The treatment of coronary disease

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Professor Guo Wei-Qing was born to a family with strong Chinese medicine background and has more than 30 years of clinical experience. Her father Professor Guo Shi-Kui was the foremost cardiac specialist in China. She studied under many famous practitioners such as Qin Bo-Wei, Ren Ying-Qiu, Dong Jian-Hua and Liu Dou-Zhou. Since 1977 she has specialised in the treatment of coronary disease, myocardial infarction, hyperlipidemia, atherosclerosis, hypertension, and myocarditis.

Coronary Artery Disease is a frequently encountered disorder; it includes angina pectoris, arrhythmia and heart failure. Clinically treatment of this disease is based on the TCM theory of combined disease identification and pattern differentiations.

Angina pectoris

This is under the scope of Xiong Bi or Xin Tong and the pathogenesis can be a complex syndrome of deficiency and excess. The deficiency can be attributed to insufficiency of Heart qi, Heart yang, Heart yin and Heart blood while the excess can be ascribed to blood stasis, phlegm turbidity, qi stagnation and cold congelation. A common pattern of coronary disease is qi deficiency with blood stasis and therefore treatment strategy is to augment qi and invigorate blood. A healthy Heart reflects the normal interaction of all the zang fu organs even though the disease is located in the heart. Disharmony of the Liver, Spleen and Kidney can have a strong bearing in the disease pathology. Therefore treatment strategy, apart from focusing on the key syndrome needs to pay attention to the many secondary syndromes. Some of these are qi stagnation, phlegm turbidity, Kidney deficiency, restlessness of Heart shen and insufficiency of Heart yang.

- Symptoms associated with qi stagnation are oppressed sensation and pain in the chest, rib-side fullness and distension, irritability and wiry pulse.
- Symptoms associated with phlegm turbidity are swollen tongue body, greasy tongue coat, abdominal fullness, poor appetite, sticky taste in the mouth.
- Symptoms associated with Kidney deficiency are lumbar and back pain, fatigued knees, restlessness, insomnia and profuse dreaming.
- Symptoms associated with Heart yang deficiency are coldness in the back, aversion to cold, preference for warmth, and submerged pulse in the cun position.

Often coronary patients may present with concurrent hyperlipidemia, hypertension and diabetes. Treatment strategy should incorporate these disorders to achieve optimum results. Overall, the key treatment strategy of coronary disease is augmenting qi and invigorating blood coupled with simultaneous secondary treatment strategies whenever necessary.

Yi Qi Tong Mai Tang

*Dang Shen* 10–15g (Codonopsis Radix)
**Huang Qi** 10–15g (Astragali Radix)
**Dan Shen** 20g (Salviae miltiorrhizae Radix)
**Chi Shao** 10–15g (Paeoniae Radix rubra)
**Gui Jian Yu** 12g (Euonymi Ramulus)
**Dang Gui** 12g (Angelicae sinensis Radix)
**Ji Xue Teng** 30g (Spatholobi Caulis)
**Pian Jiang Huang** 10g (Curcumae longae Rhizoma)
**Yu Jin** 10g (Curcumae Radix)
**Zhi Qiao** 10g (Aurantii Fructus)
**Yi Mu Cao** 10g (Leonuri Herba)

