

TREATING CHRONIC INFLAMMATION IN CARDIOVASCULAR DISEASES

Combining Functional Medicine with Traditional Chinese Medicine

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2:20 – 4:00	Functional Medicine: Physiology and Etiology of Cardiovascular Disease
4:00 – 4:20	[Break]
4:20 – 6:00	TCM Etiology and Treatment of Cardiovascular Disease (p. 12)

Cardiovascular disease, leading to heart attack and stroke, is the leading cause of death in the developed world. In today's lecture, we will detail the physiology and etiology of cardiovascular disease according to modern functional medicine, and the effects of diet and lifestyle. We will then discuss important nutritional supplement treatments and interventions. The key contribution here is the importance of inflammation on heart disease, not just the accumulation of blood lipids.

In the second half, we will discuss how Traditional Chinese Medicine addresses cardiovascular disease in its clinical presentation of Thoracic *Bi* Syndrome. Various differentiations and treatment with Chinese herbal medicines will be presented. In most cases, patients can avoid pharmaceutical control with statins and blood thinners that may have a negative affect on one's health.

A. CARDIOVASCULAR DISEASE (CVD) IN FUNCTIONAL MEDICINE

1. Cardiovascular disease (heart attack and stroke) top killer in US

- a. 80 million affected
- b. Mortality: 865,000/year
 1. 65% is after age 75
 2. 20% age 65-75
 3. 15% before age 65
- c. Causes
 1. Chronic inflammation affecting blood vessels
 - a. From free radical oxidation affected lipids
 - b. From compromised small intestine gut permeability (Leaky Gut Syndrome)
 2. "Combined Hyperlipidemia"
 - a. Condition that shows ↓HDL; ↑LDL; ↑triglycerides
 - b. 20% of people who develop CHD before age 60 have this pattern

2. Causes

a. Risk factors for CVD

1. Systemic inflammation
2. Smoking
3. Cholesterol
4. Obesity
5. Diabetes -2 / Metabolic syndrome
6. Adrenal fatigue coupled with stress

b. Effects of inflammation

1. CVD requires a combination of bad blood fats and blood vessel epithelia inflammation
2. As inflammation is repaired, low-density cholesterol, combined with macrophage debris, is enmeshed in the repair, causing soft plaque
3. Soft plaque can break off and cause embolism in coronary or cerebral blood vessels
 - a. Hard established plaque will not break off
 - b. Think of scar tissue (old) versus a scab (new)
4. Heart attack due to stenosis alone accounts for 15% of heart attacks
 - a. 85% is from soft plaque breaking off
5. Origin of plaque requires inflammatory agents coming from within

c. Causes of inflammation

1. Excess fats (stored in tissue or in blood as triglycerides)
 - a. Release free radicals (oxidative stress) which injures epithelia
 - b. Free radicals also oxidized lipids, contributing to clots
 - c. Stimulate release of inflammatory cytokines
2. Excess blood insulin
 - a. Highly inflammatory
 - b. Insulin acts like a solvent, telling cell walls to open up so as to transport insulin and other nutrients into cell, while allowing cellular debris to exit the cell
 - c. Levels should be below 4 about 1-2 hrs after eating
 - d. Accounts for high heart disease in diabetics, who have chronically elevated insulin due to injections
3. Environmental toxins, including heavy metals, chemicals
 - a. These cause oxidative stress (free radical damage)
4. Microbial agents
 - a. Chlamydia can induce inflammation
 - b. Other microbes under consideration
 1. Clostridium, h. pylori, cytomegalovirus, periodontal infections
5. Chronic gut inflammation (Leaky Gut Syndrome)

- d. **Treatment** should focus on inhibition of inflammation as well as reduction of LDL and triglycerides

e. The Inflammatory cascade

1. Inflammation starts with cytokine release
 - a. IL-1, IL-6, TNF
 1. Secreted by endothelium, leucocytes, macrophages
 - b. IL-6 is inflammatory, until turned off by IL-10
 1. Low IL-10 is due to adrenal stress
 2. Stimulate liver to release fibrinogen
2. Formation of clots
 - a. Cytokines trigger adhesion molecules
 1. Stimulate liver to release fibrinogen
 - b. Attracts leucocytes and platelets
 - c. Allows lipid deposition into repair
 - d. Leads to atherosclerosis
3. Cholesterol
 - a. If cholesterol (either HDL or LDL) becomes oxidized due to inflammation, it creates plaque
 - b. If inflammation is under control, cholesterol cannot create plaque

3. Cholesterol and Triglycerides

a. Recommended levels of cholesterol

1. Total cholesterol: < 200 mg/dL (higher risk: >240)
2. HDL (high density lipoproteins): >45 (higher risk: <35)
3. LDL (low density lipoproteins): <130 (higher risk: >160)

b. Cholesterol

1. Used for membrane formation
 - a. Keeps membrane soft and porous (permeable)
 - b. Aids myelin sheath around nerves
2. Required for steroid hormone production
 - a. Cholesterol > pregnenolone > cortisol
 - b. Cholesterol lowered by statins inhibits cortisol production
3. All animal fats contain some cholesterol
 - a. Animal source cholesterol not significant in raising total blood cholesterol levels
 1. Includes cheese, egg yolks, beef, pork, poultry and shrimp
 2. Reduction in animal products results in increase of liver making cholesterol, so doesn't reduce blood cholesterol significantly

c. HDL (high density lipoproteins)

1. Function is to transport cholesterol and triglycerides from arteries and tissues back to liver for recycling or excretion
2. Known as "good cholesterol"
3. Low levels are indicator of higher risk for heart disease

- a. Probably best marker for real risk of heart attack
 - 1. More important to raise HDL then to lower LDL
- 4. Laboratory levels:
- 5. To raise HDL:
 - a. Aerobic exercise
 - b. Weight loss
 - c. Moderate amounts of alcohol
 - 1. Liver asks for more HDL to protect membranes
 - d. Medical Px: Fibrates
 - 1. Statins do no raise HDL
 - e. Niacin (nicotinic acid – B3)
 - 1. Reduces LDL and raises HDL
 - 2. Reduces triglycerides
 - 3. Pharmacological niacin 1-3 g. increases HDL by 10-30%
 - a. Must contain free nicotinic acid, not niacinamide
 - 1. “No flush” or “sustained release” OTC niacinamide does not work
 - b. Non-Px that is pharmaceutical grade: Niavasc (Xymogen)
 - f. Fish oil raises HDL
- 6. Dr. Jack Kruse on HDL
 - a. High HDL is a good marker of liver function and good health in general
 - b. HDL binds to inflammatory endotoxins to protect us from oxidation
 - c. Cholesterol production elevates to deal with gut inflammation
 - d. The link between cholesterol and heart disease is if cholesterol gets oxidized in the blood by free radicals due to inflammation
 - 1. The key is to control inflammation, not total cholesterol

d. LDL (low density lipoproteins)

- 1. Function is to transport cholesterol and triglycerides from liver and intestines to peripheral tissue
 - a. Cell membranes create LDL receptors so cholesterol can be transported into and absorbed
- 2. Inverse to HDL
 - a. When one is higher, the other is lower
- 3. Higher levels are associated with CHD. Mechanism:
 - a. Arterial epithelial cells attract LDL
 - b. With inflammation in the artery wall:
 - 1. Small dense cholesterol is trapped in repair of tissue
 - 2. Macrophages engulf excess LDL particles and further inflammatory response
 - c. LDL becomes dangerous if it becomes oxidized due to chronic inflammation
 - d. Clots are formed > embolism, stroke or heart attack
- 4. Lowering LDL

