally morning and evening plus 10mg of vitamin B_1 orally three times per day. Members of the treatment group additionally received self-composed Huang Qi Gui Zhi Wu Wu Tang Jia Wei (Astragalus & Cinnamon Twig Five Materials Decoction with Added Flavors): Radix Astragali Membranacei (Huang Qi), Radix Salviae Miltiorrhizae (Dan Shen), Radix Puerariae (Ge Gen), and Semen Coicis Lachryma-jobi (Yi Yi Ren), 30g each; Radix Albus Paeoniae Lactiflorae (Bai Shao) and Radix Dioscoreae Oppositae (Shan Yao), 15g each; Ramulus Cinnamomi Cassiae (Gui Zhi), Rhizoma Atractylodis (Cang Zhu), Lumbricus (Di Long), and Fructus Chaenomelis Lagenariae (Mu Gua), 10g each; and Radix Literalis Praeparatus Aconiti Carmichaeli (Fu Zi), 3g. One ji of these medicinals was decocted in water and administered orally per day. One month of administration of these medicines equaled one course of therapy, and all patients in this study received two courses.

Marked effect was defined as basic disappearance of the symptoms of neuropathy with an 80% or more decrease in other accompanying symptoms, and a fasting blood sugar level which was basically normal. Some effect meant that there was marked improvement in the symptoms of neuropathy, a 50% or more decrease in accompanying symptoms, and a decrease in fasting blood sugar of 3mmol/L or more. No effect meant that the patient's symptoms and fasting blood sugar did not meet the above criteria. Based on these criteria, 29 patients in the treatment group were judged to have experienced a marked effect, nine got

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

and Kegel exercises. On follow-up after one year, there were no reported abnormalities.

Case 6[17]

The patient was a 60 year old male cadre who was first examined on Oct. 2, 1998. According to the patient, he had been diagnosed with type 2 diabetes 10 years before. Because he persisted in not abiding by his dietary restrictions and was not regular in taking his hypoglycemic medicines, the man's blood sugar was not stable, sometimes reaching 21.9mmol/L. In the previous two years, this man's urination had become difficult, its amount scanty, and its times numerous. After urination, there was dribbling and dripping which would not stop. Accompanying symptoms included lassitude of the spirit, lack of strength, fear of cold, chilled extremities, a white, lusterless facial complexion, a pale tongue with thin, white fur, and a fine, forceless pulse. Prostate examination was normal as was kidney function. However, there was 120ml of residual urine in his bladder.

The patient's Chinese medical pattern was categorized as central qi downward falling with simultaneous yang vacuity. Therefore, he was treated with Bu Zhong Yi Qi Tang (Supplement the Center & Boost the Qi Decoction): Radix Astragali Membranacei (Huang Qi), 30g, Rhizoma Atractylodis Macrocephalae (Bai Zhu), 12g, Radix Angelicae Sinensis (Dang Gui) and Pericarpium Citri Reticulatae (Chen Pi), 10g each, Ramulus Cinnamomi Cassiae (Gui Zhi) and Radix Panacis Ginseng (Ren Shen), 9g each, and mix-fried Radix Glycyrrhizae (Gan Cao) and Radix Lateralis Praeparatus Aconiti Carmichaeli (Fu Zi), 6g each. After 20 days of taking these medicinals, all his symptoms disappeared and the residual urine was down to 10ml. From that time forward, this man took 10 days of these medicinals once every three months. On follow-up after one year, there had been no recurrence.

Case 7[18]

The patient was a 36 year old male shop assistant who was first examined on Jan. 13, 1987. The patient's main complaint was diarrhea for the previous two years which had become exacerbated in the last four days. The man had been suffering from polydipsia and polyuria since 1979. He was diagnosed as suffering from diabetes and blindness due to diabetic retinopathy in 1984. In 1985, he was diagnosed with diabetic nephropathy and gastrointestinal autonomic neuropathy. After being treated with insulin (50 units per day), his fasting serum glucose reduced by half and his urine glucose, which had been (+++) was negative or trace. However, the man complained of increasing frequency of bowel movements ranging from 3-10 per day and especially at night. The patient was prescribed 0.3-0.9g per day of berberine which reduced his bowel movements to 1-2 times per day. However, if he went off the berberine, his diarrhea recurred. Stool examination in 1986 was normal. At the time of examination, the man had been taking berberine constantly for two years. Nevertheless, in the past four days, the bowel movements had increased in spite of taking berberine. At this point in time, the man was having 10 watery stools per day to the point of fecal incontinence. Accompanying symptoms included aversion to cold, especially in the abdominal and lumbar areas, depression, and anxiety. There was thin, white tongue fur and a slippery pulse.

Based on the above signs and symptoms, this patient was diagnosed with wasting and thirsting and diarrhea with spleen-kidney dual vacuity. Therefore, treatment principles were to warm and invigorate the spleen and kidneys, nourish the liver and regulate the spleen qi. The formula consisted of: Radix Astragali Membranacei (Huang Qi) and calcined Concha Margaritiferae (Zhen Zhu Mu), 30g each, Radix Albae Paeoniae Lactiflorae (Bai Shao), 20g, Semen Cuscutae Chinensis (Tu Si Zi), 15g, Ramulus Cinnamomi Cassiae (Gui Zhi), Rhizoma Atractylodis Macrocephalae (Bai Zhu), Pericarpium Citri Reticulatae (Chen Pi), Fructus Psoraleae Corylifoliae (Bu Gu Zhi), and Fructus Schisandrae Chinensis (Wu Wei Zi), 10g each, dry Rhizoma Zingiberis (Gan Jiang) and Radix Ledebouriellae Divaricatae (Fang Feng), 8g each, and mix-fried Radix Glycyrrhizae (Gan Cao), 6g.

After taking 6 ji of the above formula, the patient's bowel movements were reduced to six per day. However, when he stopped taking the decoction, he had nocturnal diarrhea, up to eight times per night. Therefore, 30 grams each of Sclerotium Poriae Cocos (Fu Ling) and Semen Coicis Lachrymae-jobi (Yi Yi Ren) and 15 grams of Cornu Cervi (Lu Rong) were added to the original formula and his insulin was decreased to 46 units per day. After taking this prescription for three months, the patient had only 1-2 bowel movements per day with formed stools. His insulin was reduced to 44 units and he continued to take decoctions for one year until his bowel movements were completely normal, at which point he stopped taking these medicinals and his symptoms of diarrhea as well as coldness in his low back, abdomen, and extremities did not return.

Case 8[19]

The patient was a 63 year old female who had had type 2

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Foot Drink)," *Si Chuan Zhong Yi* (*Sichuan Chinese Medicine*), #12, 1999, p. 30. In this study there were 72 cases, 30 men and 42 women, all between 38-64 years old and all of whom had ulcers on their feet. The largest of these was 10cm x 8cm and the smallest was 2cm x 1cm. The course of these patients' disease was 3-8 months. All had a history of diabetes, lowered temperature in the skin of their feet, dark red colored skin, swelling and distention, aching and pain, or slowing and dulling of sensation. There was difficulty walking and a weakened pulse in the foot. In the worst cases, there was gangrene.

Treatment consisted of a self-composed formula made from: Radix Astragali Membranacei (*Huang Qi*), 60g, Caulis Lonicerae Japonicae (*Ren Dong Teng*), 50g, Herba Violae Yedoensitis Cum Radice (*Zi Hua Di Ding*), 30g, Radix Dioscoreae Oppositae (*Shan Yao*), 25g, Radix Scrophulariae Ningpoensis (*Xuan Shen*), 20g, Radix Achyranthis Bidentatae (*Niu Xi*), 15g, Radix Angelicae Sinensis (*Dang Gui*), 12g, Rhizoma Atractylodis (*Cang Zhu*), 10g, and Flos Carthami Tinctorii (*Hong Hua*), 3g. One *jì* of these medicinals was decocted in water per day and administered internally, with one half month equalling one course of treatment. If the affected area was relatively more red and swollen, 12 grams each of Fructus Chaenomelis Lagenariae (*Mu Gua*) and Radix Salviae Miltiorrhizae (*Dan Shen*) and nine grams of Squama Manitis Pentadactylis (*Chuan Shan Jia*) were added. If aching and pain were severe, nine grams each of processed Resina Olibani (*Ru Xiang*) and Resina Myrrhae (*Mo Yao*) were added. If qi vacuity was severe, the amount of *Huang Qi* was increased even more. Externally, the affected area was fumigated and washed once every other day with a warm decoction of Radix Glycyrrhizae (*Gan Cao*), 30g, and Folium Artemisiae Argyii (*Ai Ye*), 15g. Then a powder made from 10 grams each of Resina Olibani (*Ru Xiang*) and Resina Myrrhae (*Mo Yao*), six grams of Margarita (*Zhen Zhu*), and one gram each of Secretio Moschi Moschiferi (*She Xiang*) and Succinum (*Hu Po*) was applied to the sore.

Cure was defined as disappearance of the aching and pain and swelling and distention in the affected limb, a return of normal skin color and warmth, and closure of the wound. Improvement meant that the aching and pain basically disappeared, the mouth of the sore shrunk, although the patient could still not stand and walk for a long continuous time. No effect meant that, after one course of treatment, there was basically no improvement. The shortest course of treatment was one month, and the longest was four months. Based on the above criteria, 64 patients were judged cured, five improved, and only three got no effect. Thus the total amelioration rate was 95.8%.

Zhang Cheng-lu & Tan Jin-ling, "The Integrated Chinese-Western Medical Treatment of 16 Cases of Diabetic Foot," *Hu Nan Zhong Yi Za Zhi* (*Hunan Journal of Chinese Medicine*), #1, 2000, p. 28. Sixteen patients were treated in this study, all of whom met the WHO criteria for diabetes and all of whom had ulcers on their feet. There were 12 men and four women in this group who ranged from 46-78 years old. These patients had suffered from diabetes for 4.5-22.5 years, and had had diabetic foot from 8-256 days. The Wagner scale was used to rate these ulcers into stages I-IV. Three cases had stage I ulcers, four cases had stage II, six cases had stage III, and three cases had stage IV ulcers. Ten cases had accompanying retinopathy, six cases had accompanying peripheral neuropathy, six cases had hypertension, and four cases had diabetic nephropathy.

All 16 patients were treated with Western hypoglycemic agents to control their blood sugar, which was stabilized at 8.5mmol/L or less, all were treated with antibiotics, and all were treated locally, surgically, and with topical medications. Chinese medical treatment was predicated on the principles of supplementing the qi and enriching yin, freeing the flow of yang and quickening the blood, for which the following self-composed formula was administered: Radix Astragali Membranacei (*Huang Qi*), 30-60g, Caulis Millettiae Seu Spatholobi (*Ji Xue Teng*), 30g, Rhizoma Atractylodis (*Cang Zhu*), 25g, Radix Scrophulariae Ningpoensis (*Xuan Shen*), Radix Achyranthis Bidentatae (*Niu Xi*), and Radix Clematidis Chinensis (*Wei Ling Xian*), 15g each, Semen Pruni Persicae (*Tao Ren*), Radix Angelicae Sinensis (*Dang Gui*), Radix Albus Paeoniae Lactiflorae (*Bai Shao*), Hirudo Seu Whitmaniis (*Shui Zhi*), and Radix Et Rhizoma Polygoni Cuspidati (*Hu Zhang*), 12g each, Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*), 10g, and Ramulus Cinnamomi Cassiae (*Gui Zhi*), 6-12g. If qi vacuity was severe, the amount of *Huang Qi* was doubled. If blood stasis was heavy, 30 grams of Squama Manitis Pentadactylis (*Chuan Shan Jia*) and 20 grams of Fructus Liquidambaris Taiwaniae (*Lu Lu Tong*) were added. If there was hypertension, 30 grams of Spica Prunellae Vulgaris (*Xia Ku Cao*) and 15 grams of Ramulus Uncariae Cum Uncis (*Gou Teng*) were added. If there was coronary heart disease, 30 grams of Radix Salviae Miltiorrhizae (*Dan Shen*) and 12 grams of Fructus Trichosanthis Kirlowii (*Gua Lou*) were added. If there was nephropathy, 20 grams of Herba Leonuri Heterophylli (*Yi Mu Cao*) and 12 grams of Radix Dioscoreae Oppositae (*Shan Yao*) were added. If there was retinal bleeding, 12 grams of Cortex Radicis Moutan (*Dan*

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

chelate, 50mg per day, and copper chelate, 1mg per day.[14]

ENDNOTES:

[1] www.diabetes.org/DiabetesCare/1997-1/Upj1738.htm
[2] According to Hsu Zhuan-jin and Quan Xiu-lin, the incidence of gangrene in all diabetic patients in China is 0.8-1.2%, while for that in diabetic patients 60 years old and over, it is 2.8-38.9%. In addition, they report the male to female ratio of the occurrence of this condition to be 3:1. ("Advances in the Chinese Medical Treatment of Diabetic Foot," Bei Jing Zhong Yi [Beijing Chinese Medicine], #3, 2000, p. 34)
[3] http://health.sowonline.com/tabs/hop/000102.cfm
[4] www.upjohn.com/diseases/diseaseSections.htm
[5] http://health.sowonline.com/tabs/hop/000102.cfm
[6] Ibid.
[7] www.statemaflk.or.kr/all/referrals/springdale/amputationpatients.htm
[8] www.podiatrynetwork.com/diseases/amputation_disorders2.cfm?ID=104
[9] http://alpha.confirm.com/alpha/Data/Archive/gangrene/paper_11948.htm
[10] "Two Dings" refer to Zi Hua Di Ding and Pu Gong Ying which is sometimes called Huang Hua Di Ding, "Yellow Flower" Di Ding.
[11] Chen Jia-ding, The Treatment of Diabetes with Traditional Chinese Medicine, Shandong Science & Technology Press, Jinan, 1994, p. 184-185.
[12] There are at least three different formulas with this name in the Chinese medical literature. The one that makes the most sense to us as an essential work is Kou Cu Qin Yi Jian (The Mirror of Ancient & Modern Medicine): Radix Angelicae Sinensis (Dang Gui), uncooked; Radix Rehmanniae (Sheng Di), and Cortex Radicis Moutan (Dan Pi), 15g each; Rostus Morbae (Mo Yao), Resina Olibani (Ru Xiang), Radix Salviae Paconiae Lactiflorae (Chi Shao), Radix Angelicae Dahuricae (Bai Zhi), and Radix Ligustici Wallichii (Chuan Xiong), 9g each, and Radix Glycyrrhizae (Gan Cao), 4.5g.
[13] Chang Xin-lu et al., "The Treatment of 72 Cases of Diabetic Foot with Self-composed Tang Zu Yin (Diabetic Foot Drink)," Si Chuan Zhong Yi (Sichuan Chinese Medicine), #12, 1999, p. 30.
[14] Li Xin-jian, "The Treatment of Diabetic Gangrene with Huai Ju Xue Yi Fang (Gangrene Sweeping & Washing Formula)," Zhe Jiang Zhong Yi Za Zhi (Zhejiang Journal of Chinese Medicine), #3, 2000, p. 121.
[15] Wang Fan, "The Treatment of 28 Cases of Diabetic Foot with the Methods of Boosting the Qi & Quickening the Blood Combined with the Use of Aglucondate Antithrombotic Enzyme," Zhong Yi Za Zhi (Journal of Chinese Medicine), #3, 2001, p. 172.
[16] www.upjohn.com, op.cit.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

flowing dampness due to the spleen's inability to govern fluids, since the spleen, dampness, and the color yellow all correspond to the earth phase. When these damp evils hinder and obstruct the flow of yang qi in the local area, this yang qi may become depressed and transform into heat. If this heat becomes mutually bound with these damp evils, damp heat is engendered. If damp heat steams and brews, it may give rise to sores, ulcers, and putrefaction of the skin. If spleen vacuity fails to engender sufficient blood to nourish and moisten the skin, the skin will become dry and scaly. If blood fails to mother the qi, the qi will counterflow upward and outward, moving frenetically in the skin, manifesting as internally engendered wind and subjectively experienced as itching. If blood vacuity evolves into yin vacuity, dryness, scaling, and itching due to stirring of wind will be even worse. If, due to a combination of dampness, blood vacuity, and emotional stress, liver depression endures and becomes aggravated, it may transform into depressive heat. Since the liver stores the blood, depressive heat in the liver is easily transferred to the blood aspect. When depressive heat is transferred to the blood, it makes the blood move frenetically as well as damages and consumes it. All skin lesions which are red in color involve some sort of evil heat. If dampness, qi stagnation, and blood vacuity endure, eventually this must cause blood stasis in the network vessels. Such blood stasis can be yet another cause of malnourishment of the skin and hair. It may also cause increased pigmentation of brown or purple color, telangiectasis, and/or localized lack of warmth and sensitivity. Further, enduring dampness may congeal into phlegm nodules, especially when dampness is steamed by heat. When qi and yin disease finally reaches yang, yang vacuity failing to warm and move the channels and vessels adds yet another disease mechanism for blood stasis and untransformed fluids.

TREATMENT BASED ON PATTERN DISCRIMINATION:

DIABETIC DERMOPATHY

QI & BLOOD LOSS OF HARMONY PATTERN

MAIN SYMPTOMS: Lower ventrolateral brownish macules whose surfaces are bright and shiny, possible formication, scarring after slight injury, possible spontaneous remission

TREATMENT PRINCIPLES: Quicken the blood and free the flow of the network vessels, boost the qi and engender the flesh

RX: *Bu Yang Huan Wu Tang Jia Jian* (Supplement Yang & Restore Five [Tendril] Decoction with Additions & Subtractions)

INGREDIENTS: Radix Astragali Membranacei (*Huang Qi*), 30g, Caulis Millettiae Seu Spatholobi (*Ji Xue Teng*), 15g, and Radix Angelicae Sinensis (*Dang Gui*), Radix Ligustici Wallichii (*Chuan Xiong*), Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), Semen Pruni Persicae (*Tao Ren*), Flos Carthami Tinctorii (*Hong Hua*), Lumbricus (*Di Long*), and Ramulus Cinnamomi Cassiae (*Gui Zhi*), 9g each

FORMULA ANALYSIS: *Dang Gui*, *Chuan Xiong*, *Chi Shao*, *Tao Ren*, and *Hong Hua* quicken the blood and transform stasis. *Di Long*, *Ji Xue Teng*, and *Gui Zhi* free the flow of the network vessels. *Huang Qi* boosts the qi and engenders the flesh as well as promotes the movement of blood circulation.

EXTERNAL APPLICATION:[15] Soak 20 grams of Flos Carthami Tinctorii (*Hong Hua*) in 100ml of alcohol for half a month. Then strain out the dregs and reserve the medicinal liquid for use. Use this medicinal liquid to massage the affected area two times per day.