**Modifications:**
- For qi stagnation add *Chai Hu* (Bupleuri Radix) 10g and *Xiang Fu* (Cyperi Rhizoma) 12g.
- For phlegm damp add *Fu Ling* (Poria) 15g, *Bai Zhu* (Atractylodis macrocephalae Rhizoma) 10g, *Ban Xia* (Pinelliae Ternata Rhizoma) 10g, fried *Lai Fu Zi* (Raphani Semen) 15g, *Jiao San Xian* 10g, *Huo Xiang* (Pogostemonis Herba) 10g, *Pei Lan* (Eupatorii Herba) 10g.
- For Kidney deficiency add *Gou Qi Zi* (Lycii Fructus) 10g, *Du Zhong* (Eucommiae Cortex) 10g, *Tu Si Zi* (Cuscutae Semen) 10g, *Huai Niu Xi* (Achyranthis bidentatae Radix) 10g, *Bu Gu Zhi* (Psoraleae Fructus) 10g, *Sang Ji Sheng* (Taxilli Herba) 10g.
- For Heart vexation and restlessness add *He Huan Pi* (Albizzia Cortex) 20g, *Sheng Long Mu* (Dracoris Os, Ostreae Concha) 30g each, *Fu Shen* (Poria Sclerotium) 10g, *Ling Ci Shi* (Magnetitum) 30g, *Yuan Zhi* (Polygalae Radix) 6g, *Lian Zi Xin* (Nelumbinis Plumula) 3g.
- For Heart yang deficiency add *Gua Lou* (Trichosanthis Fructus) 15g, *Xie Bai* (Alii Bulbus) 10g, *Gui Zhi* (Cinnamomi Ramulus) 6g.
- For hypertension, add *Gou Teng* (Uncariae Cum Uncis, Ramulus) 15g, *Ju Hua* (Chrysanthemi Flos) 10g, *Xia Ku Cao* (Prunellae Spica) 10g, fried *Shan Zhi Zi* (Gardeniae Fructus) 10g, *Mu Dan Pi* (Moutan Cortex) 10g, *Chuan Lian Zi* (Toosendan Fructus) 10g.
- For hyperlipidemia, add *Sheng Shan Zha* (Crataegi Fructus) 30g, *Cao Jue Ming* (Cassiae Semen), 20g, *Ze Xie* (Alismatis Rhizoma) 10g.

The foremost goal of treatment for angina pectoris is relieving the chest pain. It has been found from our past clinical experience that the combination of *Pian Jiang Huang* with *Yu Jin* has the best pain relieving effect. *Yu Jin* is regarded as a blood invigorating herb with qi regulating function, therefore it can regulate qi and at the same time invigorate blood; *Pian Jiang Huang* can invigorate blood and transform stasis. The combined effect of these two herbs has a strong analgesic function. If this is not effective, additional herbs such as *Bai Ji Li* (Tribuli Fructus) 10g and *Zao Jiao Ci* (Gleditsiae Spina) 3–6g can be added. With the combination of these four herbs, the ultimate effect will be to disperse constrained Liver qi, invigorate blood and stop pain.
Gui Jian Yu is often used for treatment of chest pain as it is a potent blood invigorating herb. Researches of recent years have proved that it can reduce blood lipid (particularly triglyceride) and lead to a moderate reduction of serum glucose.

Case study

Li, female, 58 years old

First consultation: June 14, 1994

History: The patient suffered from coronary artery disease for five years with chest pain from time to time. With each attack, the pain radiated to the left shoulder and forearm, and could last three to five minutes. Shu Jiu Xin Wan (herbal patent pills containing Chuan Xiong Chuanxiong Rhizoma and Bing Pian Borneol) was taken to relieve her chest pain. Recently, due to the change of weather coupled with overtaxation and fatigue, she suffered again from oppressed sensation of the chest, chest pain, shortness of breath and fatigue, heart palpitations and insomnia. Her appetite was normal and so was her bowel movement.

Examination: Dull and swollen tongue body with teeth marks, blood stasis spots along the tongue margin. Her pulse was submerged and forceless.

ECG: ST-T change.

Diagnosis: Qi deficiency with blood stasis accompanied by insufficiency of Heart yang.