- a. Medical Px: high LDLs are treated with statins
 - 1. MDs recommend statins if LDL is > 130 mg/dL
 - 2. People with good inflammatory markers and no other risk factors can wait even until >190
 - b. Fish oil lowers LDL
 - c. CoQ10 reduces LDL oxidation
 - 1. This oxidation is the inflammatory stress that leads to atherosclerosis
5. Dr. Jack Kruse on LDL
- a. More important to raise HDL then lower LDL
 - 1. If LDL drops below 200 (as is often done with statins), can interfere with cellular reproduction, and lead to cancer
 - b. LDL not risky if large fluffy type
 - c. LDL necessary to make pregnenolone and then cortisol
 - d. Real problem, is LDL oxidation (“oxidized plasma”)
 - e. Key is to reduce cytokines in blood
 - f. Most inflammation/oxidation comes from leaky gut
 - g. Paleo diet best for reducing inflammation and normalizing blood lipids

e. Triglycerides

- 1. Most abundant fat in the blood stream and tissues
 - a. Excess calories are converted to triglycerides
- 2. Production of triglycerides:
 - a. Storage of excess refined carbohydrates and alcohol
 - b. Circulates in blood vessels
 - c. Any excess glucose is sent back to liver and converted to glycogen
 - d. Excess glycogen is sent back to the liver where it is converted into triglycerides
 - e. Triglycerides are stored as fat, or circulate in blood
- 3. Higher levels correspond with greater likelihood of heart attack, stroke and atherosclerosis
- 4. Major component of belly fat
 - a. This can act as reservoir of chronic inflammation
 - b. Major risk factor for heart disease
- 5. Usually indicative of Metabolic Syndrome
 - a. Excess blood glucose
 - b. Insulin resistance
- 6. Levels:
 - a. Testing must be done with at least 8 hrs of fasting
 - b. Normal 50-150 mg/dL
 - c. Optimal: 70-80
 - d. High: > 200
 - e. Dangerous: >500
- 7. Causes:

- a. Diets high in sugars, refined carbohydrates and alcohol
- b. Insulin resistance
- c. Low thyroid
- 8. Treatments
 - a. Dietary caloric restriction, especially refined carbohydrates, sugars and alcohol
 - b. Exercise – enough to burn up the fats
 - 1. 45-60 minutes of sweating exercise, 3- 4 x week
 - c. Omega 3, 2-3g a day
 - 1. Fish oil
 - 2. Flax seed oil, less effective
 - d. Vitamin C, 1-2 g. per day
 - e. Reduced CoQ10 (ubiquinol)
 - f. Niacin (nicotinic acid)
 - g. Medical Px:
 - 1. Fibrates, or Statins plus Fibrates (Tricor, Lipid)
 - a. The combined approach has many side effects
 - b. If you lower cholesterol too much, cell membranes are jeopardized
 - c. Lowers cortisol production
 - d. Will lower CoQ10 levels
 - 2. Glucophage (Metformin)

4. The Process of Atherosclerosis

a. Excess of oxidized LDL

- 1. Excessive plasma levels of LDL leads to some accumulating in tunic intima (the innermost layer of an artery or vein)
- 2. Fatty acids in LDL undergo oxidation
 - a. This is due to chronic inflammation
- 3. Oxidized LDL is not recognized in intima, becomes plaque
 - a. Macrophages produce and induce endothelial cells to produce IL-6, TNF and IL-1
 - b. This stimulates endothelial cells to produce adhesion molecules
 - c. Macrophages increase and engulf oxidized LDL
- 4. Monocytes, macrophages, endothelial cells and smooth muscle cells secrete chemokines (small cytokines) to form fibrous accumulation (“fibrous cap”)
 - 1. This accumulates as plaque

b. Direct effects of cytokines towards heart failure

- 1. The inflammatory model is considered the underlying pathology of heart failure
 - a. TNF and IL-6 are elevated in proportion to severity of heart failure
 - b. Raise IL-6 can affect pulmonary and ventricular functions of the heart

c. Effect of Hormones

1. The following contribute to heart disease:
 - a. Low testosterone
 - b. Low estrogen
 - c. Low thyroid
 1. T3 converts excess LDL to pregnenolone
 - d. Low Vitamin D
 - e. Elevated cortisol
2. All of these correlate with elevated leptin (leptin resistance)
 - a. Hormone made by fat cells that regulates fat storage
 - b. This means that excess weight can cause all of these hormone irregularities, and is a major contributor to heart disease

5. Other Important Lab Markers for CVD Risk

a. Fibrinogen

1. A soluble plasma glycoprotein, synthesized by the liver, that is converted by thrombin into fibrin during blood coagulation
 - a. Involved in clot formation
 - b. Binds to LDL and converts to fibrin mesh
 - c. This decreases blood flow and allows platelet aggregation
2. Elevates with inflammation
3. Blood levels
 - a. Normal: 193-423 mg/dl
 - b. Optimal: 200-300
4. Effective therapies: fish oil, Nattokinase, niacin, beta carotene, B12, 6, aspirin

b. Highly sensitive C-reactive protein (hs CRP)

- a. It's an acute-phase reactant
 1. Produced in liver during inflammation
 2. It further facilitates production of cytokines
 3. This promotes ruptures of plaque
 - a. Plaque ruptures cause 55% of heart attacks
 4. Excellent over-all marker for systemic and dangerous inflammation
- b. Elevates in various illnesses
 1. Heart disease and stroke
 2. Diabetes
 3. Leaky Gut Syndrome
 4. Hypertension
 5. Depression
 6. Increased Alzheimer's risk
- c. Normal CRP test not specific for heart
 1. Elevations can be inflammation anywhere in body
 2. Ask for hs-CRP
- d. Lab range
 1. Normal: 0-3 mg/L

2. Optimal: Men: <0.55 mg/L; women, <1.5 mg/L

c. Erythrocyte sedimentation rate (ESR, Sed rate)

- a. Rate at which red blood cells precipitate in a period of 1 hour
- b. Acts as a non-specific marker for inflammation
- c. Governed by balance between pro-sedimentation factors, mainly fibrinogen, and factors resisting sedimentation, namely the negative charge of the erythrocytes
- d. When an inflammatory process is present, the high proportion of fibrinogen in the blood causes red blood cells to stick to each other

d. Homocysteine

- a. A sulfur amino acid
 - 1. Precursor of cysteine, which creates glutathione
 - a. The major liver detoxifier
 - b. Required for phase 1 and 2 liver detox
 - 2. Homocysteine converts to cysteine (which converts to glutathione), and elevated when this conversion does not take place
- b. Elevated levels of homocysteine linked to cardiovascular disease
 - 1. Elevated levels associated with plaque build-up
 - a. Causes endothelial dysfunction and damage
 - b. Attracts LDL and blood particles to form scab
 - 2. Elevates in systemic inflammation
- c. Elevations also due to compromised liver detox (phase 2, methylation process)
 - 1. Also elevates due to common genetic defect of 5-MTHFR
 - 1. These patients need methylated folic acid and methylated B6
- d. Can be lowered with folic acid, B6 and B12
- e. Reference ranges:
 - 1. Normal, men: 4.3-15.3 umol/L; women: 3.3-11.6 umol/L
 - 2. Optimal: <7.2

e. Uric acid

- 1. Increased levels good marker for increased inflammation or oxidative stress
- 2. Lab Range
 - a. Normal: 4.0-8.0
 - b. Optimal: men, <5.9; women, <5.5

f. Other Markers

- 1. Heart Scan
 - a. Uses low radiation CT
 - b. Measures 4 heart arteries for calcium narrowing
 - c. Shows degree of plaque
 - 1. Does not differentiate soft plaque from hard plaque

- a. Only soft plaque is dangerous because it can break off
 - 2. More than 15% growth after one year indicates build-up soft-plaque, which is dangerous
- 2. Carotid Doppler
 - a. Measures narrowing on carotid gland with dopler ultrasound
- 3. Electro-Cardiogram (EKG)
 - a. Measures heart arrhythmias
 - 1. Risk for heart disease
- g. **“The Perfect Storm for Heart Disease”**
 - 1. High glucose
 - 2. Excess insulin
 - 3. Low free testosterone
 - 4. Low Vitamin D
 - 5. Excess LDL
 - 6. Low HDL
 - 7. Excess triglycerides
 - 8. Excess Fibrinogen
 - 9. Elevated C-reactive protein
 - 10. Excess homocysteine
 - 11. Hypertension
 - 12. Excess belly fat