NECROBIOSES LIPOIDICA DIABETICORUM

QI & BLOOD STASIS & STAGNATION PATTERN

MAIN SYMPTOMS: Pretibial sclerotic macules and lumps which are either yellowish brown or dark red in color and may be accompanied by a dry mouth, polydipsia, numbness in the extremities, lack of strength, frequent, numerous urination, a dark red tongue with white fur, and a deep pulse

TREATMENT PRINCIPLES: Quicken the blood and transform stasis while simultaneously boosting the qi and yin

RX: *Gui Zhi Fu Ling Wan Jia Wei* (Cinnamon Twig & Poria Pills with Added Flavors)

INGREDIENTS: Radix Salviae Miltiorrhizae (*Dan Shen*), 30g, Caulis Millettiae Seu Spatholobi (*Ji Xue Teng*) and Radix Scrophulariae Ningpoensis (*Xuan Shen*), 15g each, and Ramulus Cinnamomi Cassiae (*Gui Zhi*), Sclerotium Poriae Cocos (*Fu Ling*), Radix Angelicae Sinensis (*Dang Gui*), Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), Cortex Radicis Moutan (*Dan Pi*), Semen Pruni Persicae (*Tao Ren*), Rhizoma Curcumae Zedoariae (*E Zhu*), and Rhizoma Polygonati (*Huang Jing*), 9g each

FORMULA ANALYSIS: *Gui Zhi* and *Ji Xue Teng* free the

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Xie) to eliminate dampness, track down wind, and stop itching.

ACUPUNCTURE & MOXIBUSTION: Ge Shu (Bl 17), Gan Shu (BL 18), Qu Chi (LI 11), San Yin Jiao (Sp 6), Xue Hai (Sp 10)

FORMULA ANALYSIS: Supplementing Ge Shu, Gan Shu, and San Yin Jiao nourishes the blood. Draining Qu Chi dispels wind, and draining Xue Hai clears heat from the blood.

ADDITIONS & SUBTRACTIONS: To clear liver heat, add draining *Xing Jian* (Liv 2) and *Yang Ling Quan* (GB 34). For itching in the lower limbs, add draining *Feng Shi* (GB 31). To settle, still, and quiet the spirit, add draining *Bai Hui* (GV 20) and *Yin Tang* (M-HN-3) and even supplementing even draining *Shen Men* (Ht 7).

EAR ACUPUNCTURE: Lung, Adrenal, Subcortex, *Shen Men*

2. DAMP HEAT POURING DOWNWARD PATTERN

MAIN SYMPTOMS: External genital and perianal dampness and itching, possible lower limb itching, possible nail marks from scratching, worse itching on exposure to heat or when hot, a red tongue with slimy, yellow fur, and a slippery pulse

TREATMENT PRINCIPLES: Clear heat, eliminate dampness, and stop itching

RX: *Long Dan Xie Gan Tang Jia Wei* (Gentiana Drain the Liver Decoction with Added Flavors)

INGREDIENTS: Fructus Kochiae Scopariae (*Di Fu Zi*), Cortex Radicis Dictamni Dasycarpi (*Bai Xian Pi*), and Semen Plantaginis (*Che Qian Zi*), 15g each, and Radix Gentianae Scabrae (*Long Dan Cao*), Radix Scutellariae Baicalensis (*Huang Qin*), Fructus Gardeniae Jasminoidis (*Zhi Zi*), uncooked Radix Rehmanniae (*Sheng Di*), Radix Angelicae Sinensis (*Dang Gui*), and Rhizoma Alismatis (*Ze Xie*), 9g each

FORMULA ANALYSIS: *Long Dan Cao, Huang Qi*, and *Zhi Zi* clear heat and dry dampness. *Sheng Di* and *Dang Gui* nourish the blood and protect yin. *Che Qian Zi* and *Ze Xie* blandly seep and disinhibit dampness. *Di Fu Zi* and *Bai Xian Pi* eliminate dampness and stop itching.

ADDITIONS & SUBTRACTIONS: If dampness has damaged the spleen and heat has consumed yin, add 12 grams each of Radix Glehniae Littoralis (*Sha Shen*) and Tuber Ophiopogonis Japonici (*Mai Men Dong*).

ACUPUNCTURE & MOXIBUSTION: San Yin Jiao (Sp 6), Yin Ling Quan (Sp 9), Xue Hai (Sp 10)

FORMULA ANALYSIS: Draining San Yin Jiao and Yin Ling Quan clears and eliminates dampness and heat. Draining Xue Hai clears heat from within the blood aspect.

ADDITIONS & SUBTRACTIONS: For genital itching, add draining Qu Gu (CV 2) and Lou Gu (Liv 5). For perianal itching, add draining Chang Qiang (GV 1) and Cheng Shan (Bl 57).

EXTERNAL APPLICATION (**for both the above patterns**): Apply *Zhi Yang Ding* (Stop Itching Tincture) to the affected area several times per day.[2]

BACTERIAL & FUNGAL INFECTIONS

HORDEOLEUM

PHLEGM & FIRE MUTUALLY BINDING PATTERN

MAIN SYMPTOMS: Localized pain, redness, and swelling of the eyelid accompanied by a dry mouth and parched throat, a red tongue, and taped pulse

TREATMENT PRINCIPLES: Transform phlegm, clear heat, and scatter nodulation

RX: *Qing Wei Tang Jia Wei* (Clear the Stomach Decoction with Added Flavors)

INGREDIENTS: Uncooked Gypsum Fibrosum (*Shi Gao*), 15g, uncooked Radix Rehmanniae (*Sheng Di*), Cortex Radicis Moutan (*Dan Pi*), Radix Scrophulariae Ningpoensis (*Xuan Shen*), Radix Scutellariae Baicalensis (*Huang Qin*), Rhizoma Pinelliae Ternatae (*Ban Xia*), and Bombyx Batryticatus (*Jiang Can*), 9g each, and Rhizoma Coptidis Chinensis (*Huang Lian*) and Rhizoma Cimicifugae (*Sheng Ma*), 6g each

FORMULA ANALYSIS: *Shi Gao, Huang Lian, Huang Qin*, and *Sheng Ma* clear effulgent heat from the stomach. *Sheng Di* and *Xuan Shen* clear heat and cool the blood as well as nourish and protect yin fluids. In addition, *Xuan Shen* softens the hard and scatters nodulation. *Dan Pi* cools and quickens the blood, while *Ban Xia* and *Jiang Can* transform phlegm and scatter nodulation.

ADDITIONS & SUBTRACTIONS: If there is marked thirst and polydipsia, add nine grams of Rhizoma Anemarrhenae Asphodeloidis (*Zhi Mu*). For heat in the large intestine, add 3–6 grams of Radix Et Rhizoma Rhei (*Da Huang*).

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

the liquid is reduced by half. Cool, strain, and apply externally 2-3 times per day.

ONCHYOMYCOSIS

SPLEEN-STOMACH HEAT DAMAGING THE BLOOD PATTERN

MAIN SYMPTOMS: Atrophic or hypertrophic, grayish, lusterless, possibly fragile finger or toenails which may become separated from the nail bed.

TREATMENT PRINCIPLES: Clear heat and eliminate dampness, nourish the blood and kill worms.

EXTERNAL APPLICATION: Tincture 30 grams of Herba Agastachis Seu Pogostemi (Huo Xiang) and 12 grams each of Rhizoma Polygonati Odorati (Yu Zhu), Radix Et Rhizoma Rhei (Da Huang), and Melanteritum (Qing Fan) in 500ml of white vinegar for seven days. Remove the dregs and reserve the medicinal liquid. Soak the affected nail(s) in this liquid for 30 minutes per day.

ABSTRACTS OF REPRESENTATIVE CHINESE RESEARCH:

Li Wen-hong, "The Integrated Chinese-Western Medical Treatment of Diabetic Bullosis," *Si Chuan Zhong Yi (Sichuan Journal of Chinese Medicine)*, #7, 1999, p. 44. The author treated 30 cases of diabetic bullosis with both internal and external formulas. In this study, there were 12 men and 18 women, their ages ranged from 51-64 years old, and their median blood sugar was 12.3 ± 0.4mmol/L. There were four cases of septicemia, three cases of renal insufficiency, two cases of retinopathy with blindness in both eyes, and six cases of chronic gastric ulcers. Before the blisters erupted, there was no sensation of pain nor any redness or swelling. The blisters ranged in size from 0.5-10cm and were round or elliptical in appearance. An external wash was prepared for the affected areas consisting of: Radix Sophorae Flavescentis (Ku Shen) and Mirabilitum (Mang Xiao), 30g each, and Herba Leonuri Seu Spiraeidae (Fu Ping), 15g. These medicinals were boiled in water and the resulting medicinal liquid was applied externally twice per day. If the blisters did not break, then the patient was advised to soak the infected area with hot water twice per day, for 30 minutes each time. The treatment principles for the internally administered decoction were to cool wind and clear heat, resolve toxins and dispel dampness. The prescription was Yin Qiao San Jia Jian (Lonicera & Forsythia Powder with Additions & Subtractions): Flos Lonicerae Japonicae (Jin Yin Hua), Fructus Forsythiae Suspensae (Lian Qiao), Fructus Arctii Lappae (Niu Bang Zi), Herba Menthae Haplocalycis (Bo He), Folium Bambusae (Zhu Ye), Radix Lithospermi Seu Arnebiae (Zi Cao), Radix Glycyrrhizae (Gan Cao), Radix Platycodi Grandiflori (Jie Geng), Talcum (Hua Shi), and Rhizoma Dioscoreae Hypoglaucae (Bie Xie). For more serious conditions, in order to clear heat and cool the blood, resolve toxins and seep dampness, Jia Wei Xiao Du Yin (Added Flavors Dispose Toxins Drink) plus Qing Wei Jie Du Tang (Clear the Stomach & Resolve Toxins Decoction) with additions and subtractions were prescribed: Fructus Forsythiae Suspensae (Lian Qiao), Fructus Arctii Lappae (Niu Bang Zi), Radix Rubrus Paeoniae Lactiflorae (Chi Shao), Radix Scutellariae Baicalensis (Huang Qin), Cortex Radicis Moutan (Dan Pi), Gypsum Fibrosum (Shi Gao, decocted first), Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), uncooked Radix Rehmanniae (Sheng Di), Radix Lithospermi Seu Arnebiae (Zi Cao), Sclerotium Polypori Umbellati (Zhu Ling), Sclerotium Poriae Cocos (Fu Ling), and Semen Coicis Lachryma-jobi (Yi Yi Ren). These medicinals were boiled in water and one ji was administered per day. Diet, lifestyle, and insulin were all continued as normal. After four weeks, 22 patients (73.33%) experienced the disappearance of the skin blisters with no new outbreaks of blisters occurring. Five patients (16.67%) showed some moderate improvement, and three patients showed no improvement. Therefore, the total amelioration rate was 90%.

Sun Xue-dong, "The Treatment of 82 Cases of Diabetes-induced Skin Itching with Self-composed Zhi Yang Tang (Stop Itching Decoction)," Bei Jing Zhong Yi (Beijing Chinese Medicine), #3, 2000, p. 12. All 82 patients in this study were diagnosed with diabetes according to WHO criteria and all had pruritus. Among these 82, 48 were male and 34 were female. Twenty-one cases were 40-50 years of age, 38 were 51-60, and 23 were 61 years old or older. Nineteen cases had had DM for 1-5 years, 28 had had DM 6-11 years, 22 cases had had DM 12-15 years, and 13 cases had had DM 15 years or more. Forty-two cases had had pruritus for 1-5 years, 29 had had pruritus for 6-10 years, five had had pruritus 11-15 years, and six cases had had pruritus for more than 15 years. Fasting blood glucose was 8-10mmol/L in 38 cases, was 11-12mmol/L in 19 cases, and was more than 12mmol/L in five cases.

Treatment consisted of the following internally administered Chinese medicinals to enrich yin, quicken the blood, and stop itching: Radix Pseudostellariae Heterophyllae (Tai Zi Shen), uncooked Radix Rehmanniae (Sheng Di), and Fructus Lycii Chinensis (Gou Qi Zi), 30g each, Radix

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

21

Diabetic Heart Disease

People with diabetes mellitus are 2-4 times more likely to get heart disease than nondiabetics.[1] 16% of deaths in diabetics are due to heart disease,[2] and four out of five patients with type 2 diabetes will die of cardiovascular disease. Diabetes is the most common cause of myocardial infarction (MI) in persons under 50 years of age in the United States.[3] Both insulin-dependent and non-insulin-dependent diabetes mellitus are associated with earlier and more extensive development of atherosclerosis as part of a widespread metabolic derangement including dyslipidemia and glycosylation of the connective tissue. Elevated levels of low density lipoprotein (LDL) and reduced levels of high density lipoprotein (HDL) predispose one to atherosclerosis, and diabetes accelerates the oxidative process. In addition, high levels of insulin in the blood damage the vascular endothelium resulting in vasoconstriction and hypertension. Further, in diabetes, there is an overall procoagulant state with impaired fibrinolysis which promotes the formation of ischemic clots around atherosclerotic plaque. Diabetes mellitus especially puts women at a higher risk of developing coronary artery disease (CAD) and significantly negates the otherwise protective effect of female hormones. Women with diabetes are 3-7 times more likely to develop heart disease than women without diabetes,[4] while men with diabetes are only three times as likely to develop heart disease than men without diabetes.[5]

Although diabetic heart disease may initially be asymptomatic, symptoms of diabetic heart disease may include heart dysrhythmias and chest pain. The discomfort of angina pectoris is highly variable. It is most commonly felt beneath the sternum as a cramp-like. However, it may initially manifest as or rapidly become a severe, intense precordial crushing sensation. Pain may radiate to the left shoulder and down the inside of the left arm possibly reaching the fingers. More rarely, this pain may also radiate straight through to the interscapular area. In addition, it sometimes radiates to the throat, jaws, teeth, and even occasionally down the right arm. These variegated manifestations of coronary ischemia are due to the so-called "T2-T12 syndrome" in which different somatic nerve segments intermingle with each other and with visceral nerves. Typical angina pectoris is characteristically triggered by physical activity or emotional intensity and usually lasts only a few minutes, subsiding with rest. It is even more easily triggered by exercise following a meal and is also triggered by exposure to cold causing vasospasm or constriction of a partially blocked vessel. In some patients, angina may occur at night when resting or asleep. Attacks may vary in frequency from several per day to occasional attacks separated by asymptomatic intervals of weeks, months, or even years. Since the symptoms of angina are usually constant for a given individual (due to the constant level of obstruction, provided it is due to stable plaque), any change or worsening in the pattern of these symptoms should be viewed as a poor prognosis.

The Western medical diagnosis of CAD is based on the patient's symptoms, if any, listening to the heart sounds with a stethoscope, an ischemic pattern on serial ECG, exercise tolerance testing, coronary arteriography, and radionuclide studies. Western medical treatment of CAD consists of diet and exercise plus prophylactic and remedial use of various modalities, such as sublingual nitroglycerin, beta-adrenergic blocking agents, calcium channel blockers, antiplatelet drugs, such as aspirin, coronary arterial bypass surgery, and angioplasty or, especially in those with diabetes, coronary grafting. Prognosis is determined by age, extent of coronary disease, severity of symptoms, left ventricular function, and the presence of arrhythmia. For instance, men with CAD with angina but no history

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

4. HEART QI YANG VACUITY WITH PHLEGM & STASIS MUTUALLY OBSTRUCTING

MAIN SYMPTOMS: Chest oppression, heart palpitations, precordial pain, fear of cold, chilled limbs, shortness of breath, lack of strength, possible blurred vision, possible numbness and pain of the extremities, possible lower limb edema, a fat, dark tongue with slimy, white fur, and a deep, slippery, possibly bound or regularly intermittent pulse.

TREATMENT PRINCIPLES: Supplement the qi and invigorate yang, transform phlegm and dispel stasis.

RX: *Sheng Mai San* (Engender the Pulse Powder) plus *Gua Lou Gong Bai Ban Xia Tang* (Trichosanthes, Allium & Pinellia Decoction) with additions and subtractions.

INGREDIENTS: Radix Salviae Miltiorrhizae (*Dan Shen*), 30g, Fructus Trichosanthis Kirilowii (*Gua Lou*), 20g, Tuber Ophiopogonis Japonici (*Mai Men Dong*), 12g, Fructus Schisandrae Chinensis (*Wu Wei Zi*), Bulbus Allii (*Cong Bai*), Rotundus Cinnamomi Cassiae (*Gui Zhi*), Pericarpium Citri Reticulatae (*Chen Pi*), Rhizoma Pinelliae Ternatae (*Ban Xia*), Radix Aconiti Sinensis (*Dang Gui*), Fructus Citri Sarcodactylis (*Fo Shou*), 9g each, Radix Panacis Ginseng (*Ren Shen*), 6g.

FORMULA ANALYSIS: *Ren Shen*, *Mai Men Dong*, and *Wu Wei Zi* boost the qi and nourish the heart. *Gui Zhi* and *Cong Bai* free the flow of yang and diffuse impediment. *Gua Lou* and *Ban Xia* transform phlegm. *Chen Pi*, *Fo Shou*, *Dang Gui*, and *Dan Shen* rectify the qi and quicken the blood.

ADDITIONS & SUBTRACTIONS: If there is concomitant heart-kidney yang vacuity, combine with *Shen Qi Wan* (Kidney Qi Pills) in order to warm and supplement heart-kidney yang. Practically speaking, this means to add 12 grams of cooked Radix Rehmanniae (*Shu Di*), nine grams each of Radix Dioscoreae Oppositae (*Shan Yao*), Fructus Corni Officinalis (*Shan Zhu Yu*), Sclerotium Poriae Cocos (*Fu Ling*), Cortex Radicis Moutan (*Dan Pi*), and Rhizoma Alismatis (*Ze Xie*), and 3-6 grams of Radix Aconiti Praeparatus Acorni Carmichaeli (*Fu Zi*). If phlegm turbidity tends to be exuberant, combine with *Di Tan Tang* (Flush Phlegm Decoction) in order to transform phlegm turbidity. Practically speaking, this means to add 12 grams of Caulis Bambusae In Taenia (*Zhu Ru*), nine grams of Rhizoma Acori Graminei (*Shi Chang Pu*), six grams each of Fructus Immaturus Citri Aurantii (*Zhi Shi*) and bile-treated Rhizoma Arisaematis (*Dan Nan Xing*), and three grams of Radix Glycyrrhizae (*Gan Cao*). Also substitute Pericarpium Citri Erythrocarpae (*Ju Hong*) for *Chen Pi*. If blood stasis is marked, add nine grams each of Flos Carthami Tinctorii (*Hong Hua*), Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), and Radix Ligustici Wallichii (*Chuan Xiong*). If there is simultaneous faint swelling in both lower limbs, one can add nine grams each of Herba Leonuri Heterophylli (*Yi Mu Cao*), Herba Lycopi Lucidi (*Ze Lan*), and Sclerotium Polypori Umbellati (*Zhu Ling*) in order to quicken the blood, disinhibit water, and disperse swelling.