Treatment: Yi Qi Tong Mai Tang modified:

Dang Shen 15g (Codonopsis Radix)
Huang Qi 15g (Astragali Radix)
Dan Shen 15g (Salviae miltiorrhizae Radix)
Chi Shao 15g (Paeonia Radix rubra)
Gui Jian Yu 12g (Euonymi Ramulus)
Pian Jiang Huang 10g (Curcumae longae Rhizoma)
Yu Jin 10g (Curcumae Radix)
Zhi Qiao 10g (Aurantii Fructus)
Gu Lou 10g (Trichosanthis Fructus)
Xie Bai 10g (Alii Bulbus)
Gui Zhi 6g (Cinnamomi Ramulus)
Ling Ci Shi 30g (Magnetitum)
He Huan Pi 20g (Albizzia Cortex)
Yuan Zhi 6g (Polygalae Radix)

7 doses

Second consultation: Further consideration to tonifying the Kidney, adding Tu Si Zi 10g, Bu Gu Zhi 10g, Gou Ji 10g for another 7 doses.

Third consultation: All the symptoms were alleviated. Switch to Huo Xue Tong Mai Pian Zhen He Ling and Ren Shen Zao Dai patent medicine for maintenance.
**Arrhythmia**

Coronary disease can often present with arrhythmias such as atrial ectopic beats, ventricular ectopic beats, atrial flutter, atrial fibrillations and ventricular tachycardia. These are under the scope of *Xin Ji* (heart palpitations) in Chinese medicine. The basic pathogenesis is root deficiency with ensuing excess, as shown in the diagram on the left.

Treatment should be focused on the root coupled with clearing constrained heat and calming the Heart shen. Heavy dosage of *Huang Lian* (Coptidis Rhizoma) should be used as *Huang Lian* can clear constrained heat in the Heart channel. Modern researches proved that *Huang Lian* has an anti-arrhythmia effect and is indicated for treatment of ventricular ectopic beats.

**Shi Zao Tang**

*Dang Shen* (Codonopsis Radix)  
*Huang Qi* (Astragali Radix)  
*Dan Shen* (Salviae miltiorrhizae Radix)  
*Chi Shao* (Paeonia Radix rubra)  
*Ling Ci Shi* (Magnetitum)  
*Yuan Zhi* (Polygalae Radix)  
*Huang Lian* (Coptidis Rhizoma)

**Analysis:** *Dang Shen* (Codonopsis Radix) and *Huang Qi* (Astragali Radix) can tonify Heart qi, addressing the root; *Dan Shen* (Salviae miltiorrhizae Radix) and *Chi Shao* (Paeonia Radix rubra) can invigorate blood and transform stasis; *Ling Ci Shi* (Magnetitum) and *Yuan Zhi* (Polygalae Radix) can calm the Heart shen. This was assisted by acrid warm herbs to support the yang in order to negate the bitter coldness of *Huang Lian* (Coptidis Rhizoma). It must be emphasised that the chief herb is *Huang Lian* (Coptidis Rhizoma) as the bitter and cold properties of *Huang Lian* (Coptidis Rhizoma) can relieve and clear constrained heat.

**Case study**

**Li, male, 56 years old**  
**First consultation:** 16th March 1994

**History:** The patient suffered from coronary heart disease for seven years. His past medications were *Xiao Xin Tong* (Isosorbide Dinitrate) and *Xin Tong Ding* (Nifedipine). Six months previously, he suffered from heart palpitations and his ECG was characterised by ventricular premature beats and a ST-T change. He was given *Mang Xin Lu* (Mexiletine) 150mg thrice daily. After the medication, his palpitations were not resolved and he presented at the Dongzhimen Hospital.

**Key symptoms:** Heart palpitations, shortness of breath, fatigue, oppressed sensation in the chest, chest pain, poor sleep and profuse dreaming, lumbar pain, spontaneous sweating and normal appetite.
Examination: Pale and dull tongue with stasis spots and teeth marks along the tongue margin and thin, white tongue coat. His pulse was wiry, slippery and intermittent.

Diagnosis: Qi deficiency with blood stasis with constrained heat harassment.

Treatment: Shi Zao Tang modified, seven doses.

Second consultations: Most symptoms were alleviated. ECG revealed occasional ventricular premature beats. He was given a further seven doses to consolidate.