6. Nutritional Therapies Against Soft Plaque and Heart Disease

- a. **Fish Oil**
 - 1. Fish oil contains Omega 3 fatty acids EPA and DHA
 - a. EPA = eicosapentaenoic acid
 - b. DHA = docosahexaenoic acid
 - c. These are precursors to eicosanoids which reduce inflammation
 - 2. Fish do not produce Omega-3 fatty acids, but accumulate them through the food chain, their origin being seaweed and micro-algae
 - a. Best source is sardines and anchovies
 - b. Larger fatty fish high in the food chain accumulate heavy metals and toxins
 - 3. Most effective treatment for cardiovascular disease
 - a. Study: 2.3 g reduces mortality rate 29% (without any other factor)
 - b. Beneficial to both high risk and low risk patients
 - c. Benefit at even 1 g. per day
 - 1. 2–4 grams is better, esp with marked inflammation
 - 2. Average American intake is < .2g/day
 - 4. Beneficial effects (based on research)
 - a. Reduces triglycerides
 - b. Reduces LDL cholesterol, raises HDL

- c. Reduces inflammatory agents
 - 1. DHA suppresses TNF, IL-1, IL-6
 - 2. Lowers plasma fibrinogen and CRP
- d. Regulates and soothes rhythmic beat of heart
- e. Enhances efficacy of statins

b. Niacin

- 1. Vitamin B3, nicotinic acid
 - a. Do not use niacidamide
- 2. In large doses can reverse atherosclerosis
 - a. It lowers the levels of LDL, VLDL, total cholesterol, triglycerides
 - b. Increases HDL
 - c. Recommended dose: 2000 mg a day
- 3. Side effects
 - a. Doses above 1.5 can induce facial flushing
 - 1. One gains tolerance within a short time
 - b. These doses are not recommended during pregnancy
 - c. May aggravate gout
- 4. “No-flush” niacin is actually inositol hexanicotinate
 - a. Does not have beneficial effects
- 5. Nicotinic acid is available as Px, and from Xymogen and Vital Nutrients

c. Vitamin D-3

- 1. Produced in skin with exposure to UV sunlight
- 2. Used by macrophages to fight microbes and pre-cancer cells
 - a. Activates killer T cells
 - 1. Will remain dormant without Vitamin D
 - b. Enhances natural killer (NK) cells
 - c. Produces antimicrobial cytokine
- 3. Low levels associated with blood clots
- 4. Recommended dosage: 5000 iu a day
 - a. Human body can make up to 20,000 mg a day

d. Coenzyme Q-10

- 1. Created in cell mitochondria
 - a. Helps generate ATP energy in mitochondria
 - b. Helps neutralize free radical damage
- 2. Beneficial in cardiovascular disease
- 3. Depleted by statin medicines
 - a. Necessary to supplement patients on statins
- 4. Use reduced CoQ10: Ubiquinone
- 5. Dosage: 50-150 mg/day

e. Folic Acid

- 1. Vitamin B9
- 2. Decreases homocysteine levels

- a. High levels of homocysteine damage coronary arteries and form clots
- 3. Level: 800 mcg/day

f. **Nattokinase**

- 1. An enzyme extracted and purified from Natto, a food made from fermented soybeans
- 2. Japanese observes clot-busting effects similar to aspirin
- 3. Caution when combining with aspirin

g. **Vitamin C**

- 1. Lowers levels of C-reactive protein
- 2. Prevents oxidation of LDL
- 3. Dose: 1-2 g/ day

7. Pharmaceutical Therapies

a. **Statins (HMG-CoA reductase inhibitors)**

- 1. Reduces cholesterol by inhibiting the enzyme HMG-CoA reductase
 - a. This plays a central role in the production of cholesterol in the liver
- 2. Lowers heart attack risk by 60%
- 3. Lowers stroke risk by 17%
- 4. By 2003, Lipitor was the best-selling pharmaceutical medicine in history
- 5. Statins have been linked to causing cancer
- 6. Deplete CoQ10
- 7. Common Px Statins
 - a. Atorvastatin (Lipitor, Pfizer)
 - 1. Best selling Px in history
 - 2. Also available as Torvast
 - b. Lovastatin (Mevacor, Altocor, Altoprev)
 - c. Rosuvastatin (Crestor)
 - d. Simvastatin (Zocor, Lipex)
- 8. Adverse reactions
 - a. Elevated liver enzymes
 - b. Myalgia or muscle cramps
 - c. If you lower cholesterol too much:
 - 1. Cell membranes lose potential permeability
 - 2. Reduces conversion to pregnenolone and cortisol
 - d. Will lower CoQ10 levels
 - e. Associated with higher levels of cancer

b. **Fibrates**

- 1. Tricor, Lipid, etc.
- 2. Increases HDL, lowers triglycerides
- 3. Improves insulin resistance

4. Not shown to reduce total death rate, but does reduce total number of heart attacks
5. Often combined with statins
 - a. The combined approach has many side effects

c. **Aspirin**

1. Reduces platelet aggregation
 - a. Inhibits the production of thromboxane, which binds platelet molecules together
 - b. Creates a patch which covers damage to blood vessel walls
2. Recommended dose: 81 mg/day

B. TCM TREATMENT FOR CARDIOVASCULAR DISEASE

Source texts:

Practical Therapeutics of Traditional Chinese Medicine,
Wu and Fischer, Paradigm Publications, 1997

Traditional Chinese Treatment for Cardiovascular Diseases
Hou Jinglun, editor, Academy Press, Beijing, 1995

1. Overview

- a. Modern hospital TCM tends to look at CVD once major heart symptoms develop
 1. Chest pain
 2. Heart attack
 3. Arrhythmia
- b. Heart disease is induced by myocardial ischemia in atherosclerosis
- c. Includes:
 1. Sudden acute cardiac arrest
 - a. Myocardial infarction
 2. Angina pectoris
 3. Progressive heart failure due to coronary heart disease
 4. Arrhythmia
- d. Risk factors
 1. Hypertension
 2. Hyperlipidemia
 3. Diabetes
 4. Cigarette smoking
- e. TCM Categories
 1. Congestive heart failure is included in Thoracic *Bi* Syndrome
 2. TCM diseases include:
 - a. *xiōng bì* (胸痹)– chest oppression (obstruction of qi in chest)
 - b. *xiōng tòng* (胸痛)– chest pain
 - c. *jué xīn tòng* (厥心痛– heart pain with cold limbs
 - d. *zhēn xīn tòng* (真心痛– Myocardial infarction (“true heart pain”))
- f. TCM etiology of Thoracic *Bi* Syndrome

1. Deficiency and excess coexisting
 - a. Located in heart (as excess) but rooted in spleen and kidney deficiency
 - b. Doctors should evaluate priority of excess versus deficiency
 - c. Deficiency symptom-complexes include depleted *yin*, *yang*, *qi*, and blood
 - d. Excess symptom-complexes include *yin* cold, phlegm-turbidity, and blood stasis
2. The etiology includes
 - a. Invasion by pathogenic cold
 - b. Improper diet and eating habits
 - c. Emotional stress
 - d. Frail constitution with old age

2. Western Medicine Perspective

- a. Angina pectoris
 1. Caused by transient myocardial ischemia due to decreased coronary flow
 2. Symptoms
 - a. Episodic retrosternal pain
 - b. Sense of chest oppression
 3. Types
 - a. Transient attacks of chest pain
 - a. Exacerbated with exertion, heavy meal, emotion
 - b. Pain lasts 1-5 minutes
 - c. Relieved with rest or nitroglycerin tablets
 - b. Spontaneous angina
 - a. Not related to exertion
 - b. Attacks last longer than transient attack
 - c. Not responsive to nitroglycerin
 4. Diagnosis
 - a. EKG (electrocardiogram) taken with treadmill stress
 - a. Limited diagnostically
 - b. (Cardiolite injection stress test)
 - c. Coronary arteriography (angiogram)
 - a. Invasive procedure that takes fluoroscopic pictures to see blockages in coronary arteries
 - b. Most precise test
- b. Myocardial infarction
 1. Myocardial necrosis due to severe and chronic ischemia
 2. May be complicated by arrhythmia and heart failure
 3. Symptoms
 - a. Acute retrosternal persistent pain with chest oppression
 - b. Profuse sweating, anxiety, pallor
 4. Signs
 - a. Lowered blood pressure