If phlegm turbidity transforms heat, *Huang Lian Wen Dan Tang* (Jia Wei (Coptis Worm the Gallbladder Decoction with Added Flavors) to clear heat and transform phlegm: Caulis Bambusae In Taenia (*Zhu Ru*) and Sclerotium Poriae Cocos (*Fu Ling*), 12g each, Rhizoma Pinelliae Ternatae (*Ban Xia*), Pericarpium Citri Reticulatae (*Chen Pi*), Rhizoma Acori Graminei (*Shi Chang Pu*), Tuber Curcumae (*Yu Jin*), 9g each, Fructus Immaturus Citri Aurantii (*Zhi Shi*), Rhizoma Coptidis Chinensis (*Huang Lian*), 3-6g each, Radix Glycyrrhizae (*Gan Cao*), 3g, and Fructus Zizyphi Jujubae (*Da Zao*), 3-5 pieces.

If cold has congealed the heart vessels, one can use *Dang Gui Si Ni Tang* (Dong Gui Four Counterflows Decoction) in order to dispel cold, quicken the blood, and free the flow of the vessels: Radix Albus Paeoniae Lactiflorae (*Bai Shao*), 15g, Radix Angelicae Sinensis (*Dang Gui*) and Ramulus Cinnamomi Cassiae (*Gui Zhi*), 12g each, Caulis Akebiae (*Mu Tong*), 9g, stir-fried Radix Glycyrrhizae (*Gan Cao*), 6g, Herba Asari Cum Radice (*Xi Xin*), 3-6g, and Fructus Zizyphi Jujubae (*Da Zao*), 3-5 pieces.

If there is phlegm and stasis mutually obstructing but no symptoms of cold, use *Guan Xin Su He Tang* (Coronary-freeing Decoction): Fructus Trichosanthis Kirilowii (*Gua Lou*) and Tuber Curcumae (*Yu Jin*), 15g each, Rhizoma Cyperi Rotundi (*Xiang Fu*), 9-15g, Radix Salviae Miltiorrhizae (*Dan Shen*), stir-fried Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), and Rhizoma Corydalis Yanhusuo (*Yan Hu Suo*), 9g each, Semen Pruni Persicae (*Tao Ren*), 4.5-9g, Radix Polygalae Tenuifoliae (*Yuan Zhi*), 6g, stir-fried Radix Glycyrrhizae (*Gan Cao*) and Lignum Dalbergiae Odoriferae (*Jiang Xiang*), 3g each. If there is concomitant qi vacuity, add 15 grams of Radix Astragali Membranacei (*Huang Qi*) and 12 grams of Radix Codonopsitis Pilosulae (*Dang Shen*). If there is qi and yin dual vacuity, add 12 grams of Tuber Ophiopogonis Japonici (*Mai Men Dong*) and nine grams each of Radix Pseudostellariae Heterophyllae (*Tai Zi Shen*) and Fructus Schisandrae Chinensis (*Wu Wei Zi*). If chest oppression is severe, add nine grams each of

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

[illegible]

[illegible] p. 18

[illegible] 1990, p. 18

[illegible]

[illegible] 2000

[10] [illegible]

[11] [illegible] NY, 1994, p. 529

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

treatment, then no further needling was performed. Of the 75 cases in the control group, 38 were considered severe. After acupuncture treatment, nine of these cases were completely cured, seven cases improved and were classified as only slightly impaired, and 15 cases improved and were classified as moderately impaired. Seven cases showed no change. Of the 24 cases considered moderately impaired, eight were restored to normal, and 16 were considered improved. All 13 cases of the slight impairment group were completely cured. According to the author, needling Yu Mei causes no pain since there are no large arteries or nerves in the tongue. Local ecchymosis of submucosal vessels did not alter the function or the results of the treatment.

Representative case histories:

Case 1[11]

The patient was a 67 year old male who had had diabetes for six years. The diabetes was complicated by hypertension and high cholesterol, and the patient had been ineffective in controlling his blood sugar. At the time of his visit to the author's clinic, he complained of dizziness and headache, shaking limbs, constipation, and slurred speech for the last two days. Muscle strength in the right lower limb was at stage III and in the left lower limb at stage IV. His post prandial blood sugar level was 13.8mmol/L. CT scan of the man's brain showed many lacunae resulting from cerebral infarction. The patient had little color in his face, his tongue was dull with static maculles, and his pulse was choppy and fine.

Based on the above signs and symptoms, the patient's Chinese medical pattern discrimination was qi vacuity and blood stasis, and the treatment principles were to boost the qi and quicken the blood, transform stasis and free the flow of the network vessels. The formula he was administered included: Radix Astragali Membranacei (Huang Qi), 30g, Radix Salviae Miltiorrhizae (Dan Shen), Radix Ligustici Wallichii (Chuan Xiong), and Radix Rubrus Paeoniae Lactiflorae (Chi Shao), 15g each, Radix Angelicae Sinensis (Dang Gui), 12g, and Flos Carthami Tinctorii (Hong Hua) and Lumbricus (Di Long), 10g each. One ji was administered orally per day for one month. After that, the patient's muscle tone was restored to normal, his speech was clear, and his life activities were restored to normal.

Case 2[12]

The patient was a 70 year old female retired worker who was first examined as an out-patient on Jun. 19, 1998. The patient had had right-sided hemiplegia as the sequela of a stroke for one year. At the time she was hospitalized for the stroke, it was found that her blood and urine glucose were both high, and she was diagnosed with type 2 diabetes. At that time, she was prescribed oral hypoglycemic medications for one month, her symptoms improved, and she was discharged from the hospital. Over the last year, this patient's blood glucose had fluctuated between 7.21-7.99mmol/L (130-144mg/dL). She took 2.5mg of glybaride BID as well as 25mg of Jiang Tang Ling (Lower Sugar Efficacious [Remedy]) BID. However, recovery of the right-sided paralysis had been slow, and the patient was not able to take care of herself. Therefore, she had sought consultation with Dr. Zhu.

When Dr. Zhu examined this woman, he found that both her right hand and foot were swollen and distended, numb, lacked strength, and could not move themselves. There was a dry mouth with a bitter taste, unclear speech, chest oppression, heart flutter, poor appetite, and fluctuating dry or loose stools. Both feet were cool and not warm and there was habitual cramping of the sinews. The woman's tongue was red with thick, slimy, white fur, while her pulse was bowstring and slippery.

Based on the above signs and symptoms, Dr. Zhu's pattern discrimination was qi and yin dual vacuity with blood stasis and non-freely flowing network vessels. Therefore, the treatment principles were to boost the qi and nourish yin, quicken the blood and free the flow of the network vessels using the following medicinals: uncooked Radix Astragali Membranacei (Huang Qi), Caulis Milletiae Seu Spatholobi (Ji Xue Teng), Radix Salviae Miltiorrhizae (Dan Shen), and Radix Scrophulariae Ningpoensis (Xuan Shen), 30g each, Ramulus Loranthi Seu Visci (Sang Ji Sheng) and Herba Siegesbeckiae (Xi Xian Cao), 20g each, Rhizoma Atractylodis (Cang Zhu) and Radix Rubrus Paeoniae Lactiflorae (Chi Shao), 15g each, cooked Radix Rehmanniae (Shu Di), uncooked Radix Rehmanniae (Sheng Di), Radix Angelicae Sinensis (Dang Gui), Radix Ligustici Wallichii (Chuan Xiong), Semen Pruni Persicae (Tao Ren), Flos Carthami Tinctorii (Hong Hua), Lumbricus (Di Long), and Ramulus Cinnamomi Cassiae (Gui Zhi), 10g each, and Rhizoma Coptidis Chinensis (Huang Lian), 5g.

After one month of taking one ji of the above medicinals per day, the swelling and distention in the right hand and foot had disappeared and the numbness had decreased. The right lower limb had more strength. However, the extremities still were not warm and there was still heart

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

actual loss of body mass and protein, poor appetite, nausea and vomiting, general malaise, fatigue, headache, frequent hiccups, and generalized pruritus. Other symptoms which may be associated with this disease are excessive urination, excessive thirst, abnormalities of the nails (i.e., pitting), and hypertension.

Diabetes has become the single most common cause of end stage renal disease in the U.S. and Europe. This is thought to be due to three factors: 1) diabetes, particularly type 2 diabetes, is increasing in prevalence 2) diabetes patients now live longer, and 3) patients with diabetic ESRD are now being accepted for treatment in ESRD programs who had formerly been excluded. In the U.S., diabetes accounts for 30% of all new cases of ESRD on dialysis.[3] In 1991 in the U.S., the cost for treatment of diabetic patients with ESRD was in excess of $2 billion per year.[4] In 1995, 27,851 people with diabetes developed ESRD. About 20-30% of patients with type 1 or type 2 diabetes develop evidence of nephropathy. In addition, there is considerable racial/ethnic variability in the incidence of ESRD, with Latinos (especially Mexican Americans), Native Americans (especially Pima Indians), and African Americans having much higher risks of developing ESRD than non-Latino whites with type 2 diabetes. Among African Americans, part of this higher risk may be attributable to a greater propensity to develop keloids.

The Western medical prevention of this condition consists of controlling hypertension, hyperlipidemia, and blood glucose levels. Diet should be modified in terms of calories, protein, and fat to help control blood sugar levels and patients should be encouraged to stop smoking. A low protein diet (0.6g/kg of body weight) has the theoretical advantages of decreasing glomerular hypertension, reducing proteinuria, and slowing decline in renal function, while smoking worsens hypertension and albuminuria by increasing catecholamine levels in diabetics. In addition, radiocontrast materials or potentially nephrotoxic drugs should be avoided as should overuse of diuretics. If a urinary tract infection develops (and they are common in diabetics), it is typically treated as soon as possible with antibiotics since such infections may damage kidney function. Other preventive measures consist of avoiding dehydration, hypoxia, and the use of antifungal agents and nonsteroidal anti-inflammatory drugs (NSAIDs).

In terms of the Western medical remedial treatment, this consists of oral hypoglycemic agents and/or insulin injections, aggressive treatment of dyslipidemia, and aggressive treatment of hypertension with antihypertensive medications, particularly ACE inhibitors. ACE inhibitors not only reduce systemic hypertension, they also decrease intraglomerular hypertension. For instance, in patients with diabetic nephropathy, Western physicians attempt to lower blood pressure to below 135/85mmHg and to even lower the systolic level to 100-110mmHg.[5] Some physicians include the use of nondihydropyridine calcium channel blockers to decrease the production of lymphokines. At the microalbuminuria stage, tight glycemic control and protein restriction are still effective. Once macroalbuminuria develops, the course of diabetic nephropathy cannot be reversed. Therefore, it is extremely important to stop this condition's progression before macroalbuminuria develops.

In the early stage of renal failure, dialysis may be used. Unfortunately, dialysis has several disadvantages. It may cause vitreous and other hemorrhages, may result in digital ischemia and gangrene, worsens neuropathy, and accelerates atherosclerosis. Kidney transplant may also be used in the treatment of diabetic nephropathy, with such transplants ideally being performed while the serum creatinine level is still less than 5mg/dL. Renal transplantation is the treatment of choice in younger patients. However, renal transplantation is not an option for almost all patients with type 2 diabetes, and complications with dialysis and transplantation are more common with diabetic nephropathy, with death occurring from such complications twice as often in diabetics than in nondiabetics who require these treatments.[6] In 1995, 98,872 people with diabetes underwent dialysis or kidney transplantation.[6] Experimental treatments include insulin infusion pumps, the use of oral or injected heparin, oral therapy with glycosaminoglycans derived from pig intestines, and dansparoid sodium (Organon).

CHINESE DISEASE MECHANISMS:

Gao Yan-bin, in *Zhong Guo Tang Niao Bing Fang Zhi Te Se* (*The Characteristics of the Chinese National Prevention & Treatment of Diabetes*), divides the disease mechanisms of this condition into early and late stages. In the early or initial stage, Gao says that kidney yin vacuity is the root, while lung-stomach dryness and heat are the branches. The kidneys govern water and command opening and sealing. If diabetes has endured for years, then kidney yin must be depleted and have suffered detriment. In that case, yin detriment consumes the qi, and this results in kidney qi vacuity and detriment. Securing and gathering lose their duty and opening and sealing lose their command. Hence one sees frequent, profuse urination and the urine is turbid and sweet. Because the liver and kidneys

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

men and 12 women, 42-76 years of age who had had diabetes for 4-20 years. Eight cases had stage I DN, 12 had stage II DN, and one case had stage III DN. Stage I meant less than 1.0g of proteinuria per day. Stage II meant more than 1.0g of proteinuria per day, slightly low kidney function, and less than 200umol/L of blood creatine. Stage III meant a marked lowering of kidney function and more than 200umol/L of blood creatinine. Seven patients also had hypertension, two had cerebral sclerosis, 13 had peripheral neuropathy, and six had retinopathy. Treatment consisted of administering the following Chinese medicinals on top of their original hypoglycemic treatments and 20ml of *Fu Fang Dan Shen Zhu She Ye* [Compound Salvia Injectible Fluid] administered as an IV drip per day: Radix Astragali Membranacei (Huang Qi), 30g, Radix Angelicae Sinensis (Dang Gui), 20g, cooked Radix Rehmanniae (Shu Di), 18g, Fructus Corni Officinalis (Shan Zhu Yu), Radix Dioscoreae Oppositae (Shan Yao), and Radix Salviae Miltiorrhizae (Dan Shen), 12g each, Radix Pseudoginseng (San Qi), Radix Rubrus Paeoniae Lactiflorae (Chi Shao), Cortex Radicis Moutan (Dan Pi), Radix Et Rhizoma Rhei (Da Huang), and Rhizoma Alismatis (Ze Xie), 10g each. One ji of these medicinals was decocted in water and administered per day. Treatment continued for four months.

Marked effect was defined as basic disappearance of symptoms, 24 hour proteinuria less than 0.5g or a reduction in proteinuria more than 40%, FBG less than 7.2mmol/L, and lowering of blood creatinine by 1/4. Some effect meant marked improvement in clinical symptoms, reduction in proteinuria 10-39%, FBG reduced by 1/3 or more, and some improvement in blood creatinine. No effect meant that there was no improvement or even possible worsening of symptoms and failure to meet the other criteria described above. Based on these criteria, six cases were judged to have gotten a marked effect, 12 got some effect, and three got no effect, for a total amelioration rate of 85.71%. Mean blood glucose went from 11.70 ± 3.30mmol/L to 8.44 ± 2.24mmol/L, mean proteinuria went from 1.14 ± 1.42g/24hrs to 0.81 ± 1.46g/24hrs, mean blood creatinine went from 124.55 ± 44.10umol/L to 112.49 ± 32.14umol/L, mean total cholesterol went from 7.26 ± 1.98mmol/L to 6.12 ± 0.87mmol/L, and mean triglycerides went from 2.67 ± 0.91mmol/L to 1.95 ± 0.83mmol/L. The P value of all these changes was < 0.05.

Hao Ming-qiang, "The Treatment of 40 Cases of Diabetic Nephropathy with *Jiang Tang Li Shen Fang* (Lower Sugar & Rectify the Kidneys Formula)," *Si Chuan Zhong Yi (Sichuan Chinese Medicine)*, #10, 2000, p. 21: Seventy-eight patients with DN were divided into two groups, a so-called treatment group and a comparison group. There was no significant statistical difference between these two groups in terms of age, sex, disease duration, etc. The treatment group received self-composed *Jiang Tang Li Shen Fang* which was comprised of: uncooked Radix Astragali Membranacei (Huang Qi), 30g, Fructus Corni Officinalis (Shan Zhu Yu), Radix Dioscoreae Oppositae (Shan Yao), and Herba Agrimoniae Pilosae (Xian He Cao), 15g each, and cooked Radix Rehmanniae (Shu Di), Galla Rhois (Wu Bei Zi), Sclerotium Poriae Cocos (Fu Ling), processed Radix Polygoni Multiflori (He Shou Wu), Radix Et Rhizoma Rhei (Da Huang), added later, Herba Epimedii (Xian Ling Pi), and Radix Salviae Miltiorrhizae (Dan Shen), 10g each. If there was concomitant coronary artery disease, 10 grams of Radix Ligustici Wallichii (Chuan Xiong) and five grams of Lignum Dalbergiae Odoriferae (Jiang Xiang) were added. If there was concomitant eye disease, 10 grams each of Fructus Lycii Chinensis (Gou Qi Zi) and Flos Chrysanthemi Morifolii (Ju Hua) were added. If there was concomitant hyperlipidemia, 10 grams each of Radix Puerariae (Ge Gen), stir-fried Rhizoma Atractylodis (Cang Zhu), and uncooked Fructus Crataegi (Shan Zha) were added. If there was hypertension, 10 grams each of Rhizoma Gastrodiae Elatae (Tian Ma), Radix Cyathulae (Chuan Niu Xi), and Ramulus Uncariae Cum Uncis (Gou Teng) were added. One ji of these medicinals was decocted in water and administered per day. The comparison group received 30mg of an oral hypoglycemic agent three times per day as well as 12.5mg of *Qie Jiang Tiao Pe Ji* orally three times per day.

Cure was defined as complete disappearance of proteinuria, urination one time per night, FBG 5.4-6.5mmol/L, and the disease stable for half a year. Marked effect meant that proteinuria was (+), nocturia was two times per night, and FBG was equal to or less than 7.3mmol/L. No effect meant that urinary frequency was not decreased or improved only during the time of treatment and that FBG was equal to or more than 8.5mmol/L. Based on these criteria, 20 of the 40 patients in the treatment group were judged cured, 17 got a marked effect, and three got no effect. Thus the total amelioration rate in the treatment group was 92.5%. In the comparison group, seven patients were judged cured, 13 got a marked effect, and 18 got no effect, for a total amelioration rate of 52.7%.