Heart failure

The latter stage of coronary heart disease or after an attack of myocardial infarction causing impaired cardiac function, this is characterised by palpitations, shortness of breath, dyspnea which worsens with exertion, edema in the lower limbs, nocturnal paroxysmal breathing difficulties, and white, foamy sputum.

The pathogenesis of heart failure can be attributed to qi deficiency with blood stasis and retention of water rheum in the interior. Treatment principle is to augment qi, invigorate blood and dis inhibit water. The more advanced heart failure can exhibit Heart and Kidney yang deficiency and treatment should be augmenting qi, warming the yang, invigorating blood and dis inhibit ing water.

Basic formula:

- **Dang Shen**: 30g (Codonopsis Radix)
- **Huang Qi**: 30-60g (Astragali Radix)
- **Ze Lan**: 12g (Lycopi Herba)
- **Zhu Ling**: 15g (Polypori)
- **Fu Ling**: 15g (Poria)
- **Che Qian Zi**: 15g (Plantaginis Semen)
- **Sang Bai Pi**: 15–20g (Mori Cortex)
- **Ting Li Zi**: 30g (Lepidii Semen)
- **Chi Shao**: 15g (Paeonia Radix rubra)
- **Yi Mu Cao**: 12g (Leonuri Herba)
- **Bai Guo**: 10g (Ginkgo Semen)
- **Su Zi Geng**: 10g each (Perillae Fructus, Caulis)

Modification:

- For yang deficiency, add **Rou Gui** (Cinnamomi Cortex) 10g, **Gan Jiang** (Zingiberis Rhizoma) 10g, **Pao Fu Zi** (Aconiti Radix lateralis praeparata) 10g.

Case study

**Du, male, 60 years old.**

History: The patient suffered from coronary heart disease for more than 10 years with generalised anterior cardiac infarction. His condition worsened during the past two years characterised by frequent nocturnal paroxysmal breathing difficulties, heart palpitations, shortness of breath, dyspnea, fatigue, scanty urination, edema in the lower limbs, and lip-cyanosis.
He had been taking Digoxin 0.25mg once daily with Dihydrochlorothiazide 50mg. His condition was moderately relieved.
In spite of the medications he still suffered from shortness of breath, heart palpitations, edema in the lower limbs, cough, white, foamy sputum, breathing difficulties, abdominal distension, cyanosis etc. His blood pressure was 120/80mmHg and his heart rate was 110/min.

**Examination:** Swollen tongue with pale and dark tongue body, stasis spots along the tongue margin and watery tongue coat. Pulse: Submerged, fine, rapid and forceless.

**Diagnosis:** Coronary artery disease, previous myocardial infarction, heart failure II.

**TCM diagnosis:** Qi deficiency, blood stasis and water retention.

**Treatment:** Augment qi, invigorate blood, eliminate water.

*Dang Shen* 30g (Codonopsis Radix)

*Huang Qi* 30-60g (Astragal Radix)

*Ze Lan* 12g (Lycopi Herba)

*Zhu Ling* 15g (Polypori)

*Fu Ling* 15g (Poria)

*Che Qian Zi* 15g (Plantaginis Semen)

*Sang Bai Pi* 15–20g (Mori Cortex)

*Ting Li Zi* 10g (Lepidii Semen)

*Chi Shao* 15g (Paeonia Radix rubra)

*Yi Mu Cao* 12g (Leonuri Herba)

*Bai Guo* 10g (Ginkgo Semen)

*Su Zi Geng* 10g each (Perillae Fructus, Caulis)

*Gui Zhi* 6g (Cinnamomi Ramulus)

*Pao Fu Zi* 10g (Aconiti Radix lateralis praeparata)

7 doses; continue with Western medication.

**Second consultation** after one week: His condition had much improved and his heart rate was 88 per minute. His appetite was better. The formula was repeated for seven more doses. This was followed by augmenting qi and invigorating blood, tonifying and warming Spleen and Kidney for a few months to stabilise his condition.