b. Blood work confirms elevations in enzymes (CPK) and SGOT

HERBS COMMONLY USED IN TREATING CARDIOVASCULAR DISORDERS

- AA Tonify Qi** (*bǔ qì* 补气)
dǎng shēn (党参), Radix Codonopsis
gān cǎo (甘草), Radix Glycyrrhizae
huáng qí (黄芪), Radix Astragali
rén shēn (人参), Radix Ginseng)
- AD Tonify Yin** (*bǔ yīn* 补阴)
mài mén dōng (麦门冬), Radix Ophiopogonis
shú dì huáng (熟地黄), Radix Rehmanniae Praep.
- D Clear Heat** (*qīng rè* 清热)
huáng lián (黄连), Rhizoma Coptidis
mǔ dān pí (牡丹皮), Cortex Moutan
xuán shēn (玄参), Radix Scrophulariae)
- E Warm Interior** (*wēn lǐ* 温里)
gān jiāng (干姜), Rhizoma Zingiberis
ròu guì (肉桂), Cortex Cinnamomi
zhì fù zǐ (炙附子), Radix Aconiti Lateralis Praep.
- M Open Orifices** (*kāi qiào* 开窍)
shí chāng pú (石菖蒲), Rhizoma Acori Tatarinowii
yuǎn zhì (远志), Radix Polygalae)
- K Invigorate Blood, Dissolve Stasis** (*huó xuè huà yā* 活血化瘀)
chì sháo (赤芍), Radix Paeoniae Rubra
chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong
dān shēn (丹参), Radix/Rhiz. Salviae Miltiorrhizae
hóng huā (红花), Flos Carthami
jiāng huáng (Rhizoma Curcumae Longae)
táo rén (桃仁), Semen Persicae
tián qī (田七), Radix/Rhizoma Notoginseng
yù jīn (郁金), Radix Curcumae)

TCM DIFFERENTIATIONS FOR THORACIC BI SYNDROME

1. Obstruction of Heart by Blood Stasis
2. Obstruction by Phlegm Turbidity
3. Accumulation of *Yin* Cold
4. Deficiency of Heart and Kidney *Yin*
5. Deficiency of *Qi* and *Yin*
6. Exhaustion of *Yang Q*

1. OBSTRUCTION OF HEART BY BLOOD STASIS

Clinical Manifestations: Stabbing chest pain of fixed location, pain more severe at night, periodic spells of palpitation

Tongue: Dark, purple

Pulse: Deep, rough

Therapeutic Method: Invigorate blood, dissolve stasis, relieve pain

Prescription:

XUE FU ZHU YU TANG

Formula: *xuè fǔ zhú yú tāng* (血府逐瘀汤), “Blood Mansion Drive-Out Stasis Decoction”

Author: Wáng Qīng-Rèn (王清任)

Source: *Yī Lín Gǎi Cuò* (医林改错), 1830

Literal: “Physicians’ Circle, Correction (of) Errors”

Availability:

BLOOD PALACE FORMULA (GF)

DRIVE OUT STASIS IN THE MANSION OF BLOOD FORMULA (HS)

PERSICA & CARTHAMUS COMBINATION (EG)

STASIS IN THE MANSION OF BLOOD (PF)

XUE FU ZHU YU TANG (BP)

XUE FU ZHU YU WAN (HT, TL)

BLOOD’S MANSION (AL)

RED STIRRING (TT)

UPPER PALACE TABLETS (SF)

Ingredients: (from the standardized “Persica & Carthamus Combination”)

<i>táo rén</i> (桃仁), Semen Persicae	16 %	K
<i>dāng guī</i> (当归), Radix Angelicae Sinensis	12	AB
<i>shēng dì huáng</i> (生地黄), Radix Rehmanniae	12	DC
<i>hóng huā</i> (红花), Flos Carthami	12	K
<i>chuān niú xī</i> (川牛膝), Radix Cyathulae	12	K
<i>zhǐ ké</i> (枳壳), Fructus Aurantii	8	G
<i>chì sháo</i> (赤芍), Radix Paeoniae Rubra	8	K
<i>jié gěng</i> (桔梗), Radix Platycodonis	6	CA
<i>chuān xiōng</i> (川芎), Rhizoma Ligustici Chuanxiong	6	K
<i>chái hú</i> (柴胡), Radix Bupleuri	4	BB

<i>gān cǎo</i> (甘草), Radix Glycyrrhizae	4	AA
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Modifications:

In cases of severe chest pain, modify to invigorate blood, regulate *qi*, and relieve pain. Add:

<i>jiàng xiāng</i> (降香), Lignum Dalbergiae Odoriferae	6	K
<i>yù jīn</i> (郁金), Radix Curcumae	9	K
<i>yán hú suǒ</i> (延胡索), Rhizoma Corydalis	9	K

Acupuncture:

Main points: Needle with reduction

CV 17 *Shanzhong*

CV 14 *Juque*

BL 15 *Xinshu*

BL 17 *Geshu*

HT 6 *Yinxi*

For purple tongue and cyanotic lips, bleed:

LU 11 *Shaoshang*

HT 9 *Shaochong*

PC 9 *Zhongchong*

2. OBSTRUCTION BY PHLEGM-TURBIDITY

Clinical Manifestations: Sensations of chest congestion and pain in the chest, shortness of breath, rapid respiration, heaviness of the limbs, overweight, excessive phlegm

Tongue: Muddy, greasy coating

Pulse: Slippery

Therapeutic Method: Invigorate *yang*, dispel phlegm-turbidity

Prescription:

GUA LOU XIE BAI BAN XIA TANG

("Trichosanthes, Allium, Pinellia Decoction")

<i>guā lóu</i> (瓜蒌), Fructus Trichosanthis	12 g	CB
<i>xiè bái</i> (薤白), Bulbus Allii Macrostemi	9 g	G
<i>jiāng bàn xià</i> (姜半夏), Rhizoma Pinelliae Praep.	12 g	CA
<i>bái jiǔ</i> (白酒), White wine	50 cc	

Modifications: To reinforce the effects of invigorating *yang* and dispelling phlegm-turbidity, add:

<i>jiàng xiāng</i> (降香), Lignum Dalbergiae Odoriferae	6 g.	K
<i>yù jīn</i> (郁金), Radix Curcumae	9	K
<i>yán hú suǒ</i> (延胡索), Rhizoma Corydalis	9	K
<i>gān jiāng</i> (干姜), Rhizoma Zingiberis	6	E
<i>chén pí</i> (陈皮), Pericarpium Citri Reticulatae	9	G

bái dòu kòu (白豆蔻), Fructus Amomi Kravanh

6

FB

Acupuncture: needle with reduction

CV 14 *Juque*

CV 17 *Shanzhong*

PC 4 *Ximen*

LU 9 *Taiyuan*

ST 40 *Fenglong*

For pain radiating through to the back, add cupping to the following points:

BL 13 *Feishu*

BL 15 *Xinshu*

3. ACCUMULATION OF COLD

Clinical Manifestations: Chest pain radiating through to the back, aggravated by exposure to cold, with congestion of the chest, shortness of breath, palpitations, difficult respiration, inability to lie flat, pale complexion, cold extremities

Tongue: White coating

Pulse: Deep, thready

Therapeutic Method: Invigorate *yang*, disperse cold, relieve pain

Prescription:

Gua Lou Xie Bai Bai Jiu Tang ("Trichosanthes, Allium and White Wine Decoction ")

<i>guā lóu</i> (瓜蒌), Fructus Trichosanthis	12 g	CB
<i>xiè bái</i> (薤白), Bulbus Allii Macrostemis	9 g	G
<i>bái jiǔ</i> (白酒), White wine	50 cc	

Modifications: Add to the original prescription:

<i>zhì fù zǐ</i> (炙附子), Radix Aconiti Lateralis Praeparata	9 g	E
<i>guì zhī</i> (桂枝), Ramulus Cinnamomi	9 g	BA
<i>zhǐ shí</i> (枳实), Fructus Aurantii Immaturus	9 g	G
<i>dān shēn</i> (丹参), Radix/Rhiz. Salviae Miltiorrhizae	12 g	K
<i>tán xiāng</i> (檀香), Lignum Santali Albi	3 g	G

In cases of profuse phlegm-damp, presenting chest pain with coughing and expectoration of phlegm and mucus, the prescription is modified to promote movement of *qi* and dissolve phlegm.