Gao Ming-song & Xu Jie, "The Treatment of 68 Cases of Type II Diabetic Microalbuminuria with Integrated Chinese-Western Medicine," *He Nan Zhong Yi (Henan Chinese Medicine)*, #3, 2001, p. 39: All 68 patients in this study had early stage diabetic nephropathy and excreted 30-300mg of albumin in their urine every 24 hours.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

multi-pattern discrimination of this disease.[1] According to this article, there are five patterns: 1) qi, blood, and yin vacuity (also referred to as liver-kidney qi, blood, and yin vacuity) with turbid toxins internally collecting, 2) qi, blood, and yang vacuity (i.e., lung-kidney qi, blood, and yang vacuity) with turbid toxins internally collecting, 3) liver-spleen-kidney qi, blood, yin, and yang vacuity with turbid toxins internally collecting, 4) lung-kidney qi and blood, yin and yang vacuity with turbid toxins internally collecting, and 5) heart-kidney qi and blood, yin and yang vacuity with turbid toxins internally collecting. If one includes the various modifications of the protocols given above, all five of these patterns are accounted for in our three pattern presentation of DN.

2. Jiao Peng is of the opinion that early stage diabetic nephropathy mostly presents as qi and yin vacuity with blood stasis, in which case, blood stasis arises based on the Chinese medical dictum, "[Since] the essence [is] desiccated and blood [is] dry, the vessels and network vessels are static and obstructed." This tallies with our own experience. Although none of the patterns presented above, either our three or the Chinese Medical Association Commission on Nephropathy's five contain the words blood stasis, it is important to note that most Chinese clinicians assume there is an element of blood stasis in all patients with this condition.

3. For uremia, Yan De-xin commonly uses 30 grams each of Folium Eupatorii Chinensis (Lu Yue Xue) and uncooked Radix Et Rhizoma Rhei (Da Huang). These are decocted in water down to 150ml of liquid and used as a retention enema, one time per day, in order to discharge turbidity through the intestinal tract. According to De Yan, this treatment helps reduce retention of urea nitrogen and creatinine. However, this is a strongly attacking treatment liable to produce strong diarrhea. Therefore, it should be used with care or modified for use in those who are vacuous and weak.

Another enema formula for uremia consists of 30 grams of calcined Concha Ostreae (Mu Li), 20 grams of Fructus Forsythiae Suspensae (Lian Qiao), and 15 grams of Radix Et Rhizoma Rhei (Da Huang). Do once every other day for 14 days with a week's rest between courses.

Yet another Chinese medicinal enema is *Jun Kun Tang* (Army & Feminine Decoction). Here "army" refers to *Da Huang* which is also called *Jun* and "feminine" refers to Yi Mu Cao which is also called Kun Cao. Ingredients: Radix Et Rhizoma Rhei (Da Huang), 40g, Herba Leonuri Heterophylli (Yi Mu Cao), 30g, Concha Ostreae (Mu Li), 30g, and Radix Lasiosiphonis Praeparatus Aconiti Carmichaeli (Fu Zi), 15g. Put the medicinals in 500ml of water and decoct until reduced to 200ml. Retain the resulting warm (but not hot) liquid for 20-30 minutes each time. Do one enema per day for 20 days. Then stop for five days before resuming another 20 day's course. If there is concomitant yang vacuity, add three grams of Cortex Cinnamomi Cassiae (Rou Gui). If there is yin vacuity, subtract Fu Zi. If there is high blood pressure, subtract Fu Zi and add 12 grams each of Radix Rubrus Paeoniae Lactiflorae (Chi Shao) and Flos Immaturus Sophorae Japonicae (Huai Hua Mi). For bloody stools, add 15 grams of Radix Sanguisorbae Officinalis (Di Yu). If there are white blood cells in the urine, add 30 grams each of Herba Taraxaci Mongolici Cum Radice (Pu Gong Ying) and Cortex Phellodendri (Huang Bai).

4. According to recent research, Radix Et Rhizoma Rhei (Da Huang), Cordyceps Sinensis (Dong Chong Xia Cao), Radix Polygoni Multiflori (Shi Hao Wu), Radix Astragali Membranacei (Huang Qi), and Radix Salviae Miltiorrhizae (Dan Shen) are particularly good medicinals for treating chronic renal failure. Huang Qi and Dan Shen imply the common occurrence of qi vacuity and blood stasis respectively as main disease mechanisms of this disease. The fact that qi vacuity and blood stasis are main disease mechanisms of diabetic nephropathy is corroborated by the opinion of Wang Yan-bin.

5. One should avoid prescribing any medicinals for internal use that are nephrotoxic to patients with or who are at risk for diabetic nephropathy. Although there is ongoing debate about this subject, at the time of this writing, the authors suggest that this prohibition should include all members of the Aristolochia family, including Caulis Aristolochiae Manshuriensis which is often sold as Caulis Akebiae (Mu Tong), Radix Aristolochiae Fangchi (Guang Fang Ji), and Herba Asari Cum Radice (Xi Xin).

Endnotes:

[1] www.healthcentral.com/mhc/top/030998.cfm
[2] www.sdyy.org.cn/pdf/97111.pdf
[3] Wang Yan-bin, "The Treatment of 34 Cases of Diabetic Nephropathy by the Methods of Boosting the Qi & Transforming Stasis," *Si Chuan Zhong Yi* [Sichuan Chinese Medicine], v6, 2001, p. 28
[4] www.peoplesdaily.com/issues/1999/02_99/bei0.htm
[5] www.cdc.gov/diabetes/pubs/docs99.htm
[6] http://journal.diabetes.org/FullText/Supplements/DiabetesCare/Suppl_1/S43.htm
[7] www.peoplesdaily.com, op. cit.
[8] www.healthcentral.com, op. cit.
[9] www.cdc.gov, op. cit.
[10] Zhu Chen-yu, in anthologized in Dan Shu-ren & Chen Ji-han's, *Xian Dai Ian* (The Waiting & Thirsting Book), Chinese National Chinese Medicine & Medicinals Publishing Co., Beijing, 1999, p. 153-155

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

RX: *Bu Fei Tang Jia Jian* (Supplement the Lungs Decoction with Additions & Subtractions)

INGREDIENTS: Radix Pseudostellariae Heterophyllae (*Tai Zi Shen*), 30g; stir-fried Radix Astragali Membranacei (*Huang Qi*), Tuber Ophiopogonis Japonici (*Mai Men Dong*), and Cortex Radicis Mori Albi (*Sang Bai Pi*), 15g each; Radix Asteris Tatarici (*Zi Wan*), Semen Oroxyli Indici (*Mu Hu Die*), Cortex Radicis Lycii Chinensis (*Di Gu Pi*), Radix Glehniae Littoralis (*Sha Shen*), and cooked Radix Rehmanniae (*Shu Di*), 12g each; Fructus Schisandrae Chinensis (*Wu Wei Zi*), Bulbus Fritillariae Cirrhosae (*Chuan Bei Mu*), and Gelatinum Cornu Asini (*E Jiao*), 9g each; and Radix Glycyrrhizae (*Gan Cao*), 6g.

FORMULA ANALYSIS: *Tai Zi Shen*, *Huang Qi*, and *Gan Cao* boost the qi. *Mai Men Dong*, *Sha Shen*, *Wu Wei Zi*, *E Jiao*, and *Shu Di* enrich yin and engender fluids. *Sang Bai Pi*, *Zi Wan*, *Mu Hu Die*, *Di Gu Pi*, and *Chuan Bei Mu* clear heat and transform phlegm, stop coughing and level panting.

ADDITIONS & SUBTRACTIONS: If there is lacking of blood, add nine grams each of Herba Agastaches Pallosae (*Huo Xiang*) and Folium Callicarpae (*Zhi Zhu Ye*) and three grams of powdered Radix Pseudoginseng (*San Qi*) taken with the liquid decoction. If there is bone-steaming and night sweats, add 15 grams each of Cortex Ailanthi Simonii (*Chu Pi*) and Concha Ostreae (*Mu Li*) and nine grams of Radix Stellariae Dichotomae (*Yin Chai Hu*). If there is abdominal distention and loose stools, add 20 grams of Semen Coicis Lachryma-jobi (*Yi Yi Ren*) and 12 grams each of Semen Dolichoris Lablab (*Bai Bian Dou*) and Semen Nelumbinis Nuciferae (*Lian Zi*).

ACUPUNCTURE & MOXIBUSTION: *Zu San Li* (ST 36), *Tai Xi* (KI 3), *San Yin Jiao* (Sp 6), *Tai Yuan* (Lu 9), *Fei Shu* (Bl 13), *Pi Shu* (BL 20), *Shen Shu* (BL 23)

FORMULA ANALYSIS: Supplementing *Zu San Li*, *San Yin Jiao*, and *Pi Shu* fortifies the spleen and boosts the qi. Supplementing *Tai Xi*, *San Yin Jiao*, and *Shen Shu* supplements the kidneys and enriches yin. Supplementing *Tai Yuan* and *Fei Shu* moistens the lungs, stabilizes panting, and stops coughing.

ADDITIONS & SUBTRACTIONS: For night sweats, add even supplementing-even draining *Yin Xi* (Ht 6). For abdominal distention and loose stools, add supplementing *Zhong Wan* (CV 12), *Tian Shu* (St 25), *Wei Shu* (BL 21), and *Da Chang Shu* (BL 25).

REMARKS:

1. Chinese herbal medicine is typically extremely effective for the treatment of respiratory tract infections.

B. CONCOMITANT URINARY TRACT INFECTIONS

CHINESE MEDICAL DISEASE CATEGORIZATION: Urinary tract infections mostly correspond to the traditional Chinese disease categories of *lin zheng*, stranguary conditions.

CHINESE DISEASE MECHANISMS: Acute urinary tract infections concomitant with diabetes are usually species of re lin or heat stranguary. This heat may be damp heat, depressive heat, or heat toxins. Chronic urinary tract infections typically involve less heat and more vacuity. This vacuity may be liver-kidney yin vacuity, spleen-kidney yang vacuity, or kidney yin and yang vacuity depending on the original disease mechanisms, age of the patient, body constitution, diet, lifestyle, and previous treatment.

TREATMENT BASED ON PATTERN DISCRIMINATION:

1. HEAT TOXIN BLOODY STRANGURY PATTERN

MAIN SYMPTOMS: Emission of heat (i.e., fever), aversion to cold, lower abdominal distention and pain, frequent, urgent urination with hot pain, hematuria and possible pus in the urine, dry, bound stools, low backache, a red tongue with yellow fur, and a bowstring, rapid pulse

---

NOTE: This pattern mostly presents in diabetic patients with concomitant acute cystitis or acute pyelonephritis.

TREATMENT PRINCIPLES: Clear heat and resolve toxins, cool the blood and stop bleeding

RX: *Jie Du Qing Shen Tang* (Resolve Toxins & Clear the Kidneys Decoction)

INGREDIENTS: Flos Lonicerae Japonicae (*Jin Yin Hua*), Fructus Forsythiae Suspensae (*Lian Qiao*), Herba Cephalanoploris Segeti (*Xiao Ji*), and Folium Pyrrosiae (*Shi Wei*), 30g each, uncooked Radix Rehmanniae (*Sheng Di*), 20g, Nodus Rhizomatis Nelumbinis Nuciferae (*Ou Jie*), 15g, and Radix Scutellariae Baicalensis (*Huang Qin*), Fructus Gardeniae Jasminoidis (*Zhi Zi*), Cortex Radicis

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

securing and astringing the kidneys, such as Wu Zi Yan Zong Wan (Five Seeds Increase Progeny Pills), are commonly used guiding formulas for this condition.[1]

C. Concomitant Biliary Tract Infections

Chinese medical disease categorization: Biliary tract infections primarily correspond to the traditional Chinese medical disease categories of xie tong, rib-side pain, and huang dan, jaundice.

Chinese disease mechanisms: Because most cases of diabetes are complicated by qi vacuity, meaning spleen qi vacuity, it is common for the spleen to lose its fortification and movement. In that case, internal brewing of dampness and heat may disturb the liver's coursing and discharging and the gallbladder's free flow and downbearing of the central essence, hence causing stasis and stagnation on top of damp heat.

Treatment based on pattern discrimination:

1. Liver-gallbladder qi depression pattern

Main symptoms: Right rib-side distention, fullness, aching, and pain possibly radiating to the upper back with worsening of the pain due to emotional disturbance, chest oppression and discomfort, frequent burping, abdominal distention, a bitter taste in the mouth and dry throat, no marked heat or cold, no jaundice, thin, white or thin, yellow tongue fur, and a bowstring pulse

---

Note: While the name of the pattern only identifies liver-gallbladder qi depression, there is a minor element of damp heat.

Treatment principles: Course the liver and drain-bibit the gallbladder, move the qi and stop the pain

Rx: Chai Hu Shu Gan San Jia Jian (Bupleurum Course the Liver Powder with Additions & Subtractions)

Ingredients: Herba Lysimachiae Seu Desmodii (Jin Qian Cao), 30g, Radix Albus Paeoniae Lactiflorae (Bai Shao), 12g, Radix Bupleuri (Chai Hu), Fructus Citri Aurantii (Zhi Ke), Fructus Immaturus Citri Aurantii (Zhi Shi), Rhizoma Cyperi Rotundi (Xiang Fu), Radix Ligustici Wallichii (Chuan Xiong), Fructus Meliae Toosendan (Chuan Lian Zi), Radix Asklandiae Lappae (Ma Xiang), Radix Scutellariae Baicalensis (Huang Qin), Tuber Curcumae (Yu Jin), Rhizoma Corydalis Yanhusuo (Yan Hu Suo), and Pericarpium Citri Reticulatae Viride (Qing Pi), 9g each, and Radix Glycyrrhizae (Gan Cao), 6g

Formula analysis: Chai Hu, Zhi Ke, Zhi Shi, Xiang Fu, Qing Pi, and Ma Xiang course the liver and rectify the qi. Chuan Xiong quickens the blood. Bai Shao and Gan Cao relax cramping and stop pain. Chuan Lian Zi, Yan Hu Suo, and Huang Qin clear the liver, regulate the qi, and stop pain, and Jin Qian Cao disinhibits the gallbladder and expels stones.

Additions & subtractions: If the stomach has lost its harmony and downbearing with nausea and vomiting, add nine grams each of Flos Inulae Racemosae (Xuan Fu Hua) and Rhizoma Pinelliae Ternatae (Ban Xia) and two slices of uncooked Rhizoma Zingiberis (Sheng Jiang) to harmonize the stomach and stop vomiting. If there is simultaneous stomach dryness and heat with nonfree-flowing stools and abdominal distention and fullness, add 3-9 grams of Radix Et Rhizoma Rhei (Da Huang) to discharge heat and free the flow of the stools.

Acupuncture & moxibustion: Dan Nan Xue (M-LE-23) or Yang Ling Quan (GB 34), Tai Chong (Liv 3), Xing Jian (Liv 2), Zhang Men (Liv 13), Qi Men (Liv 14), Dan Shu (Bl 19)

Formula analysis: Draining the sunset point on the right side between Yang Ling Quan and Dan Nan Xue as well as Dan Shu disinhibits the gallbladder and expels stones. Needling Tai Chong through to Xing Jian with draining technique courses and drains the liver, clears heat and resolves depression. Draining He Gu and Tai Chong courses the liver and rectifies the qi. Draining right Zhang Men and Qi Men frees the flow of the channels and vessels in the rib-side and stops pain.

Additions & subtractions: If there is constipation, add draining Zhi Gou (TB 3), Nei Ting (St 44), Tian Shu (St 25), and Da Chang Shu (Bl 25) and supplementing Zhao Hai (Ki 6). If there is nausea and vomiting, add draining Zhong Wan (CV 12) and Nei Guan (Per 6). If there is concomitant blood stasis, add draining Xue Hai (Sp 10). If there is high fever, add draining Qu Chi (LI 11).

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

TREATMENT BASED ON PATTERN DISCRIMINATION:

1. HEAT TOXINS BLAZING & EXUBERANT WITH THE QI & CONSTRUCTIVE BOTH BURNT PATTERN

MAIN SYMPTOMS: High fever, vexatious thirst, heart vexation, insomnia, possible deranged speech, dry, bound stools, redness, swelling, heat, and pain in the affected area, dribbling and dripping of watery pus after ulceration, a dry, crimson tongue, and a fine, rapid pulse

---

NOTE: This pattern describes early stage septicemia due to a skin infection.

TREATMENT PRINCIPLES: Clear the constructive and resolve toxins, cool the blood and protect the heart

RX: *Jie Du Qing Ying Tang* (Resolve Toxins & Clear the Constructive Decoction)

INGREDIENTS: Flos Lonicerae Japonicae (*Jin Yin Hua*), Rhizoma Imperatae Cylindricae (*Bai Mao Gen*), and Herba Taraxaci Mongolici Cum Radice (*Pu Gong Ying*), 30g each, Fructus Forsythiae Superbae (*Lian Qiao*), uncooked Radix Rehmanniae (*Sheng Di*), Radix Rubrus Paeoniae Lactiflorae (*Chi Shao*), and Testa Semenis Mungitis (*Lu Dou Yi*), 15g each, Radix Rubiae Cordifoliae (*Qian Cao Gen*) and Pluriradix Notoginseng Nacifiorae (*Lian Zi Xin*), 12g each, uncooked Cinapsis Arvalis Stratnii (*Bie Jia*), 10-15g, Cortex Radicis Moutan (*Dan Pi*) and uncooked Fructus Gardeniae Jasminoidis (*Zhi Zi*), 9g each, and Rhizoma Coptidis Chinensis (*Huang Lian*), 6g

FORMULA ANALYSIS: *Jin Yin Hua*, *Lian Qiao*, and *Pu Gong Ying* clear heat and resolve toxins. *Zhi Zi* clears heat from the three burners. Combined with *Huang Lian*, it also clears heat in on the heart. *Dan Pi*, *Chi Shao*, and *Qian Cao Gen* clear heat, cool and quicken the blood. *Sheng Di* and *Bai Mao Gen* nourish yin and cool the blood, while *Bie Jia* clears heat and resolves toxins, settles the heart and levels the liver. *Lian Zi Xin* and *Lu Dou Yi* clear heat evils from within the heart.

ADDITIONS & SUBTRACTIONS: If high fever is pronounced, add 15 grams of *Cortex Bubali* (*Shui Niu Jiao*). If there is constipation, add 3-9 grams of Radix Et Rhizoma Rhei (*Da Huang*).

ACUPUNCTURE & MOXIBUSTION: He-Gu (LI 4), *Qu Chi* (LI 11), *Da Zhui* (GV 14)

FORMULA ANALYSIS: Draining *He Gu*, *Qu Chi*, and *Da Zhui* clears heat and recedes fever.

ADDITIONS & SUBTRACTIONS: For vexatious thirst, add supplementing *Zhao Hai* (K 6) and draining *Nei Ting* (St 44).