Add:

<i>shēng jiāng</i> (生姜), Rhizoma Zingiberis Recens	9 g
<i>chén pí</i> (陈皮), Pericarpium Citri Reticulatae	9 g
<i>fú líng</i> (茯苓), Poria	12 g
<i>xìng rén</i> (杏仁), Semen Armeniacae	9 g

Acupuncture: needle with reduction; add moxibustion

BL 15 *Xinshu*

BL 14 *Jueyinshu*

PC 6 *Neiguan*

HT 5 *Tongli*

For cold extremities, add moxibustion to: BL 13 *Feishu*, BL 15 *Xinshu*

4. DEFICIENCY OF HEART AND KIDNEY YIN

Clinical Manifestations: Congestion and pain in the chest, palpitations, night sweating, irritability, insomnia, weak, aching lower back and legs, tinnitus, dizziness and vertigo

Tongue: Red with little coating, sometimes presenting petechiae

Pulse: Rough, thready

Therapeutic Method: Nourish heart and kidney *yin*, calm *shen*, relieve pain

Prescription:

ZUO GUI WAN

Formula: *zuǒ guī wán* (左归丸), “Left Restore Pill”

Author: Zhāng Jiè-Bīn (张介宾) *aka* Zhāng Jǐng-Yuè (张景岳)

Source: *Jǐng Yuè Quán Shū* (景岳全书), 1624

Literal: “Jing-Yue’s Complete Writings”

Availability:

CYATHULA & REHMANNIA FORMULA (EG)

LEFT-SIDE REPLENISHING TEAPILLS (PF)

REPLENISH THE LEFT (K)

ZHO KWEI PILLS (PM)

ZUO GUI WAN (BP, HT, PM, TL)

ZUO GUI YIN (BP, TZ)

* TRUE YIN FORMULA (GF)

Ingredients: (from the standardized “Cyathula & Rehmannia Formula”)

<i>shú dì huáng</i> (熟地黄), Radix Rehmanniae Praep.	23.0 %	AB
<i>shān yào</i> (山药), Rhizoma Dioscoreae	11.4	AA
<i>gǒu qǐ zǐ</i> (枸杞子), Fructus Lycii	11.4	AB
<i>shān zhū yú</i> (山茱萸), Fructus Corni	11.4	L
<i>tù sī zǐ</i> (菟丝子), Semen Cuscutae	11.4	AC
<i>lù jiǎo jiāo</i> (鹿角胶), Colla Cornus Cervi	11.4	AC
<i>guī bǎn</i> (龟板), Plastrum Testudinis/Chinemys	11.4	AD
<i>chuān niú xī</i> (川牛膝), Radix Cyathulae	8.6	K

Modifications:

To reinforce the effects of nourishing heart *yin* and calming *shen*, add:

<i>mài mén dōng</i> (麦门冬), Radix Ophiopogonis	12 g	AD
<i>wǔ wèi zǐ</i> (五味子), Fructus Schisandrae	6 g	L
<i>bǎi zǐ rén</i> (柏子仁), Semen Platycladi/Biotae	12 g	N
<i>suān zǎo rén</i> (酸枣仁), Semen Ziziphi Spinosae	12 g	N

In severe cases of chest pain, the prescription is modified to nourish the blood, clear the collaterals and relieve pain. Add:

<i>dāng guī</i> (当归), Radix Angelicae Sinensis	9 g	AB
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<i>dǎng shēn</i> (党参), Radix Codonopsis	12 g	AA
<i>chuān xiōng</i> (川芎), Rhizoma Ligustici Chuanxiong	6 g	K
<i>yù jīn</i> (郁金), Radix Curcumae	9 g	K

In cases of *yin* deficiency with *yang* rising, presenting dizziness and vertigo, and numbness of the tongue and extremities, the prescription is modified to nourish *yin* and quell *yang*

<i>hé shǒu wū</i> (何首乌), Radix Polygoni Multiflori	12 g	AB
<i>nǚ zhēn zǐ</i> (女贞子), Fructus Ligustri Lucidi	12 g	AD
<i>gōu téng</i> (钩藤), Ramulus Uncariae cum Uncis	9 g	O
<i>shí jué míng</i> (石决明), Concha Haliotidis	15 g	O
<i>mǔ lì</i> (牡蛎), Concha Ostreae	15 g	O
<i>biē jiǎ</i> (鳖甲), Carapax Trionycis/Amydae	18 g	AD

Acupuncture:

Main points: Needle with even reinforcement, even reduction

BL 15 *Xinshu*
 BL 23 *Shenshu*
 HT 6 *Yinxi*
 KI 3 *Taixi*
 CV 17 *Shanzhong*
 BL 17 *Geshu*

For insomnia, add: HT 7 *Shenmen*

5. DEFICIENCY OF BOTH *QI* AND *YIN*

Clinical Manifestations: Periodic congestion and dull pain in the chest, palpitations, shortness of breath, fatigue, sluggish speech, lusterless complexion, dizziness and vertigo, increase in severity of symptoms with physical exertion

Tongue: Reddish, sometimes with tooth impressions

Pulse: Weak, thready, or intermittent

Therapeutic Method: Tonify *qi*, nourish *yin*, relieve pain

Prescription: Combine *Sheng Mai Yin* with *Ren Shen Yang Ying Tang*

SHENG MAI SAN

Author: Lǐ Gǎo (李杲) aka Lǐ Dōng-Yuán (李东垣)

Source: *Nèi Wài Shāng Biàn Huò Lùn* (内外伤辨惑论), 1247

Literal: “Internal External Injury, Clarify False-Notions Discussion”

Availability:

GINSENG & OPHIOPOGON FORMULA (EG)
 GREAT PULSE TEAPILLS (PF)
 SHENG MAI FORMULA (GF)
 SHENG MAI SAN (BP)

Ingredients: (from Golden Flower “Sheng Mai Formula”)

<i>rén shēn</i> (人参), Radix Ginseng	37.5 %	AA
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<i>mài mén dōng</i> (麦门冬), Radix Ophiopogonis	37.5	AD
<i>wǔ wèi zǐ</i> (五味子), Fructus Schisandrae	25.0	L

Ingredients: (from Plum Flower “Great Pulse Teapills”)

<i>dǎng shēn</i> (党参), Radix Codonopsis	50.2 %	AA
<i>mài mén dōng</i> (麦门冬), Radix Ophiopogonis	33.3	AD
<i>wǔ wèi zǐ</i> (五味子), Fructus Schisandrae	16.5	L

Combine with:

REN SHEN YANG RONG TANG / YANG YING WAN

Formula: *rén shēn yǎng róng tāng* (人参养荣汤)

“Ginseng Nourish Luxuriant-Growth Decoction”

aka: yǎng yíng wán (养营丸), “Nourish *Ying-Qi* Pills”

Author: Imperial Medical Bureau (*tài yī jú*, 太医局);
revised by Chén Shī-Wén (陈师文)

Source: *Tài Píng Huì Mǐn Hé Jì Jú Fāng* (太平惠民和剂局方), 1078
Literal: “(Era of) Great Peace, Benefit People Harmonious Medicines,
Office (of) Formulas”

Availability:

Using the *Ren Shen Yang Rong Wan* formula:

GINSENG & REHMANNIA COMBINATION (EG)

GINSENG NOURISHING FORMULA (GF)

REN SHEN YANG RONG TANG (BP, TZ)

Using the *Yang Ying Wan* formula:

FU KE YANG RONG WAN (PM)

RENSHEN YANG YING WAN (PM)

YANG YING TEAPILLS (PF, PM)

The *Ren Shen Yang Rong Wan* formula:

Ingredients: (from the standardized “Ginseng & Rehmannia Combination”)

<i>bái sháo</i> (白芍), Radix Paeoniae Alba	12.0 %	AB
<i>shēng jiāng</i> (生姜), Rhizoma Zingiberis Recens	9.0	BA
<i>bái zhú</i> (白术), Rhizoma Atractylodis Macrocephalae	7.6	AA
<i>huáng qí</i> (黄芪), Radix Astragali	7.6	AA
<i>zhì gān cǎo</i> (炙甘草), Radix Glycyrrhizae Praep.	7.6	AA
<i>chén pí</i> (陈皮), Pericarpium Citri Reticulatae	7.6	G
<i>guì zhī</i> (桂枝), Ramulus Cinnamomi	7.6	E
<i>dāng guī</i> (当归), Radix Angelicae Sinensis	7.6	AB
<i>rén shēn</i> (人参), Radix Ginseng	7.6	AA
<i>wǔ wèi zǐ</i> (五味子), Fructus Schisandrae	6.1	L
<i>fú líng</i> (茯苓), Poria	6.1	FC
<i>shú dì huáng</i> (熟地黄), Radix Rehmanniae Praep.	6.1	AB
<i>yuǎn zhì</i> (远志), Radix Polygalae	4.5	N
<i>dà zǎo</i> (大枣), Fructus Jujubae	3.0	AA

The *Yang Ying Wan* formula:

Ingredients: (From Minshan “Yang Ying Wan” and Plum Flower “Yang Ying Teapills”)

<i>dǎng shēn</i> (党参), Radix Codonopsis	15.1 %	AA
<i>bái zhú</i> (白术), Rhizoma Atractylodis Macrocephalae	7.6	AA
<i>huáng qí</i> (黄芪), Radix Astragali	7.6	AA
<i>gān cǎo</i> (甘草), Radix Glycyrrhizae	7.5	AA
<i>ròu guì</i> (肉桂), Cortex Cinnamomi	7.5	E
<i>chén pí</i> (陈皮), Pericarpium Citri Reticulatae	7.5	G
<i>dāng guī</i> (当归), Radix Angelicae Sinensis	7.5	AB
<i>dà zǎo</i> (大枣), Fructus Jujubae	7.5	AA
<i>bái sháo</i> (白芍), Radix Paeoniae Alba	7.5	AB
<i>shú dì huáng</i> (熟地黄), Radix Rehmanniae Praep.	5.7	AB
<i>wǔ wèi zǐ</i> (五味子), Fructus Schisandrae	5.7	L
<i>fú líng</i> (茯苓), Poria	5.7	FC
<i>yuǎn zhì</i> (远志), Radix Polygalae	3.8	N
<i>shēng jiāng</i> (生姜), Rhizoma Zingiberis Recens	3.8	BA

Modifications:

In cases of severe chest pain, the prescription is modified to invigorate the blood, clear the collaterals, and relieve pain Add:

<i>dān shēn</i> (丹参), Radix/Rhiz. Salviae Miltiorrhizae	12 g	K
<i>yì mǔ cǎo</i> (益母草), Herba Leonuri	15 g	K
<i>yù jīn</i> (郁金), Radix Curcumae	9 g	K
<i>tián qī</i> (田七), Radix/Rhizoma Notoginseng	9 g	J

In cases of intermittent pulse, the prescription is modified to benefit *qí*, nourish the blood, and restore the pulse, combine with:

ZHI GAN CAO TANG

Formula: *zhì gān cǎo tāng* (炙甘草汤), “Prepared Glycyrrhiza Decoction”

Author: Zhāng Zhòng-Jīng (张仲景)

Source: *Shāng Hán Lùn* (伤寒论), 220, Literal: “Injury (by) Cold, Discussion”

Availability:

LICORICE COMBINATION (EG)
 ZHI GAN CAO TANG (BP, TZ)
 ZHI GAN CAO TEAPILLS (PF)
 ZHI GAN CAO WAN (HT)

Ingredients: (from the standardized “Licorice Combination”)

<i>shú dì huáng</i> (熟地黄), Radix Rehmanniae Praep.	38.2 %	AB
<i>huǒ má rén</i> (火麻仁), Fructus Cannabis	9.5	PB
<i>zhì gān cǎo</i> (炙甘草), Radix Glycyrrhizae Praep	9.5	AA
<i>dà zǎo</i> (大枣), Fructus Jujubae	9.5	AA
<i>guì zhī</i> (桂枝), Ramulus Cinnamomi	7.9	BA
<i>mài mén dōng</i> (麦门冬), Radix Ophiopogonis	7.9	AD

<i>shēng jiāng</i> (生姜), Rhizoma Zingiberis Recens	7.9	BA
<i>rén shēn</i> (人参), Radix Ginseng	4.8	AA
<i>ē jiāo</i> (阿胶), Colla Corii Asini	4.8	AB

Acupuncture:

Needle with reinforcement; add moxibustion

BL 15 *Xinshu*

PC 6 *Neiguan*

CV 17 *Shanzhong*

ST 36 *Zusanli*

BL 17 *Geshu*

For shortness of breath, add moxibustion to:

BL 24 *Qihai*

BL 23 *Shenshu*

6. EXHAUSTION OF YANG QI

Clinical Manifestations: Congestion of the chest, shortness of breath, pain radiating through to the back in severe cases, palpitations, perspiration, aching lower back, pale complexion, pale or purplish lips and nails

Tongue: Pale or dull purple

Pulse: Deep, thready or deep, faint

Therapeutic Method: Warm *yang*, benefit *qi*, relieve pain

Prescription: Combine *Shen Fu Tang* with *You Gui Yin*

SHEN FU TANG

“Ginseng and Aconite Decoction”

<i>rén shēn</i> (人参), Radix Ginseng	30 g	AA
<i>zhì fù zǐ</i> (炙附子), Radix Aconiti Lateralis Praep.	15 g	E

with:

YOU GUI WAN

Formula: *yòu guī wán*, (右归丸), “Right Restoring Pills”

Author: Zhāng Jiè-Bīn (张介宾) *aka* Zhāng Jǐng-Yuè (张景岳)

Source: *Jǐng Yuè Quán Shū* (景岳全书), 1624

Literal: “Jing-Yue’s Complete Writings”

Availability:

EUCOMMIA & REHMANNIA FORMULA (EG)

REPLENISH THE RIGHT (K)

YANOURISH REMEDY (PM)

YAO KWEI PILLS (PM)

YOU GUI TEAPILLS (PF)
 YOU GUI WAN (BP, GC, HT)
 YOU GUI YIN (TZ)
 * JADE MOON PHASE 4 (JW)
 * STRENGTHEN THE ROOT (TT)

Ingredients: (from the standardized “Eucommia & Rehmannia Formula”)

<i>shēng dì huáng</i> (生地黃), Radix Rehmanniae	26 %	DC
<i>shān zhū yú</i> (山茱萸), Fructus Corni	12	L
<i>shān yào</i> (山药), Rhizoma Dioscoreae	12	AA
<i>gǒu qǐ zǐ</i> (枸杞子), Fructus Lycii	12	AB
<i>tù sī zǐ</i> (菟絲子), Semen Cuscutae	12	AC
<i>dù zhòng</i> (杜仲), Cortex Eucommiae	12	AC
<i>zhì fù zǐ</i> (炙附子), Radix Aconiti Lateralis Praeparata	6	E
<i>ròu guì</i> (肉桂), Cortex Cinnamomi	6	E
<i>dāng guī</i> (当归), Radix Angelicae Sinensis	1	AB
<i>lù jiǎo jiāo</i> (鹿角胶), Colla Cornus Cervi	1	AC

Ingredients: (from Herbal Times “You Gui Wan”)

<i>shú dì huáng</i> (熟地黃), Radix Rehmanniae Praep.	18 %	AB
<i>shān yào</i> (山药), Rhizoma Dioscoreae	13	AA
<i>lù jiǎo jiāo</i> (鹿角胶), Colla Cornus Cervi	13	AC
<i>dāng guī</i> (当归), Radix Angelicae Sinensis	9	AB
<i>dù zhòng</i> (杜仲), Cortex Eucommiae	9	AC
<i>gǒu qǐ zǐ</i> (枸杞子), Fructus Lycii	9	AB
<i>shān zhū yú</i> (山茱萸), Fructus Corni	9	L
<i>chǎo tù sī zǐ</i> (炒菟絲子), Semen Cuscutae, charred	9	AC
<i>zhì fù zǐ</i> (炙附子), Radix Aconiti Lateralis Praeparata	5	E
<i>ròu guì</i> (肉桂), Cortex Cinnamomi	5	E

Modifications:

In cases presenting excessive perspiration and deep, faint, barely perceptible pulse, the prescriptions are modified to restrain outward escape of *yang qi*. Add:

<i>duàn lóng gǔ</i> (煅龙骨), Os Draconis Praeparatum	30 g	N
<i>duàn mǔ lì</i> (煅牡蛎), Concha Ostreae Praeparatum	30 g	N