2. HEAT TOXINS BLAZING & EXUBERANT WITH CONSUMPTION & STIRRING OF THE BLOOD PATTERN

MAIN SYMPTOMS: Oral thirst, vexatious heat, generalized fever which is worse at night, dark, purplish skin macules, dimming of the spirit, deranged speech, redness and swelling of the affected area, dribbling and dripping of watery pus after ulceration, a crimson red tongue with scanty fur, and a fine, rapid pulse

TREATMENT PRINCIPLES: Clear heat and resolve toxins, cool and quicken the blood

RX: *Jie Du Liang Xue Tang Jia Jian* (Resolve Toxins & Cool the Blood Decoction with Additions & Subtractions)

INGREDIENTS: Uncooked Gypsum Fibrosum (*Shi Gao*), 60g, carbonized Flos Lonicerae Japonicae (*Jin Yin Hua*), Rhizoma Imperatae Cylindricae (*Bai Mao Gen*), and Radix Trichosanthis Kirilowii (*Tian Hua Fen*), 30g each, carbonized uncooked Radix Rehmanniae (*Sheng Di*), 20g, Cornu Bubali (*Shui Niu Jiao*), Radix Isatidis Seu Baphicacanthi (*Ban Lan Gen*), Herba Violae Yedoensis Cum Radice (*Zi Hua Di Ding*), and Pluriradix Notoginseng Nacifiorae (*Lian Zi Xin*), 15g each, Fructus Gardeniae Jasminoidis (*Zhi Zi*), 9g, uncooked Radix Glycyrrhizae (*Gan Cao*), 6g, and Rhizoma Coptidis Chinensis (*Huang Lian*), 3-6g

FORMULA ANALYSIS: *Shui Niu Jiao* clears heat and cools the blood, resolves toxins and settles fright. Carbonized *Sheng Di* and carbonized *Jin Yin Hua* enter the blood aspect and clear heat toxins within the blood aspect. They are also able to nourish yin and protect the heart. *Zi Hua Di Ding* and *Ban Lan Gen* clear heat and resolve toxins. *Tian Hua Fen*, *Bai Mao Gen*, and *Lian Zi Xin* nourish yin, cool the blood, and clear the heart. A heavy dose of *Shi Gao* strengthens and increases the function of clearing heat. *Zhi Zi* and *Huang Lian* clear heat toxins from the three burners and strongly clear heat from the heart, and uncooked

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Drain the Liver Decoction with Additions & Subtractions)

INGREDIENTS: Rhizoma Atractylodis (Cang Zhu) and Semen Plantaginis (Che Qian Zi), 15g each, uncooked Radix Rehmanniae (Sheng Di), 12g, Radix Gentianae Scabrae (Long Dan Cao), Radix Scutellariae Baicalensis (Huang Qin), stir-fried Fructus Gardeniae Jasminoidis (Zhi Zi), Rhizoma Alismatis (Ze Xie), Radix Bupleuri (Chai Hu), Radix Angelicae Sinensis (Dang Gui), Cortex Phellodendri (Huang Bai), Radix Sophorae Flavescentis (Ku Shen), and Fructus Cnidii Monnieri (She Chuang Zi), 9g each, and Caulis Akebiae (Mu Tong), 6g

FORMULA ANALYSIS: *Long Dan Cao*, *Huang Qin*, and *Zhi Zi* drain replete fire from the liver-gallbladder and eliminate lower burner damp-heat. *Ze Xie*, *Mu Tong*, *Che Qian Zi*, *Huang Bai*, and *Cang Zhu* clear and disinhibit lower burner dampness and heat. *Chai Hu* courses the liver and the liver channel traverses the genitalia. *Sheng Di* and *Dang Gui* nourish, cool, and quicken the blood. *Ku Shen* and *She Chuang Zi* dry dampness and stop itching.

NOTE: Because the bitter, cold medicinals in this formula easily damage the spleen and stomach, it is not appropriate for long-term administration.

ADDITIONS & SUBTRACTIONS: If damp-toxins are exuberant with dampness and possible seepage of the affected area relatively profuse, use Chu Shi Jie Du Tang Jia Jian (Eliminate Dampness & Resolve Toxins Decoction with Additions & Subtractions): uncooked Semen Coicis Lachryma-jobi (Yi Yi Ren) and Rhizoma Smilacis Glabrae (Tu Fu Ling), 30g each, Flos Lonicerae Japonicae (Jin Yin Hua) and Radix Angelicae Sinensis (Dang Gui), 20g each, Cortex Radicis Dictamni Dasycarpi (Bai Xian Pi), Talcum (Hua Shi), and Fructus Forsythiae Suspensae (Lian Qiao), 15g each, Rhizoma Dioscoreae Hypoglaucae (Bie Xie) and dry Semen Germinatus Glycinis (Dan Dou Huang Juan), 12g each, Fructus Gardeniae Jasminoidis (Zhi Zi), Cortex Phellodendri (Huang Bai), and Cortex Radicis Moutan (Dan Pi), 9g each, and Caulis Akebiae (Mu Tong) and uncooked Radix Glycyrrhizae (Gan Cao), 6g each. If damp-heat is due to spleen vacuity, add nine grams each of Radix Codonopsitis Pilosulae (Dang Shen) and Rhizoma Atractylodis Macrocephalae (Bai Zhu).

EXTERNAL APPLICATION: Wash and douche the affected area with a decoction made from 30 grams of Alum (Bai Fan) and 15 grams each of Radix Sophorae Flavescentis (Ku Shen), Cortex Phellodendri (Huang Bai), and Semen Cnidii Monnieri (She Chuang Zi) for 15-20 minutes each time, 1-3 times per day.

ACUPUNCTURE & MOXIBUSTION: Yin Ling Quan (Sp 9), San Yin Jiao (Sp 6), Qu Gu (CV 2)

NOTE: Acupuncture is only an adjunctive treatment for this pattern of this condition.

FORMULA ANALYSIS: Draining *Yin Ling Quan* and *San Yin Jiao* clears dampness and heat from the lower burner and urogenital tract. Draining *Qu Gu* clears heat and frees the flow of the channels in the affected area.

ADDITIONS & SUBTRACTIONS: If damp-toxins are relatively exuberant, add draining *Shang Qiu* (Sp 5). If there is concomitant spleen vacuity, add supplementing *Zu San Li* (St 36) and *Pi Shu* (Bl 20) and use even supplementing-even draining at *San Yin Jiao*.

2. YIN-BLOOD INSUFFICIENCY PATTERN

MAIN SYMPTOMS: Female genital itching accompanied by burning heat, pale red, dry skin in the affected area, heart vexation, insomnia, a dry mouth and parched throat, scanty menstruation, a dry red tongue with scanty fur, and a fine, rapid pulse

TREATMENT PRINCIPLES: Enrich yin and nourish the blood, moisten dryness and stop itching

RX: Si Wu Xiao Feng San Jia Jian (Four Materials Disperse Wind Powder with Additions & Subtractions)

INGREDIENTS: Uncooked Radix Rehmanniae (Sheng Di), 15g, Radix Angelicae Sinensis (Dang Gui) and Radix Polygoni Multiflori (He Shou Wu), 12g each, and Radix Albus Paeoniae Lactiflorae (Bai Shao), Radix Rubrus Paeoniae Lactiflorae (Chi Shao), Radix Ligustici Wallichii (Chuan Xiong), Spica Seu Flos Schizonepetae Tenuifoliae (Jing Jie Sui), Radix Ledebouriellae Divaricatae (Fang Feng), Fructus Tribuli Terrestris (Bai Ji Li), Cortex Radicis Dictamni Dasycarpi (Bai Xian Pi), Radix Lithospermi Seu Arnebiae (Zi Cao), Periostracum Cicadae (Chan Tui), and Fructus Kochiae Scopariae (Di Fu Zi), 9g each

FORMULA ANALYSIS: *Sheng Di*, *Dang Gui*, *Bai Shao*, *Chi Shao*, *Chuan Xiong*, *He Shou Wu*, and *Zi Cao* nourish the blood and moisten dryness, quicken the blood and dis-

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

spleen-stomach vacuity weakness with damp heat brewing and binding in the middle burner. Therefore, the treatment principles were to fortify the spleen and boost the qi, harmonize the stomach, stop dampness, and clear heat. The formula used was *Shen Ling Bai Zhu San Jia Wei* (Ginseng, Poria & Atractylodes Powder with Added Flavors): Radix Dioscoreae Oppositae (*Shan Yao*) and Semen Coicis Lachryma-jobi (*Yi Yi Ren*), 30g each, Sclerotium Poriae Cocos (*Fu Ling*), 20g, Radix Codonopsitis Pilosulae (*Dang Shen*), Rhizoma Coptidis Chinensis (*Huang Lian*), Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), 15g each, Semen Dolichoris Lablab (*Bai Bian Dou*), Fructus Amomi (*Sha Ren*), Semen Nelumbinis Nuciferae (*Lian Zi*), Radix Scutellariae Baicalensis (*Huang Qin*), Radix Sophorae Flavescentis (*Ku Shen*), and Pericarpium Citri Reticulatae (*Chen Pi*), 10g each, Radix Platycodi Grandiflori (*Jie Geng*), 6g, and stir-fried Radix Glycyrrhizae (*Gan Cao*), 5g.

After taking seven *ji* of the above formula, the white membranes in the mouth receded, the tongue fur was thin and white, but the tongue was still painful if the patient ate anything slightly hot. This suggested that, although dampness and heat had gradually been dispelled, yin fluids had been damaged. Therefore, *Huang Lian* was deleted from the above formula and 10 grams of Herba Dendrobii (*Shi Hu*) was added. After another seven *ji* of this formula, all the symptoms were eliminated. The tongue was pale red with thin, white fur, and three successive oral cavity fungal cultures proved negative. The man was then prescribed *Shen Ling Bai Zhu Wan* (Ginseng, Poria & Atractylodes Pills) in order to secure and consolidate the treatment effects. On follow-up after five years, there had been no recurrence.

Case 3[9]

The patient was a 50 year old male cadre who was first examined on Jan. 17, 1992 and whose main complaints were polydipsia, polyuria, lack of strength, and emaciation for two years and welling abscesses on his upper back for the past three months. This patient had been addicted to drinking alcohol for many years and had developed the above symptoms in the previous two years. In October of the previous year, a welling abscess had occurred on his upper back which had become purulent. This was surgically excised. At this time, the man's blood glucose was examined and it was found to be high. Therefore, he was diagnosed with diabetes accompanied by cellulitis. The man was treated with subdermal injections of insulin. However, the upper back welling abscess did not close and control of blood glucose was not satisfactory. Fasting blood glucose was 12.4mmol/L (224mg/dL) and urine glucose was (++++). Each day, the man used 54 units of subdermally injected insulin. Other presenting symptoms included dryness and heat, sweating, itchy skin, pricking pain which was difficult to bear in the four extremities and which disturbed his sleep, cold hands and feet, dry stools, a dark red tongue with thirsty, white fur, and a slippery, rapid pulse.

Based on these signs and symptoms, the patient's patterns were discriminated as qi and yin dual vacuity with dryness and heat entering the blood aspect or division and toxic blood obstructing the network vessels. Therefore, the treatment principles were to boost the qi and nourish yin, clear heat and cool the blood, quicken the blood and free the flow of the network vessels. The Chinese medicinals Dr. Zhu initially prescribed for this man included: uncooked Radix Astragali Membranacei (*Huang Qi*), 50g, uncooked Radix Rehmanniae (*Sheng Di*), 30g, Radix Scrophulariae Ningpoensis (*Xuan Shen*), 30g, Rhizoma Atractylodis Macrocephalae (*Bai Zhu*), 15g, Radix Salviae Miltiorrhizae (*Dan Shen*), 30g, Radix Puerariae (*Ge Gen*), 15g, Radix Scutellariae Baicalensis (*Huang Qin*), 6g, Fructus Lycii Chinensis (*Gou Qi Zi*), 30g, Ramulus Loranthi Seu Visci (*Sang Ji Sheng*), 20g, Ramulus Cinnamomi Cassiae (*Gui Zhi*), 10g, Radix Clematidis Chinensis (*Wei Ling Xian*), 10g, Caulis Millettiae Seu Spatholobi (*Ji Xue Teng*), 30g, Herba Lysimachiae Hemsleyanae (*Tu Mu Cao*), 30g, and Lignum Sappan (*Su Mu*), 10g. One *ji* of these medicinals was decocted in water and administered per day.

After taking the above medicinals for one month, the man's symptoms had decreased. The sores on his upper back had healed, his fasting blood glucose was 9.99mmol/L (180mg/dL), and the patient was able to decrease the dose of his daily insulin. However, the man still had a sensation of piercing pain in the muscles of his four limbs and he had trouble falling asleep at night. His tongue was pale red with thin, white fur, and his pulse was deep and slippery. Therefore, *Gui Zhi* was deleted from the original formula and 15 grams each of Ramulus Uncariae Cum Uncis (*Gou Teng*) and Rhizoma Piperis Horneri (*Hai Feng Teng*) were added.

The patient then took these Chinese medicinals for one month, after which he completely stopped his insulin. He continued with the Chinese medicinals but there was still some piercing pain in his four limbs, numbness, and a chilly sensation. Therefore, 15 grams of Caulis Trachelospermi (*Luo Shi Teng*) and two strips of large Scolopendra Subspinipes (*Wu Gong*) were added to the preceding formula. After 28 *ji* of this prescription, the

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

random, they will become pronounced after the onset of hyperthyroidism.

TREATMENT BASED ON PATTERN DISCRIMINATION:

1. LIVER DEPRESSION & SPLEEN VACUITY PATTERN

MAIN SYMPTOMS: Shortness of breath, lack of strength, discomfort in the center of the throat, chest and rib-side distention and pain, increased bowel movements, a dry mouth and parched throat, a heavy body, a fat, dark tongue with thin fur, and a bowstring, fine pulse

TREATMENT PRINCIPLES: Course the liver and rectify the qi, fortify the spleen and engender fluids

RX: Chai Hu Shu Gan San (Bupleurum Course the Liver Powder) plus Shen Ling Bai Zhu San (Ginseng, Poria & Atractylodes Powder) with additions and subtractions

INGREDIENTS: Radix Trichosanthis Kirlowii (Tian Hua Fen), 20g, Radix Puerariae (Ge Gen), Semen Dolichoris Lablab (Bai Bian Dou), Radix Albus Paeoniae Lactiflorae (Bai Shao), and Sclerotium Poriae Cocos (Fu Ling), 15g each, and Radix Bupleuri (Chai Hu), Fructus Citri Aurantii (Zhi Ke), Rhizoma Cyperi Rotundi (Xiang Fu), Radix Codonopsitis Pilosulae (Dang Shen), Rhizoma Atractylodis Macrocephalae (Bai Zhu), and Pericarpium Citri Reticulatae (Chen Pi), 9g each

FORMULA ANALYSIS: Chai Hu, Zhi Ke, Xiang Fu, and Chen Pi course the liver and rectify the qi. With Bai Shao, these medicinals may also be said to harmonize the liver. Dang Shen, Bai Zhu, Fu Ling, and Bai Bian Dou fortify the spleen and supplement the qi. Ge Gen and Tian Hua Fen engender fluids and stop thirst.

ADDITIONS & SUBTRACTIONS: If depression has transformed heat, add nine grams each of Fructus Gardeniae Jasminoidis (Zhi Zi) and/or Radix Scutellariae Baicalensis (Huang Qin) and/or three grams of Rhizoma Coptidis Chinensis (Huang Lian) depending on where the heat is located besides the liver-gallbladder.

ACUPUNCTURE & MOXIBUSTION: Tai Chong (Liv 3), Zu San Li (St 36), Pi Shu (Bl 20), Nei Ting (St 44), Zhao Hai (Ki 6)

FORMULA ANALYSIS: Draining Tai Chong courses and drains the liver. Even supplementing-even draining Zu San Li and supplementing Pi Shu fortifies the spleen and supplements the qi. Draining Nei Ting and supplementing Zhao Hai engenders fluids.

ADDITIONS & SUBTRACTIONS: If there is oral thirst, add draining Jie Che (St 6), Di Cang (St 4), and Cheng Jiang (CV 24). If there are loose stools, add supplementing Wei Shu (Bl 21), Tian Shu (St 25), and Da Chang Shu (Bl 25). To increase the rectification of the qi, add draining He Gu (LI 4). If depression has transformed heat, needle Tai Chong through to Xiang Jian (Liv 2). If heat is severe, add draining Qu Chi (LI 11).

2. YIN VACUITY-FIRE EFFULGENCE PATTERN

MAIN SYMPTOMS: Vexation and agitation, easy anger, heart palpitations, insomnia, oral thirst leading to drinking, emaciation, night sweats, increased food intake, trembling hands, quivering tongue, bulging eyes, a staring gaze, enlargement of the neck, a red tongue with scanty fur, and a fine, rapid pulse

---

NOTE: In this case, yin vacuity and fire effulgence have given rise to the internal engenderment of wind, thus the trembling hands and quivering mouth.

TREATMENT PRINCIPLES: Enrich yin and downbear fire

RX: Zhi Bai Di Huang Wan Jia Jian (Anemarrhena & Phellodendron Rehmannia Pills with Additions & Subtractions)

INGREDIENTS: Uncooked Radix Rehmanniae (Sheng Di), 20g, Sclerotium Poriae Cocos (Fu Ling), Radix Scrophulariae Ningpoensis (Xuan Shen), Radix Albus Paeoniae Lactiflorae (Bai Shao), and Radix Trichosanthis Kirlowii (Tian Hua Fen), 15g each, Tuber Ophiopogonis Japonici (Mai Men Dong), 12g, and Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu), Cortex Phellodendri (Huang Bai), Cortex Radicis Moutan (Dan Pi), Rhizoma Alismatis (Ze Xie), Fructus Corni Officinalis (Shan Zhu Yu), and Ramulus Uncariae Cum Uncis (Gou Teng), 9g each

FORMULA ANALYSIS: Shan Zhu Yu, Mai Men Dong, Xuan Shen, Sheng Di, and Tian Hua Fen supplement and enrich liver and kidney yin. Zhi Mu, Huang Bai, Dan Pi, and Ze Xie clear heat and drain fire. Bai Shao and Gou Teng emollient the liver and extinguish wind respectively.

ADDITIONS & SUBTRACTIONS: For night sweats, add

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Semen Cuscutae Chinensis (Tu Si Zi), Fructus Lycii Chinensis (Gou Qi Zi), Radix Achyranthis Bidentatae (Niu Xi), Gelatinum Cornu Cervi (Lu Jiao Jiao), Gelatinum Plastri Testudinis (Gui Ban Jiao), Radix Codonopsitis Pilosulae (Dang Shen), Rhizoma Atractylodis Macrocephalae (Bai Zhu), and Radix Angelicae Sinensis (Dang Gui), 9g each

Formula analysis: Shan Yao, Dang Shen, Bai Zhu, and Fu Ling fortify the spleen and boost the qi. Shu Di, Shan Zha Yu, Tu Si Zi, Gou Qi Zi, and Gui Ban Jiao nourish yin and supplement the kidneys. Dang Gui and Bai Shao nourish the blood and emollate the liver, while Gou Ji, Tu Si Zi, and Niu Xi supplement and strengthen the low back. Lu Jiao Jiao nourishes the blood and supplements yang in order to help foster the essence.

Additions & subtractions: For marked thirst, add 12 grams of Tuber Ophiopogonis Japonici (Mai Men Dong) and nine grams each of Radix Trichosanthis Kirlowii (Tian Hua Fen) and Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu). For spontaneous perspiration, add 15 grams of Radix Astragali Membranacei (Huang Qi) and nine grams of Fructus Schisandrae Chinensis (Wu Wei Zi). For yin vacuity giving rise to vacuity heat or fire effulgence, add nine grams each of Rhizoma Anemarrhenae Asphodeloidis (Zhi Mu) and Cortex Phellodendri (Huang Bai). For impotence, add nine grams each of Herba Epimedii (Xian Ling Pi) and Rhizoma Curculiginis Orchioidis (Xian Mao).

Acupuncture & moxibustion: Same as for qi and yin vacuity under Cushing's syndrome above. However, if there is no blood stasis, omit Xue Hai and use supplementing technique at San Yin Jiao.

Additions & subtractions: For numbness of the extremities, add even supplementing-even draining Ge Shu (Bl 17) and Gan Shu (Bl 18,) and Bai Xie (M-UE-22) for the upper extremities and Bi Feng (M-LE-8) for the lower extremities. For low back pain, add supplementing Yao Shu (GV 2), Yang Xing Guan (GV 3), and Yao Yan (M-BW-24).

Remarks:

1. The Western medical treatment of pituitary tumors is ablative via surgery or radiation. However, if surgery and radiotherapy are contraindicated or have failed to provide a cure, medical therapy, including Chinese medical therapy, is indicated. Chinese medicine can also be used while waiting for radiation to take effect.

2. Bob Flaws's teacher, Dr. Yu Min, working at the Yue Yang Hospital affiliated with the Shanghai University of Chinese Medicine, is a zhong liu ke or tumor specialist. She believes that pituitary tumors should be treated radically under the traditional Chinese rubric of wind and phlegm headache. Dr. Yu treated 16 patients with pituitary tumors with the following self-composed formula and, in all cases, the patients' clinical symptoms decreased or were completely eliminated: Herba Salviae Chinensis Cum Radice (Shi Jian Chuan) and uncooked Concha Ostreae (Mu Li), 30g each, Bombyx Batryticatus (Jiang Can), Sclerotium Poriae Cocos (Fu Ling), and Sclerotium Polypori Umbellati (Zhu Ling), 15g each, Rhizoma Anisantmi (Nan Xing), Rhizoma Pinelliae Ternatae (Ban Xia), Spica Prunellae Vulgaris (Xia Ku Cao), and Rhizoma Acori Graminei (Shi Chang Pu), 10g each, Yu Nai Wan (Taro Pills), 9g wrapped, Scolopendra Subspinipes (Wu Gong), 2 strips, and Gecko (Ge Jie), 2 strips. These medicinals were decocted in water and administered internally.

If headache was severe, Rhizoma Dioscoreae Bulbiferae (Huang Yao Zi) and Bulbus Martensia (Quan Xie) were added. If the vision was blurred, Semen Cassiae Torae (Jue Ming Zi), Semen Celosiae (Qing Xiang Zi), Fructus Lycii Chinensis (Gou Qi Zi), and Flos Chrysanthemi Morifolii (Ju Hua) were added. If there was ductal oppression and torpid intake, Pericarpium Citri Reticulatae (Chen Pi), uncooked Semen Coicis Lachryma-jobi (Yi Yi Ren), Endothelium Corneum Gigeriae Galli (Ji Nei Jin), and scorched Massa Medica Fermentata (Shen Qu) were added. If there was liver-kidney insufficiency, Radix Angelicae Sinensis (Dang Gui), uncooked Radix Rehmanniae (Sheng Di), Radix Glehniae Littoralis (Sha Shen), Tuber Ophiopogonis Japonici (Mai Men Dong), and Fructus Lycii Chinensis (Gou Qi Zi) were added. If there was amenorrhea, Radix Angelicae Sinensis (Dang Gui) and Radix Ligustici Wallichii (Chuan Xiong) were added. If there was vomiting of acid, Radix Auklandiae Lappae (Mu Xiang), Caulis Bambusae In Taenia (Zhu Ru), Pericarpium Citri Reticulatae (Chen Pi), Flos Inulae Racemosae (Xuan Fu Hua), and Aspongopus (JiuXiang Chong) were added. If there was impotence, Semen Cuscutae Chinensis (Tu Si Zi), Herba Epimedii (Xian Ling Pi), and Rhizoma Curculiginis Orchioidis (Xian Mao) were added. If there was qi vacuity, Radix Astragali Membranacei (Huang Qi) and Radix Pseudostellariae Heterophyllae (Tai Zi Shen) were added. And if there was insomnia, Medulla Junci Effusi (Deng Xin Cao), Radix Polygalae Tenuifoliae (Yuan Zhi), and Cinnabar (Zhu Sha) were added.

According to Dr. Yu, recalcitrant phlegm should be treated by warm, drying medicinals since "phlegm is a yin evil

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

27

SYNDROME X

In 1988, Dr. Gerald Reaven, in an acceptance speech for the Banting Award from the American Diabetes Association, first described a constellation of six metabolic abnormalities he labeled syndrome X. These metabolic changes include glucose intolerance, insulin resistance, hyperinsulinemia, hypertriglyceridemia, low high-density lipoprotein (HDL), and hypertension. Today, some doctors and researchers also include blood-clotting or dyslibrinolysis.[1] All these abnormalities increase the risk of heart attack. Although patients with syndrome X do not have diabetes, this syndrome is associated with blood sugar metabolism abnormalities or dysglycemia and, in many cases, does lead to eventual diabetes. Therefore, we have chosen to include a short discussion of syndrome X in this work. Other names for syndrome X include insulin resistance syndrome, polymetabolic syndrome, cardiovascular dysmetabolic syndrome, and visceral fat syndrome. This syndrome is primarily found in developed countries. It is estimated that one in every 3-4 Americans (i.e., 60-75 million persons) is at risk for developing syndrome X. Other sources say that two-thirds of all Americans have syndrome X,[2] and half or more heart attacks occur because of syndrome X.[3]

In terms of the causes of syndrome X, it is a multifactorial condition which develops as a result of the interaction between one's lifestyle (including diet) and genes. Insulin resistance occurs when the normal amount of insulin secreted by the pancreas is not able to unlock the doors to the cells for the transport of serum glucose into the cells. When this occurs, the pancreas secretes additional insulin. This results in hyperinsulinemia. If the cells continue to resist or do not respond to even high levels of plasma insulin, glucose builds up in the blood, thus leading to hyperglycemia and eventual type 2 diabetes. However, if this additional secretion of insulin is able to push the glucose into the cells, the person's blood glucose levels may be normal or only slightly elevated. The complex process whereby insulin facilitates the transportation of serum glucose into the cells depends on many genes, and it is currently believed that insulin resistance is a combination of genetic flaws rather than the fault of a single gene. It is now known that persons of non-European ancestry are more likely to be insulin resistant than those of European ancestry.[4]

However, genetic predisposition is only responsible for half the causes of syndrome X. The other half is attributable to lifestyle. The specific lifestyle characteristics that have been identified as risk factors for syndrome X are excessive body weight, insufficient physical exercise, tobacco smoke inhalation, alcohol intake, and diet. The more overweight one is, the greater degree of insulin resistance. In particular, it is central obesity, i.e., obesity of the central trunk (or gut), that is particularly at fault, and increased physical exercise is able to reduce body weight. In terms of diet, insulin resistance is caused, in large part, by over consumption of refined carbohydrates, such as breads, pastas, and sugary foods. In addition, eating too many saturated fats (found in beef), omega-6 fatty acids (found in vegetable oils), and trans-fatty acids (found in margarine and foods containing partially hydrogenated oils) also increases the risk of insulin resistance.[5] One explanation for this is that, when a person eats a lot of refined carbohydrates year after year, a dangerous cascade occurs. Insulin levels remain chronically high, and the cells become less responsive and thus resistant to the insulin. As a consequence, relatively little glucose gets burned and levels in the blood remain high. If the glucose levels in the blood are chronically elevated, insulin resistance evolves into diabetes.

When blood glucose is steadily higher than normal

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

APPENDIX B

WESTERN DIABETES MEDICATIONS & THEIR POSSIBLE SIDE EFFECTS

The following are the main Western medicines currently used for the treatment of diabetes mellitus.

1. SULFONYLUREAS

Sulfonylureas are a class of orally administered medications which stimulate the pancreatic production of insulin and help the body utilize the insulin it makes, thus lowering blood glucose. For these medications to be effective, the pancreas must still be producing insulin on its own.

GENERIC NAME	BRAND NAMES
acetohexamide	**Dymelor**
chlorpropamide	**Diabinese**
glimepiride	**Amaryl**
glipizide	**Glucotrol, Glucotrol XL**
glyburide	**DiaBeta, Glynase PreTab, Micronase**
tolazamide	**Tolinase**
tolbutamide	**Orinase**

Possible side effects from sulfonylureas include hypoglycemia, upset stomach, skin rashes and/or itching, and weight gain. Tolazamide and tolbutamide have been especially associated with atherogenesis leading to coronary artery disease.

2. BIGUANIDES

Biguanides are orally administered medications which decrease the amount of sugar made by the liver and increase the peripheral uptake of glucose. They also help correct insulin resistance and decrease lipids. They are the drug of choice for "prediabetics."

GENERIC NAME	BRAND NAMES
metformin	**Glucophage**

Possible side effects from biguanides include nausea, vomiting, and diarrhea initially, fatigue, weakness, trouble breathing, a metallic taste in the mouth, aggravation of kidney problems, and lactic acidosis.

3. ALPHA-GLUCOSIDASE INHIBITORS

Alpha-glucosidase inhibitors are orally administered medications which slow the absorption of starches consumed.

GENERIC NAME	BRAND NAMES
acarbose	**Precose**
miglitol	**Glyset**

Possible side effects of alpha-glucosidase inhibitors include stomach problems and flatulence.

4. THIAZOLIDINEDIONES

Thiazolidinediones are orally administered medications which make one more sensitive to insulin. Therefore, insulin can move more easily from the blood into the cells for energy. They also increase high density lipids, preserve B cell function, and protect vascular function.

GENERIC NAME	BRAND NAMES
pioglitazone	**Actos**
rosiglitazone	**Avandia**

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

GLAUCOMA: A disease of the eye characterized by high intraocular pressure, damaged optic disk, atrophy of the optic nerve, and hardening of the eyeball resulting in partial defect in the field of or complete loss of vision. Glaucoma is associated with high blood pressure, diabetes, atherosclerosis, and optic nerve damage.

GLOMERULOPATHY: Any disease of the glomerulus of the kidney.

GLOMERULOSCLEROSIS DIABETICA: Fibrosis of the renal glomeruli seen in some cases of diabetes.

GLUCAGON: A hormone produced by the alpha cells which stimulates release of glycogen stored in the liver and muscles, thus raising the level of blood glucose when the blood glucose falls to levels below normal. Glucagon is available as an injectible preparation for very severe low blood glucose reactions.

GLUCOSE: A simple form of sugar that acts as the body's fuel. It is produced when foods are metabolized in the digestive system and carried by the blood to the cells for energy. The amount of glucose in the blood is known as the blood glucose level or glycemia.

GLUCOSE TOLERANCE TEST: A blood test utilizing 4-5 specimens over 3-4 hours used to make the diagnosis of diabetes, including gestational diabetes.

GLYCOGEN: The stored form of glucose found in the liver and muscles.

GLYCOSURIA: The urinary secretion of glucose, usually in enhanced quantities.

GLYCOSYLATED HEMOGLOBIN (HbA1c): A test administered to review average blood glucose control for the past 3-4 months.

HEMODIALYSIS: The most common form of treatment for end stage renal failure. After surgically implanting a piece of graft material tubing, an artificial kidney is used to remove waste from the person's blood.

HEMOGLOBIN: A substance in red blood cells that picks up oxygen in the lungs and supplies oxygen to the cells of the body.

HIGH DENSITY LIPOPROTEIN (HDL): Called the "good" cholesterol, high density lipoprotein removes cholesterol from the blood stream, thus preventing it from accumulating in the blood vessels.

HORMONE: A chemical substance produced in tiny quantities by the body's endocrine glands and circulated by the blood.

HYPERGLYCEMIA: A high blood glucose level.

HYPERGLYCEMIC EPISODE OR REACTION: Refers to abrupt onset of severe elevation in blood glucose levels causing acute complications, such as stupor, lethargy, blurred vision, disorientation, slow responses, weakness, diabetic ketoacidosis, and nonketotic hyperosmolar coma.

HYPERINSULINISM (HYPERINSULINEMIA): Increased levels of insulin in the plasma due to increased secretion of insulin by the beta cells of the pancreatic islets and decreased liver removal of insulin or insulin resistance. This condition is most commonly found in obese persons with hyperglycemia.

HYPERLIPIDEMIA: The presence of abnormally large amounts of lipids or fats in the circulating blood.

HYPERTENSION: High blood pressure.

HYPERTRIGLYCERIDEMIA: High levels of triglycerides in the blood.

HYPOGLYCEMIA (GLUCOPENIA): A condition in which blood glucose drops too low and which can occur slowly (CNS symptoms) or rapidly (sympathetic symptoms). Hypoglycemia may cause cognitive dysfunction and loss of consciousness if untreated.

HYPOGLYCEMIA UNAWARENESS: The lack of ability to recognize warning signs of hypoglycemia, such as weakness, nervousness, sweating, increased heart rate, and irritability. This condition is found in the elderly, long-term diabetes patients, and those using beta-blockers.

HYPOGLYCEMIC COMA: Loss of consciousness resulting from excessive doses of exogenous insulin or oral hypoglycemic agents.

HYPONATREMIA: Low blood sodium.

IMPAIRED GLUCOSE TOLERANCE: A condition in which blood sugar levels are higher than normal but are not high enough to be classified as diabetes. However, this is a risk factor for type 2 diabetes.

IMPOTENCE: Inability to achieve and/or sustain an erection.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

BIBLIOGRAPHY

CHINESE LANGUAGE BIBLIOGRAPHY

BOOKS

Chen Ao-rong, *Qian Fang Zhi Bai Bing* (*Thousands of Prescriptions to Treat Hundreds of Diseases*), People's Army Medical Press, Beijing, 1994

Chen Bao-ming & Zhao Jin-xi, *Gu Fang Miao Yong* (*Ancient Formulas, Wondrous Uses*), Beijing Science & Technology Publishing Co., Beijing, 1994

Cheng Bao-shu *et al.*, *Zhen Jiu Da Ci Dian* (*The Great Dictionary of Acupuncture & Moxibustion*), Beijing Science & Technology Publishing Co., Beijing, 1988

Chen Jia-yang, *Shi Yong Zhong Yi Shen Jing Bing Xue* (*A Study of Practical Chinese Medical Neurology*), Gansu Science & Technology Publishing Co., Lanzhou, 1989

Chen Kang-mei & Gao Xiao-lan, *Er Xue Zhi Bai Bing* (*The Treatment of Hundreds of Diseases with Ear Acupuncture*), People's Army Medical Press, Beijing, 1995

Cheng Shi-de, *Nei Jing Jiang Yi* (*Inner Classic Teaching Materials*), Shanghai Science & Technology Publishing Co., Shanghai, 1985

Cui Shu-gui *et al.*, *Shi Yong Zhen Jiu Nei Ke Xue* (*A Study of Practical Acupuncture-moxibustion in Internal Medicine*), White Mountain Press, Chenyang, 1991

Dan Shu-jun & Chen Zi-hua, *Xiao Ke Juan* (*The Wasting & Thirsting Book*), Chinese National Chinese Medicine & Medicinals Publishing Co., Beijing, 1999

Dong Zhen-hua *et al.*, *Zhu Chen Zi Jing An Ji* (*A Collection of Zhu Chen-zi's Experiences*), People's Health & Hygiene Publishing Co., Beijing, 2000

Gan Rui-feng & Li Ren-he, *Tang Niao Bing* (*Diabetes*), People's Health & Hygiene Publishing Co., Beijing, 1985

Gao Yan-bin, *Zhong Guo Tang Niao Bing Fang Zhi Te Se* (*The Characteristics of the Chinese National Prevention & Treatment of Diabetes*), Heilongjiang Science & Technology Publishing Co., Harbin, 1995

Gao Ying-sen *et al.*, *Zhong Yi Nei Ke Lin Chuang Shou Ce* (*A Clinical Handbook of Chinese Medicine Internal Medicine*), People's Health & Hygiene Publishing Co., Beijing, 1996

Gao Zhen-qiu, *Zhong Yi Er Ke Xue* (*A Study of Chinese Medical Pediatrics*), Changchun Publishing Co., Beijing, 2000

Han Guang-mei, *Zhong Yi Nei Ke Zhi Yan* (*Chinese Internal Medicine Treatments*), Guizhou Science & Technology Press, Guizhou, 1992

Hu Zhao-ming, *Zhong Guo Zhong Yi Mi Fang Da Quan* (*A Great Compendium of Chinese National Chinese Medical Secret Formulas*), Literary Propagation Publishing Co., Shanghai, 1992

Huang Wen-dong, *Shi Yong Zhong Yi Nei Ke Xue* (*A Study of Practical Chinese Medicine Internal Medicine*), Shanghai Science & Technology Publishing Co., Shanghai, 1985

Huang Yong-yuan, *Qi Nan Zu Zhong Jing Xuan* (*A*

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

& Coursing and Disinhibiting the *Shao Yang*," *Zhong Yi Za Zhi* (*Journal of Chinese Medicine*), #6, 2001, p. 332-333.

Wu Seng-shou, "The Treatment of 50 Cases of Diabetes with Jia *Wei Shen Qi Wan* (Added Flavors Kidney Qi Pills) Plus Western Medicines—With a Comparison to 51 Patients Treated with Glyburide," *Zhe Jiang Zhong Yi Za Zhi* (*Zhejiang Journal of Chinese Medicine*), #5, 2000, p. 194.

Xia Cheng-dong, "An Exploration of the *Nei Jing*'s Treatise on Wasting & Thirsting," *Si Chuan Zhong Yi* (*Sichuan Chinese Medicine*), #8, 2001, p. 15-16.

Xin Cheng-dong, "Plucking the Essentials of Professor Ding Xue-bing's Experiences in Treating Diabetes," *Xin Zhong Yi* (*New Chinese Medicine*), #2, 2001, p. 16-17.