In cases where *yang* deficiency has led to *yin* deficiency, the prescription is modified to warm *yang* and nourish *yin*. Add:

<i>mài mén dōng</i> (麦门冬), Radix Ophiopogonis	9 g	AD
<i>wǔ wèi zǐ</i> (五味子), Fructus Schisandrae	6 g	L

In cases of exhaustion of kidney *yang* which can no longer control water, leading to water *qi* intimidating the heart, there will be symptoms of palpitations, short, rapid, respiration, inability to lie flat, diminished secretion of urine, and edema of the limbs. **The prescription is changed to warm kidney *yang* and promote urination Use:**

ZHEN WU TANG

Formula: *zhēn wǔ tāng* (真武汤), “True Warrior Decoction”

Author: Zhāng Zhòng-Jīng (张仲景)

Source: *Shāng Hán Lùn* (伤寒论), 220

Literal: “Injury (by) Cold, Discussion”

Availability:

GINGER, ACONITE, PORIA/ HOELEN & PEONY COMBINATION (EG)

TRUE WARRIOR FORMULA/TEAPILLS (K, PF)

VITALITY COMBINATION (EG)

ZHEN WU TANG (BP, HT)

Ingredients: (from the standardized “Ginger, Aconite, Poria/Hoelen & Peony Combination”)

<i>bái sháo</i> (白芍), Radix Paeoniae Alba	25.0 %	AB
<i>fú líng</i> (茯苓), Poria	25.0	FC
<i>shēng jiāng</i> (生姜), Rhizoma Zingiberis Recens	25.0	BA
<i>bái zhú</i> (白术), Rhizoma Atractylodis Macrocephalae	16.7	AA
<i>zhì fù zǐ</i> (炙附子), Radix Aconiti Lateralis Praeparata	8.3	E

Acupuncture and Moxibustion

BL 23 *Shenshu*

CV 4 *Guanyuan*

CV 17 *Shanzhong*

PC 6 *Neiguan*

HT 5 *Tongli*

BL 15 *Xinshu*

For cold extremities, add moxibustion to: CV 6 *Qihai*

USEFUL HERBAL PRODUCTS FOR HEART BLOOD STASIS

DAN SHEN YIN

Formula: *dān shēn yǐn* (丹参饮), "Salvia Cool-Decoction"

Author: Chén Niàn-Zǔ *aka* Chén Xiū-Yuán (陈念祖 / 陈修园)

Source: *Shí Fāng Gē Kuò* (时方歌括), 1801

Literal: "Contemporary Formulas (as a) Song Collection"

also attributed to:

Author: Wú Qiān (吴谦)

Source: *Yī Zōng Jīn Jiàn* (医宗金鉴), 1742

Literal: "Medical Tradition Golden Mirror"

Availability:

COMPOUND DAN SHEN PILL (PM)

COOL SALVIA FORMULA (K)

DAN SHEN PIAN/WAN/YIN (BP, HT, PiM, PM, TL)

FU FANG DAN SHEN PIAN/WAN (GC, PM)

SALVIA & PSEUDOGINSENG (KP)

SALVIA PLUS FORMULA (CC)

SALVIA ROOT FORMULA (KP)

SALVIA TEAPILLS (PF)

Ingredients: (From Herbal Times "Dan Shen Wan")

<i>dān shēn</i> (丹参), Radix/Rhiz. <i>Salviae Miltiorrhizae</i>	72 %	K
<i>tán xiāng</i> (檀香), Lignum <i>Santali Albi</i>	14	G
<i>shā rén</i> (砂仁), Fructus <i>Amomi</i>	14	FB

Ingredients: (from Plum Flower "Salvia Teapills")

<i>dān shēn</i> (丹参), Radix/Rhiz. <i>Salviae Miltiorrhizae</i>	69.8 %	K
<i>tán xiāng</i> (檀香), Lignum <i>Santali Albi</i>	13.9	G
<i>shā rén</i> (砂仁), Fructus <i>Amomi</i>	13.9	FB
<i>gān cǎo</i> (甘草), Radix <i>Glycyrrhizae</i>	2.4	AA

Combine with herbs with anti-inflammatory effects:

<i>huáng lián</i> (黄连), Rhizoma <i>Coptidis</i>	DB
<i>hǔ zhàng</i> (虎杖), Rhizoma <i>Polygoni Cuspidati</i>	K
<i>jiāng huáng</i> (姜黄), Rhizoma <i>Curcumae Longae</i>	K

XUE FU ZHU YU TANG

Formula: *xuè fǔ zhú yū tāng* (血府逐瘀汤), “Blood Mansion Drive-Out Stasis Decoction”

Author: Wáng Qīng-Rèn (王清任)

Source: *Yī Lín Gǎi Cuò* (医林改错), 1830

Literal: “Physicians’ Circle, Correction (of) Errors”

Availability:

BLOOD PALACE FORMULA (GF)

DRIVE OUT STASIS IN THE MANSION OF BLOOD FORMULA (HS)

PERSICA & CARTHAMUS COMBINATION (EG)

STASIS IN THE MANSION OF BLOOD (PF)

XUE FU ZHU YU TANG/WAN (BP, HT, TL)

BLOOD’S MANSION (AL)

RED STIRRING (TT)

UPPER PALACE TABLETS (SF)

Ingredients: (from the standardized “Persica & Carthamus Combination”)

<i>táo rén</i> (桃仁), Semen Persicae	16 %	K
<i>dāng guī</i> (当归), Radix Angelicae Sinensis	12	AB
<i>shēng dì huáng</i> (生地黄), Radix Rehmanniae	12	DC
<i>hóng huā</i> (红花), Flos Carthami	12	K
<i>chuān niú xī</i> (川牛膝), Radix Cyathulae	12	K
<i>zhǐ ké</i> (枳壳), Fructus Aurantii	8	G
<i>chì sháo</i> (赤芍), Radix Paeoniae Rubra	8	K
<i>jié gěng</i> (桔梗), Radix Platycodonis	6	CA
<i>chuān xiōng</i> (川芎), Rhizoma Ligustici Chuanxiong	6	K
<i>chái hú</i> (柴胡), Radix Bupleuri	4	BB
<i>gān cǎo</i> (甘草), Radix Glycyrrhizae	4	AA

TONG QIAO HUO XUE TANG

Formula: *tōng qiào huó xuè tāng* (通窍活血汤)
 “Open Orifices Invigorate Blood Decoction”

Author: Wáng Qīng-Rèn (王清任)

Source: *Yī Lín Gǎi Cuò* (医林改错), 1830
 Literal: “Physicians’ Circle, Correction (of) Errors”

Availability:
 PERSICA & CNIDUM COMBINATION (EG)
 PERSICA & LIGUSTICUM COMBINATION (KP)
 TONG QIAO HUO XUE TANG (BP)
 TONG QIAO HUO XUE TEAPILLS (PF)

Ingredients: (from the standardized “Persica & Ligusticum/Cnidium Combination”)

<i>táo rén</i> (桃仁), Semen Persicae	20.7 %	K
<i>gān jiāng</i> (干姜), Rhizoma Zingiberis	20.7	BA
<i>hóng huā</i> (红花), Flos Carthami	20.7	K
<i>dà zǎo</i> (大枣), Fructus Jujubae	17.2	AA
<i>chuān xiōng</i> (川芎), Rhizoma Ligustici Chuanxiong	6.9	K
<i>chì sháo</i> (赤芍), Radix Paeoniae Rubra	6.9	K
<i>cōng bái</i> (葱白), Bulbus Allii Fistulosi	6.9	BA

Ingredients: (from Plum Flower “Tong Qiao Huo Xue Teapills”)

<i>táo rén</i> (桃仁), Semen Persicae	19.8 %	K
<i>hóng huā</i> (红花), Flos Carthami	19.8	K
<i>chì sháo</i> (赤芍), Radix Paeoniae Rubra	10.1	K
<i>chuān xiōng</i> (川芎), Rhizoma Ligustici Chuanxiong	10.1	K
<i>bái zhǐ</i> (白芷), Radix Angelicae Dahuricae	10.1	BA
<i>dà zǎo</i> (大枣), Fructus Jujubae	10.1	AA
<i>gān jiāng</i> (干姜), Rhizoma Zingiberis	10.0	BA
<i>shí chāng pú</i> (石菖蒲), Rhizoma Acori Tatarinowii	10.0	BA