Xiao Hui, "Clinical Observations on the Treatment of 30 Cases of Diabetes Using *Hao Xue Zhi Xiao Tang* (Quicken the Blood & Stop Wasting Decoction)," *Jiang Su Zhong Yi* (*Jiangsu Chinese Medicine*), #5, 2000, p. 19-20.

Xiao Yan-qiao, "Important Examples in the Discrimination & Treatment of Diabetes," *Shang Hai Zhong Yi Yao Za Zhi* (*Shanghai Journal of Chinese Medicine & Medicinals*), #9, 1997, p. 14-15.

Xie Xi-sheng, "Feng Zhi-rong's Understanding & Experiences in the Treatment of Type II Diabetes," *Si Chuan Zhong Yi* (*Sichuan Chinese Medicine*), #1, 1999, p. 1-2.

Xin Jun et al., "The Treatment of 52 Cases of Diabetic Nephropathy with Integrated Chinese-Western Medicine," *Shan Xi Zhong Yi* (*Shanxi Chinese Medicine*), #6, 1999, p. 23.

Xing Hai-yan, "An Experimental Study of the Treatment of Type II Diabetes & Its Chronic Complications with *Tang Ye Ping* (Sugar & Stasis Leveler)," *He Nan Zhong Yi* (*Henan Chinese Medicine*), #5, 2000, p. 29-30.

Xiong Man-qi et al., "Clinical Observations on Changes of the Tones in Different Chinese Medical Patterns of Diabetes," *Zhong Yi Za Zhi* (*Journal of Chinese Medicine*), #10, 1998, p. 597-598.

Xu De-ri, "The Treatment of 38 Cases of Diabetic Peripheral Neuropathy Using *Jian Bi Tong Luo* (Alleviate Impairment & Free the Flow of the Network Vessels [Decoction])," *Hei Long Jiang Zhong Yi Yao* (*Heilongjiang Chinese Medicine & Medicinals*), #3, 1998, p. 26.

Xu Pei-ying et al., "A Clinical Audit of the Treatment of Type II Diabetes (Qi & Yin Dual Vacuity Pattern) with *Yi Qi Yang Yin Fang* (Boost the Qi & Nourish Yin Formula)," *Shang Hai Zhong Yi Yao Za Zhi* (*Shanghai Journal of Chinese Medicine & Medicinals*), #11, 2001, p. 20-21.

Xu Sheng-sheng, "The Treatment of 32 Cases of Diabetic Neurogenic Bladder Using *Tong Quan Tang* (Free the Flow of the Spring Decoction)," *Si Chuan Zhong Yi* (*Sichuan Chinese Medicine*), #11, 1998, p. 25.

Xu Sheng-sheng, "The Use of *Yi Qi Zhu Yu Tong Mai Tang* (Boost the Qi, Dispel Stasis & Free the Flow of the Vessels Decoction) in the Treatment of Diabetic Peripheral Neuropathy," *Jiang Su Zhong Yi* (*Jiangsu Chinese Medicine*), #3, 1999, p. 23.

Xu Yuan, "Six Important Issues in Understanding How to Treat Diabetes," *Shan Dong Zhong Yi Za Zhi* (*Shandong Journal of Chinese Medicine*), #1, 2000, p. 40-41.

Xu Tan-sheng & Cheng Yi-chun, "Experiences in the Treatment of Two Cases of Diabetes & Arteriosclerosis," *Zhong Yi Za Zhi* (*Journal of Chinese Medicine*), #6, 1997, p. 358.

Xu Zhao-shan, "The Treatment of 42 Cases of Diabetic Gastric Paresis with Pattern Discrimination—Plus a Comparison with 40 Cases Treated with Western Medicine," *Zhe Jiang Zhong Yi Za Zhi* (*Zhejiang Journal of Chinese Medicine*), #4, 2001, p. 145-146.

Xu Zhu-ting, "The Treatment of 76 Cases of Diabetes Accompanied by Hyperlipidemia with Self-composed *Jia Wei Jiang Zhi Tang* (Nine Flavors Lower Fat Decoction)," *Shang Hai Zhong Yi Yao Za Zhi* (*Shanghai Journal of Chinese Medicine & Medicinals*), #12, 1999, p. 30-31.

Xue Fu-yu, "A Clinical Audit of the Treatment of 63 Cases of Type II Diabetes with *Jiang Tang Huo Xue Fang* (Lower Sugar & Quicken the Blood Formula)," *Bei Jing Zhong Yi* (*Beijing Chinese Medicine*), #2, 1999, p. 19-20.

Xue Wen-xun, "Observations on the Effectiveness of Self-composed *Jiang Tang Yin* (Lower Sugar Drink) on the Treatment of 42 Cases of Diabetes," *Ji Lin Zhong Yi Yao* (*Jilin Chinese Medicine & Medicinals*), #2, 1998, p. 11-12.

Yi Dao-sheng, "A Clinical Audit on the Treatment of 66 Cases of Type II Diabetes with *Tang Niao Ping Tang* (Sugar Wasting Leveling Decoction)," *Zhe Jiang Zhong Yi Za Zhi* (*Zhejiang Journal of Chinese Medicine*), #9, 1999, p. 407.

You have either reached a page that is unavailable for viewing or reached your viewing limit for this book.

Formula Index

B

Ba Er Dan, 230
Ba Wei Shen Qi Wan, 124-130
Ba Wei Wan, 16, 120
Ba Zhen Tang, 250, 254
Ba Zhen Tang Jia Jian, 254
Ba Zhong San Jia Jian, 186
Bai Hu Jia Ren Shen Tang, 12, 45, 125, 128, 242
Bai Hu Jia Ren Shen Tang Jia Jian, 125, 242
Bai Hu Tang, 33, 43, 112, 128, 157
Bai Yu Gao, 292
Ban Xia Xie Xin Tang, 190, 369
Bei Ma Guai Lou San, 53
Bie Xie Shen Shi Tang, 229, 251
Bu Fei Tang Jia Jian, 296
Bu Nang Huan Wu Tang, 199, 206, 215, 220, 240, 271, 275, 278, 280, 359, 370, 374
Bu Nang Huan Wu Tang Jia Jian, 199, 240, 273
Bu Yin Gu Se Tang, 49
Bu Zhong Yi Qi Tang, 171, 185, 190, 195, 204, 210, 217, 220, 319, 321, 367
Bu Zhong Yi Qi Tang Jia Jian, 213
Bu Zhong Yi Qi Tang Jia Wei, 173, 204

C

Chai Hu Shu Gan San, 301, 318, 332
Chai Hu Shu Gan San Jia Jian, 303
Chai Hu Shu Gan Yin Jia Jian, 191, 303
Chen Xiang San Jie Jian, 188
Chu Shi Jie Du Tang Jia Jian, 310
Chu Shi Wei Ling Tang Jia Jian, 241
Chun Ze Tang, 185

D

Da Bu Yin Wan, 44, 366
Da Chai Hu Tang Jia Jian, 302
Da Huang Su Du Pian, 218
Dan Qi Di Huang Tang, 161-162, 165, 167, 369
Dan Shen Zhi She Ye, 206, 230, 286-287
Dang Gui Bu Xue Tang, 231, 283
Dang Gui Bu Xue Tang Jia Jian, 231
Dang Gui Huo Xue Tang, 50
Dang Gui Si Ni Tang, 198, 262
Dang Gui Si Ni Tang Jia Jian, 198
Dang Gui Yin Zi Jia Jian, 245
Dao Chi San, 187, 251
Dao Hua Sheng Yin Tang, 48
Dao Tan Tang Jia Jian, 181, 204
Di Dan Tang Jia Jian, 272
Di Tan Tang, 136, 262
Du Huo Ji Sheng Tang Jia Jian, 175

E

Er Chen Tang, 51, 189-190, 371
Er Chen Tang Jia Jian, 190
Er Miao San, 175-176, 251
Er Xian Tang, 283
Er Yin Jian Jia Wei, 330-331
Er Zhu Gao, 244

F

Fang Ji Huang Qi Tang, 269
Fu Fang Dan Shen Zhi She Ye, 206, 230, 287
Fu Fang Jiang Yu Pian, 143-145
Fu Zi Li Zhong Tang, 195

G

Gan Cao Yun, 242
Gan Lu Xiao Du Yin Jia Wei, 81
Gan Lu Xiao Ke Wan, 98, 315
Gan Lu Yin, 15, 43
Ge Gen Qin Lian Tang Jia Jian, 193
Gua Lou Cong Bai Ban Xia Tang, 162
Guan Tong Tang, 162
Gui Fu Di Huang Tang, 289
Gui Pi Tang, 180, 183, 204, 260
Gui Pi Tang Jia Jian, 183
Gui Pi Tang Jia Wei, 204
Gui Zhi Fu Ling Wan Jia Wei, 240
Gui Zhi Jia Long Mu Li Tang Jia Wei, 196
Gui Zhi Tang, 240-241

H

He Che Da Zao Wan, 203
He Chen Tang, 44
Hong You Gao, 230
Hu Qian Wan Jia Jian, 174, 177
Hua Tan Tong Luo Tang Jia Jian, 271
Hua Yu Jiang Tang Tang, 51
Huai Ju Xun Yi Fang, 234, 236, 365
Huang Dan Tang, 261
Huang Lian Di Huang Tang, 43
Huang Lian Jie Du Tang, 125
Huang Lian Wen Dan Tang, 87, 127, 142, 181, 187, 202, 262, 312, 367
Huang Lian Wen Dan Tang Jia Jian, 142, 322
Huang Lian Wen Dan Tang Jia Wei, 87, 187, 202, 262
Huang Qi Gui Zhi Wu Wu Tang, 173, 308, 242, 366
Huang Qi Gui Zhi Wu Wu Tang Jia Jian, 123
Huang Qi Gui Zhi Wu Wu Tang Jia Wei, 308, 366
Huang Qi Liu Yi Tang, 90
Huang Qi Tang Jia Jian, 199, 41, 192, 314
Huang Qi Yin, 46, 305
Huang Qi Zhe She Ye, 55, 230, 366
Huo Xue Jiang Tang Fang, 50
Huo Xue Jiang Tang Jiao Nang, 228, 234
Huo Xue Tong Mai Nang Bao, 230
Huo Xue Zhi Tong San, 233

J

Ji Huat Ye, 230
Ji Huang Si Wu Tang Jia Wei, 223
Ji Sheng Shen Qi Wan, 178, 186, 285
Ji Sheng Shen Qi Wan Jia Jian, 186
Jia Jian Wei Rui Tang Jia Jian, 294
Jia Wei Er Chen Tang, 51, 323
Jia Wei Er Miao San Jia Jian, 175-176
Jia Wei Si Mo Tang, 212, 220, 362
Jia Wei Si Wu Tang, 50, 175, 223
Jia Wei Xiao Da Yin, 81, 248, 252, 304
Jiang Tang Li Shen Fang, 287, 289, 292, 362
Jiang Tang Ling, 275, 315, 361
Jiang Tang Sheng Mai Fang Jia Jian, 266
Jiang Tang Yin, 159, 362, 366, 369, 371, 373-374
Jiang Xin Tang, 46
Jiang Zhi Er Hao Fang, 149
Jiang Zhi San Hao Fang, 150
Jiang Zhi Si Hao Fang, 150
Jiang Zhi Yi Hao Fang, 148
Jie Du Liang Xue Tang Jia Jian, 326
Jie Du Qing Ying Tang, 306
Jie Du Yang Yin Tang, 305, 307
Jie Du Yang Yin Tang Jia Jian, 305
Jin Gui Shen Qi Wan, 87, 96, 159, 178, 205, 283, 290, 300, 327
Jin Gui Shen Qi Wan Jia Jian, 159, 96
Jin Gui Shen Qi Wan Jia Wei, 205
Jin Huang Gao, 230
Jin Huang San, 120, 230
Jin Shui Xiang Sheng Yin, 90
Jing Xuan Hua Shi Fang, 51
Jiu Wei Jiang Zhi Tang, 151, 321
Jiu Yi Dan, 230
Juan Kan Tang, 291

L

Li Zhong Tang, 195
Li Zhong Wan Jia Wei, 190
Liang Ge Jia Fei Yin, 44
Liu Wei Di Huang Wan, 47, 102, 113, 120, 186, 197, 200, 204, 232, 309, 319, 363
Liu Wei Di Huang Wan Jia Jian, 120, 232
Liu Wei Di Huang Wan Jia Wei, 120, 197, 204, 232, 363
Liu Wei Wan, 15
Long Dan Xie Gan Tang Jia Jian, 184, 231, 309
Long Dan Xie Gan Tang Jia Wei, 246
Long Dan Xie Gan Wan, 313
Luo Shi Huang Qi Shui Zhi Tang, 223

M

Ma Zi Ren Wan Jia Jian, 192
Mai Men Dong Yin Zi, 45
Mi Tuo Seng Gao, 255

N

Nei Jin Ou Ye Jian, 51

Nei Tuo Sheng Ji San Jia Jian, 305
Niu Huang Jiang Ya Pian, 143
Niu Huang Xing Xiao Wan, 229

P

Ping He Ye, 230

Q

Qi Ju Di Huang Tang Jia Jian, 141
Qi Ju Di Huang Wan, 47, 84, 144, 161, 164, 200, 282, 325
Qi Ju Di Huang Wan Jia Jian, 164, 282
Qi Ju Di Huang Wan Jia Wei, 200
Qi Mai Di Huang Tang Jia Jian, 99, 314
Qiang Huo Chu Shi Tang, 242
Qiang Huo Xing Bi Tang, 174
Qing Dai Guo, 247, 251, 255-256
Qing Dai San, 241
Qing Gan Jiang Tang Tang, 112
Qing Gong Tang Jia Jian, 126
Qing Gong Tang Jia Wei, 133
Qing Hao Bie Jia Tang, 32
Qing Pi Chu Shi Yin, 247
Qing Re Jie Du Li Shi Tang, 304
Qing Shen Bu Qi Tang, 15
Qing Wei San Jia Jian, 307
Qing Wei Tang Jia Wei, 133, 246
Qing Wei Zi Zao Yin, 44
Qing Xin Lian Zi Yin, 17, 44
Qing Ying Tang, 160, 306

R

Ren Dong Er Ding Jie Du Tang, 225
Ren Shen Bai Hu Tang Jia Wei, 128
Ren Shen Tang, 12, 45, 125, 127, 133, 242, 263
Ren Shen Yang Ying Tang Jia Jian, 203
Run Chang Tang Jia Jian, 193

S

San Miao San, 40, 175-176, 251, 297
San Ren Tang Jia Jian, 209, 365
San Zi Yang Qin Tang, 243
Sang Bai Pi Tang Jia Jian, 294
Sang Piao Xiao San, 48
Sha Shen Mai Dong Tang, 45, 83, 295
Sha Shen Mai Dong Tang Jia Jian, 295
Sha Shen Mai Men Dong Tang Jia Wei, 83
Shen Fu Tang, 31, 263
Shen Ling Bai Zhu San, 16, 52, 80, 85, 102, 195, 241, 263, 311, 314, 316, 318, 363,
Shen Ling Bai Zhu San Jia Wei, 80, 314
Shen Qi Tao Hong Tang, 50
Shen Qi Wan, 12, 16, 48, 87, 96, 101, 129-130, 159, 178, 186, 205, 250, 262, 283, 290, 300, 327, 371,
Shen Qi Wen Jia Wei, 101, 205, 371
Shen Qi Yu Xiao Tang, 93, 367
Shen Qi Zhen Wu Tang, 180
Shen Qi Zhi Ma Tang, 247
Shen Su Yin, 294
Shen Tong Zhu Yu Tang, 174
Sheng Ji Gao, 230
Sheng Ji Yu Hong Gao, 241, 250, 305, 316
Sheng Jin Gan Lu Yin Zi, 15
Sheng Mai San, 45, 85, 87, 113, 124, 129, 158, 250, 260, 262-263, 271, 284, 324
Sheng Mai San Jia Jian, 260
Sheng Mai San Jia Wei, 324
Sheng Ya Tang, 215
Shi Guo Ji Jian Tang, 16
Shi Wei Wen Dan Tang Jia Jian, 181
Sha Gan Jiang Tang Tang, 118, 120, 362
Shuang Huang Lian Fen Zhen Ji, 230
Shuang Jie Jiang Tang Jing San Hao, 80
Si Huang Gao, 247-248, 255, 304, 316
Si Jin San, 302
Si Jun Zi Tang, 189, 312, 32
Si Miao San Jia Wei, 297, 320
Si Miao Yong An Tang, 229, 231, 361
Si Ni Jia Ren Shen Tang Jia Wei, 127, 133
Si Ni San, 123, 184, 231, 259, 298
Si Ni San Jia Jian, 184, 231, 298
Si Wu Tang Jia Wei, 50, 123, 223
Si Wu Xiao Feng San Jia Jian, 310
Su He Xiang Wan, 136-137, 272
Su Xiang Hua Zao Fang, 88, 368
Suan Zao Gan Mu Fang, 48
Suo Quan Wan, 49

T

Tang Ma Qing, 161, 366
Tang Zu Yin, 226, 286, 361
Tao He Cheng Qi Tang Jia Wei, 213
Tao Hong Si Wu Tang, 50, 167, 173, 177, 250, 244, 321
Tao Hong Si Wu Tang Jia Jian, 122
Tian Ma Gou Teng Yin Jia Jian, 140
Tian Ren Di Tang, 224
Tian Wang Bu Xin Dan, 84, 179, 259
Tian Wang Bu Xin Dan Jia Jian, 84, 179
Tiao Ba Shen Tang, 300
Ting Li Da Zao Xie Fei Tang, 263, 284
Tong Fa Hua Tan Tang Jia Jian, 272
Tong Xie Yao Fang Jia Wei, 194

Tu Si Zi Wan, 49
Tuo Li Xiao Du San, 229, 249
Tuo Li Xiao Du Yin Jia Jian, 254

W

Wen Dan Tang Jia Jian, 137, 142, 181, 316, 322
Wen Dan Tang Jia Wei, 87, 166, 181, 187, 202, 367
Wen Ge San, 12
Wu Ling San, 87, 243, 264, 283
Wu Mei Tang, 46
Wu Pi Yin, 283
Wu Shen Tang, 251
Wu Wei Xiao Du Yin, 90, 248, 304
Wu Wei Xiao Du Yin Jia Jian, 248, 304
Wu Wei Zi Tang Jia Jian, 178
Wu Zhi Yu Quan Wan, 46
Wu Zi Yan Zong Wan, 129, 301

X

Xi Jiao Di Huang Tang, 32, 229
Xi Xian Cao Tang Luo Ye, 209
Xiang Sha Liu Jun Zi Tang, 302
Xiao Chai Hu Tang, 341
Xiao Chuang Ye, 231
Xiao Ke Bi Tang Tang, 208, 363
Xiao Ke Fang, 83, 259, 361
Xiao Ke Ping, 143-145
Xiao Ke Tang, 88, 367
Xiao Ke Tang Luo Ye, 207, 220, 362
Xiao Ke Wan, 98, 120, 143-145, 315, 369
Xiao Luo Wan, 52
Xiao Tong Tang, 128
Xiao Xian Xiong Tang, 261
Xiao Yao San Jia Jian, 79, 82
Xiao Yao San Jia Wei, 202
Xie Huang San Jia Jian, 308
Xuan Bi Tang Jia Jian, 199
Xuan Fu Dai Zhe Tang, 128
Xue Fu Zhu Yu Tang, 49, 182
Xue Fu Zhu Yu Tang Jia Jian, 182

Y

Yang Gan Jiang Tang Tang, 119
Yang He Tang Jia Jian, 243
Yang Yin Qing Shen Tang, 298
Ye Ju Hua Da Tang, 247
Yi Guan Zi Shen Xiao Ke Yin, 47
Yi Guan Jian, 47, 84, 179, 188, 260, 303, 325
Yi Guan Jian Jia Wei, 188
Yi Qi Fu Yang Yin, 48
Yi Qi Fu Zheng Jie Du Tang, 225
Yi Qi Huo Xue Fang, 261
Yi Qi Jiao Nang, 234-235
Yi Qi Qing Shen Tang, 299
Yi Qi Yang Yin Gu Shen Tang, 288
Yi Qi Yang Yin Huo Xue Tang, 86, 207, 364, 324
Yi Qi Yu Yin Tong Lin Tang, 311-312, 315-316, 363
Yi Qi Yu Yin Tong Lin Tang Jia Wei, 315
Yi Qi Zhu Yu Tong Mai Tang, 205, 321
Yi Shen Huo Xue Fang, 162, 372
Yi Tang Tang, 45, 90, 173, 185, 190, 195, 204, 210, 213, 217, 220, 319, 321, 365, 366-367, 324
Yi Yu Tang, 213, 363
Yin Chen Hao Tang Jia Wei, 245
Yin Qiao San Jia Jian, 252, 293
You Gui Wan, 16, 182, 198, 232, 327
You Gui Wan Jia Jian, 182, 198, 232
You Gui Yin, 16, 48, 327
Yu Cun You Lu Mei Su, 230
Yu Lu Gao, 250
Yu Lu San, 55, 230
Yu Nu Jian, 43, 188, 309
Yu Nu Jian Jia Jian, 188
Yu Ping Feng San Jia Wei, 192
Yu Quan Wan, 46, 368
Yu Ye Tang, 46, 363

Z

Zeng Shi Jiao Nang, 160-161, 360
Zeng Ye Cheng Qi Tang, 261
Zeng Ye Tang, 82-83, 85, 112-113, 124-125, 132, 157, 231, 241
Zeng Ye Tang Jia Jian, 231
Zeng Ye Tang Jia Wei, 82, 132
Zhen Wu Tang, 180, 263, 283, 285, 362
Zhi Bai Di Huang Tang Jia Jian, 164, 166
Zhi Bai Di Huang Wan, 38, 44, 141, 149, 159, 198, 204, 244, 318
Zhi Bai Di Huang Wan Jia Wei, 141, 149, 198, 204
Zhi Bai Wu Bi Shan Yao Wan, 187
Zhi Gan Cao Tang, 259
Zhi Yang Ding, 246, 255
Zhu Ye Huang Qi Tang, 249
Zhu Ye Shi Gao Tang, 45, 248
Zhu Ye Shi Gao Tang Jia Jian, 248
Zi Shen Tong Guan Wan Jia Wei, 187
Zi Shui Cheng Jin Yin, 47
Zi Shui Qing Gan Yin, 48, 330, 332
Zi Shui Qing Gan Yin Jia Jian, 330, 332
Zi Yin Zhu Yang Fang, 48
Zuo Gui Wan Jia Jian, 198
Zuo Gui Yin, 16, 47

General Index

A

A Compilation of Acupuncture & Moxibustion, 54-55, 359
A New Compilation of Acupuncture & Moxibustion for Internal Medicine, 54, 359
A Study of Chinese Acupuncture & Moxibustion, 54, 56, 109, 359
A Study of Chinese Acupuncture & Moxibustion Prescription-writing, 54, 56, 109, 359
abdomen, purple striae on the, 320
abdominal distention, 79-82, 92, 96, 100, 108, 112-121, 137, 170, 172, 181, 186-187, 192, 197, 201, 211-214, 218, 241, 243, 265, 283, 290, 296-298, 301-302, 309, 320-321,
abdominal distention, postprandial, 170
abdominal distention, upper, 119, 211
abdominal distention and fullness, diurnal and, 118
abdominal muscle weakness, 170
abdominal pain, 8, 123-124, 127, 135-136, 189, 193
abdominal, sagging and distention, lower, 185, 210
abdominal tenderness, 7
abnormal leukocyte function, 221
abscesses, 13, 15,33, 53, 55, 90, 106, 256, 293, 304, 314, 360, 365
abscesses, welling, 33, 55, 256, 304, 314, 360, 365
acanthosis nigricans, 7
acarbose, 9, 347
ACE inhibitors, 139, 280, 334
acetylsalicylamide, 9, 347
ache, low back, 296
aching and pain, lower limb, 99, 199, 266, 314
aching and pain, on the anterior aspect of the lower limb, 223-224
aching and pain, on the lateral aspect of the lower limb, 223-224
aching and pain, on the medial aspect of the lower limb, 223-224
aching and pain, on the posterior aspect of the lower limb, 223-224
aching bones, 293
aching, pain and paralysis, lower limb, 99, 314
acid eructations, 187
acne, generalized, 320
acromegaly, 317, 321-322, 355
acromelic gangrene, 171, 221-223, 225-227, 229, 231, 233, 235, 361
Actos, 347
acupressure, 53-55, 267, 357
acupuncture, 53-56, 67, 77, 80-86, 88, 90-91, 93-94, 99-100, 103-104, 109, 112-115, 117-119, 125-127, 130, 132-133, 136-137, 140-142, 145, 148-151, 153, 157-159, 167, 173-175, 211-212, 223-226, 235, 13, 17-19, 244-246, 248-251, 253, 255, 260-261, 263-264, 270, 273-275, 277-278, 282-284, 293-303, 306, 308-311, 318-325, 330-332, 335, 337-339, 357-359, 362, 366, 370, 372, 375-377
acupuncture, scalp, 278
adherence, 57, 76, 139, 337-340
adolescence, 4
adrenal insufficiency, 7
adrenal medulla, 324
adrenalectomy, 321
aerobic dance, 75
aerobic exercise, 75-76
afternoon tidal heat, 295
agents, oral antihyperglycemic, 8
agitation, 23, 79, 82, 102, 106, 121, 126, 132, 140-141, 143, 179, 187-188, 201-202, 218, 245, 250, 261, 270, 272-273, 298, 302, 318, 325, 330, 335,
albuminuria, 61, 130, 166, 279-280, 284-285, 288, 290, 349, 362,

alcohol, 12-13, 62, 64, 70, 97-99, 122-125, 128, 135, 139, 142, 156, 214, 222, 228, 235, 242, 251, 254-255, 267, 270, 274, 281, 293, 314, 335-336, 22, 24, 355
alcoholism, 9, 208
Allen, Frederick Madison, 2
allergic reactions, 9, 320
allergy, 7, 9, 139, 348
alpha-lipoic acid, 67-68
alpha-hydroxy acids, 239
alternating cold and heat, 298, 302
altitudes, rapid ascent to high, 135
Amaryl, 347
American College of Sports Medicine, 75
American Diabetes Association, 7, 10, 58-59, 64, 73, 75, 77, 89, 139, 146-147, 267-268, 332-333, 350, 355, 375, 376
American Dietetic Association, 67
amitriptyline, 171
amputation, 9, 170, 222, 231, 238, 354
amputation, lower extremity, 222
amyotrophy, diabetic, 170
An Accumulation of the Finest [Points] of the Simple [Questions of] Spiritual [Axis], 16
Anderson, Bob, 77
An Examination & Assembly of Acupuncture & Moxibustion Medical Studies, 54, 358
anal prolapse, 192-193
anemia, pernicious, 2, 317
anion gap, elevated, 123
anger, cure, 82, 98, 118, 140, 143, 179, 187-188, 191, 201, 203, 245, 298, 302, 315, 318, 329-330, 335
angina pectoris, 257
angioedema, 9
angiography, fluorescein, 156
angioplasty, balloon, 221
anhidrosis, 170, 237-238, 241-242
anhidrosis, diabetic, 237-238
antidepressants, tricyclic, 171
antibiotics, 24, 28-29127, 171, 222, 227, 230-232, 234, 239, 253-254, 280, 284, 293, 312, 315-316
antibiotics, topical, 171, 239
antibodies, humanized, engineered monoclonal, 3
antithyroid drugs, 320
anuria, 133, 281, 283
anus, burning heat around the, 193
anxiety, 142, 172, 201, 217, 241, 329, 332, 353
apathy, 332
aphasia, 107, 271-274, 277
appetite, decreased, 85, 87, 189, 194, 203
appetite, great, 152
appetite, reduced, 15, 79, 185, 335
appetite, scanty, 87, 97, 117-118, 149, 263
Aretaeus, 1
arteries, absent pulses in the large and medium, 224
arteries, indistinct pulses in the large and medium, 223-224
arteries, weak pulses in the large and medium, 222, 224
arteriography, 135, 257
arteriosclerosis obliterans, 221-223, 225-227, 229, 231, 233, 235
arthritis, degenerative, 322
ascites, 118-119
asthma attacks, acute, 135
aspirin, 156, 171, 257, 277
atherogenic dyslipidemia, 9
atherosclerosis, 9, 147, 169, 221, 257, 269, 277-278, 280, 289, 334, 349-350, 352, 355-356
Atkins Diet, 66
Atkins, Dr. Robert C., 66
atrial fibrillation, 269, 277, 317
Attwood, Dr. Charles R., 67
auriculotherapy, 146, 267
autoimmune disease, 4-6, 29, 317
autoimmune polyglandular syndromes, 317
autonomic neuropathy, 77, 169-171, 178, 217, 248, 300, 349, 351
auricles, withered, 87
Avandia, 347
Avicenna, 2

B

Banting, Frederick, 3
Banting Award, 333
barrel chest, 322
Barton, Moses, 3
becaplermin gel, 171
Becker, Simon, 319, 327, 325
Beijing Xiehe Hospital, 232
Ben Cao Gang Mu, 41
bending and stretching, inhibited, 127
benign prostatic hypertrophy, 6
Best, Charles, 3
beta cell destruction, 5
beta-blockers, 24, 77, 139, 324-325, 334, 352
betaxolol, 139
Bi Yu-an, 130, 359
Bian Que's Heart Book, 54
Bian Que Xin Shu, 54
Bian Zheng Bing An, 16
biking, 75-76
biofeedback, 146, 171
biotin, 68, 23

birth defect, 111
Bladder, incomplete emptying of the, 10, 187
Bladder, neurogenic, 185, 210-211, 220, 300, 364, 367, 371, 373
Bladder, residual urine in the, 170, 211, 212
Bland affect, 132, 136, 243
blindness, 4, 9, 26, 90, 155-156, 212, 252, 269, 277, 351, 356
blisters, suppurative, surrounded by a red halo, 247
blood flow, abnormalities in, 86
blood glucose, 1-4, 7-10, 17, 33, 39-41, 57-61, 65-68, 72, 75-77, 79-82, 88-94, 96-106, 108, 111-112, 119-123, 127-130, 135, 143-145, 151, 155-156, 164, 171, 208, 211-214, 218-219, 252, 254, 265-267, 275-277, 280, 286-290, 312, 314, 320, 326, 329, 332-333, 335, 338-340, 342, 347-356, 368, 370
blood glucose, elevated, 4, 7, 123, 135, 286, 353, 79-80, 88
blood glucose, fasting, 7, 58, 88-89, 91, 94, 99-101, 103-104, 111, 119-120, 128, 143, 151, 211, 213, 218-219, 252, 265-266, 276-277, 289-290, 312, 314, 326, 335, 339, 353
blood glucose levels, 1, 7-9, 58-59, 62, 65-66, 68, 75, 77, 102, 111, 119-120, 135, 155, 212, 267, 280, 290, 312, 326, 329, 332-333, 339-340, 350-352, 354-355
blood glucose monitoring, 8, 76, 355
blood, hacking, 37, 295
blood platelets, 155
blood platelet aggregation, increased, 86, 106
blood pressure, 6-7, 10, 24, 41, 58, 61-62, 64, 75-76, 82, 86, 96-97, 101-103, 112, 114-115, 123, 127, 131, 135, 139, 142-146, 151-152, 180, 214-215, 221, 229, 253, 244, 258, 267, 269, 274, 276, 280-281, 288, 291, 298, 320, 331-332, 334, 338-339, 349, 352, 355
blood pressure, decreased, 7, 221
blood pressure, high, 6, 41, 61-62, 82, 86, 97, 112, 114, 139, 146, 151, 229, 267, 274, 291, 298, 320, 352, 355
blood pressure, low, 127, 131, 180, 274
blood sizes, 15, 17-18, 21-23, 28, 31, 40-41, 49-51, 55, 81, 86, 88, 90, 92, 105-107, 115, 118, 120-121, 124-125, 132, 142, 144-145, 147-150, 157-159, 163, 166-167, 172-178, 181, 183-186, 188-189, 191, 197-201, 206-207, 213, 215, 217, 219-220, 222-223, 225-228, 231-233, 235, , 240, 242, 258-259, 261-262, 264-265, 270-275, 281-282, 285-286, 289-291, 298-299, 301-303, 319-320, 323, 331, 337, 364, 368-370, 374, 326
blood urea nitrogen, 8, 289, 350, 355
blood vessel permeability, 155
Bloom syndrome, 5
bodily emaciation, 12, 80, 100, 105, 285
body mass index, 89, 111
body, emaciated, 141, 157, 166, 183, 191, 225, 295, 305
body odor, 322
body weight, ideal, 6, 58, 62, 354
body and eyes, yellowing of the, 112, 302
body, yellowing of the entire, 245
boils, 14, 95, 239, 241, 304
boils, multiply occurring, 304
boils and ulcers, 304
bones, steaming, 197, 304
borborygmus, 96, 98, 195
bradyarrhythmias, 135
brain, 27, 55-56, 86, 101, 123-126, 126, 132-133, 136-137, 201, 230, 269-270, 274-275, 329, 350-351, 355-356
breath, bad, 81, 83, 102, 191, 267, 272, 308-309
breath, fruity odor to the, 128
breath, shortness of, 113, 127, 135, 144-145, 148, 159, 172-173, 178, 180, 182-183, 185, 189, 191, 196, 203-204, 242-243, 258-260, 262-264, 266, 271-272, 281-283, 285, 290, 295, 318-319, 321-322, 324, 32, 85-87, 95, 97
breathing, distressed rapid, 127, 272
breathing, faint, weak, 324
breathing, panting, hasty, 295
breathing, panting, rapid, 294-295
Bright's disease, 2
bronchospasm, 9
bruising, easy, 320
Bu Xian-chun, 209, 219, 359
bullae, diabetic, 237-238, 241, 255
bullous diabeticorum, 237
bupivacaine, frequent, 301-303
bypass, jejuno-ileal, 135

C

C-peptide reactivity, 335
C-reactive protein, 6
cachexia, 203
caffeine, 62
calcemia, low blood, 112
calcium channel blockers, 123, 139, 151, 180
calories, 6, 280, 334, 350, 58-64, 75
cancer, 119, 135, 211, 355
Candida albicans, 24, 239
Cao Hai-fen, 72-73, 360
Cao Su-lan, 160, 360
capillary damage, 10
capsicum, 171
capsule, 119

"The Treatment of Diabetes Mellitus With Chinese Medicine is authoritative and comprehensive. It is a coherent and integrated presentation of the classical and modern understanding of one of the world's most common diseases. As such, this work represents a significant contribution to the modern clinical practice of Chinese medicine in the West, and will remain an exemplary work in the field for years to come."

—Bob Duggan, M.S., L. Ac.
Chair, Department of Clinical Practice
Pacific College of Oriental Medicine

"This comprehensive book offers a detailed synopsis of Chinese acupuncture and herbal therapy for the treatment of diabetes mellitus hitherto unavailable to Western readers. This text is without question unique in its extensive description of diabetes and its complications from the acupuncture and Chinese herbal point of view."

—Rudolf Helling, MD, Chairman, Physicians' Forum for Acupuncture, Germany

"The joining of Chinese and Western approaches offered in this book is to be called nothing less than excellent... As a Western MD, I can say the Western medical information on diabetes contained in this book is reliable, comprehensive, and up-to-date. As a clinician practicing Chinese medicine on a day-to-day basis, I can also say it is an outstanding text on the Chinese medical view of diabetes... In a nutshell, this book is a valuable contribution to the world's medical literature. Congratulations!"

—Dieter Klein, MD acupuncturist, Germany

"The authors clearly recognize that only a combination of Eastern and Western medicines can truly be effective in treating this disorder. To that end, they have also included the latest research correlating a variety of physiological and biochemical parameters with the TCM patterns of DM. With doctoral studies about to be launched at TCM schools in the U.S., this book sets a new standard for an integrative approach to holistic medicine. I hope others will follow the lead of Blue Poppy in the development of TCM for the 21st century in America."

—Todd Logen, L.Ac.
Director, Chinese Herb Academy

"This book is an excellent review of the approach to the treatment of diabetes mellitus from both a Chinese and Western medicine perspective. The review of current conventional integrative nutritional and lifestyle approaches is of value both to the conventional and alternative practitioner. The acupuncturist will find this an indispensable guide to the treatment of diabetes mellitus itself and its complications using acupuncture and Chinese herbal formulations."

—Leonard A. Wisneski, M.D., F.A.C.P.
Endocrinology, Metabolism, and Medical Acupuncture Clinical Professor of Medicine
The George Washington University Medical Century

This book is an excellent representation of the latest evolution of TCM texts. It provides essential material for pattern differentiation and treatment strategy for patients with diabetes. Treatment protocols, strategies, and outcomes are outlined in a manner that enables the reader to manage this disease confidently and responsibly with Chinese medicine. The authors were meticulous in providing references to all formulas and research listed in this book, thereby, making it an invaluable resource book for all TCM practitioners."

—John Shaw, DTCM, Reg. Ac. (Canada) CEO, Eastern Currents

ISBN 1-891845-03-7