Other Available Products:

CIRCULATION (EV)
 CIR-Q (HC)
 DAN SHEN PIAN (PMF)
 DAN SHEN WAN (HT/8A2-2)
 DRY GINGER TABLETS (SF)
 FLAVONEX (HC)
 HUO XUE TONG MAI WAN (MERIDIAN CIRCULATION PILL) (BE)
 SALVIA SHOU WU (SF)
 SALVIA TEAPILLS (PF)
 VITALITY TABLETS (SF)

HEART PHLEGM (Elevated Blood Lipids)

SHAN ZHA JIANG ZHI WAN

Formula: *shān zhā jiàng zhī wán* (山楂降脂丸), “Crataegus Lower Lipids Pill”

Source: Modern patent medicine

Availability:

SHAN ZHA JIANG ZHI WAN (GC, HT, PM, TL)

Ingredients: (from Herbal Times “Shan Zha Jiang Zhi Wan”)

<i>shān zhā</i> (山楂), Fructus Crataegi	70.0 %	H
<i>shén qū</i> (神曲), Massa Medicata Fermentata	11.5	H
<i>mài yá</i> (麦芽), Fructus Hordei Germinatus	11.5	H
<i>tián qī</i> (田七), Radix/Rhizoma Notoginseng	7.0	J

Ingredients: (from Tanglong “Shan Zha Jiang Zhi Wan”)

<i>shān zhā</i> (山楂), Fructus Crataegi	23.1 %	H
<i>dān shēn</i> (丹参), Radix/Rhiz. Salviae Miltiorrhizae	23.1	K
<i>hé shǒu wū</i> (何首乌), Radix Polygoni Multiflori	23.0	AB
<i>dà huáng</i> (大黄), Radix/Rhizoma Rhei	15.4	PA
<i>tiān kuí zǐ</i> (天葵子), Radix Semiaquilegiae	15.4	DD

CIR-Q

Health Concerns

<i>ān xī xiāng</i> (安息香), Benzoinum	R
<i>chuān xiōng</i> (川芎), Rhizoma Ligustici Chuanxiong	K
<i>dān shēn</i> (丹参), Radix/Rhiz. Salviae Miltiorrhizae	K
<i>chì sháo</i> (赤芍), Radix Paeoniae Rubra	K
<i>wū yào</i> (乌药), Radix Linderae	G
<i>rǔ xiāng</i> (乳香), Olibanum/Boswelliae	K
<i>hóng huā</i> (红花), Flos Carthami	K
<i>zhì gān cǎo</i> (炙甘草), Radix Glycyrrhizae Praep.	AA
<i>tán xiāng</i> (檀香), Lignum Santali Albi	G
<i>wǔ jiā pí</i> (五加皮), Cortex Acanthopanax	FA

CHOLISMA

Evergreen

<i>cāng zhú</i> (苍术), Rhizoma Atractylodis	FB
<i>dān shēn</i> (丹参), Radix/Rhiz. Salviae Miltiorrhizae	K
<i>gé gēn</i> (葛根), Radix Puerariae Lobatae	BB
<i>hé shǒu wū</i> (何首乌), Radix Polygoni Multiflori	AB
<i>hé yè</i> (荷叶), Folium Nelumbinis	DF
<i>hǔ zhàng</i> (虎杖), Rhizoma Polygoni Cuspidati	K
<i>jiǎo gǔ lán</i> (绞股蓝), Rhizoma/Herba Gynostemmatis Pentaphylli	AA
<i>jú huā</i> (菊花), Flos Chrysanthemi	BB
<i>jué míng zǐ</i> (决明子), Semen Cassiae	DA
<i>shān zhā</i> (山楂), Fructus Crataegi	H
<i>yì yǐ rén</i> (薏苡仁), Semen Coicis	FB
<i>zé xiè</i> (泽泻), Rhizoma Alismatis	FB
<i>zī mu xu</i> , Herba Medicago Sativa (alfalfa)	

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CODE LETTERS OF HERBAL COMPANIES

BP	Blue Poppy
CC	Chinese Classics
CMS	Chinese Modular Solutions (Kan)
CP	Classical Pearls
DrJ	Dr. Jake Fratkin's Herbal Formulas
EG	"Standardized" extract granules or capsules from Taiwan and China: Acuherb, E- Fong, Evergreen, Guang Ci Tang, Herbal Times, KPC, Legendary, Mintong, Nong's, Qualiherb, Sunten, etc.
EV	Evergreen
GC	Guang Ci Tang (Active Herb)
GF	Golden Flower
HC	Health Concerns
HS	Honso
HT	Herbal Times (Nuherbs)
JW	Jade Woman's Herbals
K	Kan Herbals and Traditionals
KPC	Kaiser Pharmaceutical (Taiwan)
MS	Minshan (China)
PF	Plum Flower (Mayway)
PiM	Pine Mountain (Institute of Traditional Medicine)
PM	Patent Medicine (various manufacturers, China)
SF	Seven Forest (Institute of Traditional Medicine)
TL	Tanglong (China)
TT	Three Treasures
TZ	TCMZone

CODES FOR THE HERB CATEGORIES

AA	Tonify <i>Qi</i>	<i>bǔ qì</i> (补气)
AB	Tonify Blood	<i>bǔ xuè</i> (补血)
AC	Tonify <i>Yang</i>	<i>bǔ yáng</i> (补阳)
AD	Tonify <i>Yin</i>	<i>bǔ yīn</i> (补阴)
BA	Acrid-Warm Release Exterior	<i>xīn wēn jiě biǎo</i> (辛温解表)
BB	Acrid-Cool Release Exterior	<i>xīn liáng jiě biǎo</i> (辛凉解表)
CA	Dry Dampness, Dissolve Phlegm	<i>zào shī huà tán</i> (燥湿化痰)
CB	Clear Heat, Dissolve Phlegm	<i>qīng rè huà tán</i> (清热化痰)
CC	Relieve Cough, Panting	<i>zhǐ ké píng chuǎn</i> (止咳平喘)
DA	Clear Heat, Drain Fire	<i>qīng rè xiè huǒ</i> (清热泻火)
DB	Clear Heat, Drain Dampness	<i>qīng rè lì shī</i> (清热利湿)
DC	Clear Heat, Cool Blood	<i>qīng rè liáng xuè</i> (清热凉血)
DD	Clear Heat, Resolve Toxins	<i>qīng rè jiě dú</i> (清热解毒)
DE	Clear Heat, Nourish <i>Yin</i>	<i>qīng rè yǎng yīn</i> (清热养阴)
DF	Clear Heat, Resolve Summer-Heat	<i>qīng rè jiě shǔ</i> (清热解暑)
E	Warm Interior	<i>wēn lǐ</i> (温里)
FA	Dispel Wind, Overcome Dampness	<i>qū fēng shèng shī</i> (祛风胜湿)
FB	Dispel Dampness	<i>qū shī</i> (祛湿)
FC	Drain Dampness	<i>lì shī</i> (利湿)
G	Rectify <i>Qi</i>	<i>lǐ qì</i> (理气)
H	Remove Food-Stasis	<i>dǎo zhì</i> (导滞)
J	Stop Bleeding	<i>zhǐ xuè</i> (止血)
K	Invigorate Blood, Dissolve Stasis	<i>huó xuè huà yū</i> (活血化瘀)
L	Consolidate, Astringe	<i>gù sè</i> (固涩)
M	Open Orifices	<i>kāi qiào</i> (开窍)
N	Tranquilize Heart, Calm <i>Shen</i>	<i>zhèn xīn ān shén</i> (镇心安神)
O	Extinguish Wind, Stop Tremors	<i>xī fēng zhǐ chōu</i> (熄风止抽)
PA	Purgatives	<i>xià fǎ</i> (下法)
PB	Moistening Purgatives	<i>rùn xià</i> (润下)
PC	Purgation by Expelling Water	<i>gōng xià zhú shuǐ</i> (攻下逐水)
Q	Kill Worms	<i>shā chóng</i> (杀虫)
R	External Application	<i>wài zhì fǎ</i> (外治法)