## Mài Mén Dōng Tāng (Ophiopogonis Decoction)

- Fujimori K, Suzuki E, Arakawa M. Clinical features of postinfectious chronic cough. Arerugi. 1997 May; 46(5):420-5.
- Fujimori K, Suzuki E, Gejyo F. Effect of Bakumondo-to on increased sensitivity of the cough reflex in a Sjogren syndrome patient with interstitial lung disease. Arerugi. 2001 Apr; 50(4):407-13.
- 20. Guo Wai Yi Xue (Foreign Medicine), 1993; 1:29.
- Miyata T. Novel approach to respiratory pharmacology--pharmacological basis of cough, sputum and airway clearance. Yakugaku Zasshi. 2003 Dec; 123(12):987-1006.
- Watanabe N, Cheng G, Fukuda T. Effects of Bakumondo-to (Mai-Men-Dong-Tang) on cough sensitivity to capsaicin in asthmatic patients with cough hypersensitivity. Arerugi. 2003 May; 52(5):485-91.
- Mochitomi Y, Inoue A, Kawabata H, Ishida S, Kanzaki T. Stevens-Johnson syndrome caused by a health drink (Eberu) containing ophiopogonis tuber. Journal of Dermatology. 1998 Oct; 25(10):662-5.

## Shā Shēn Mài Dōng Tāng (Glehnia and Ophiopogonis Decoction) 沙參麥冬湯 沙参麦冬汤

Pinyin Name: Sha Shen Mai Dong Tang

**Literal Name**: Glehnia and Ophiopogonis Decoction **Alternate Name**: Glehnia and Ophiopogon Combination

Original Source: Wen Bing Tiao Bian (Systematic Differentiation of Warm Diseases) by Wu Ju-Tong in 1798

#### **COMPOSITION**

Sha Shen (Radix Glehniae seu Adenophorae)	9g
Mai Dong (Radix Ophiopogonis)	9g
Yu Zhu (Rhizoma Polygonati Odorati)	6g
Tian Hua Fen (Radix Trichosanthis)	4.5g
Sang Ye (Folium Mori)	4.5g
Bai Bian Dou (Semen Lablab Album)	4.5g
Gan Cao (Radix et Rhizoma Glycyrrhizae)	3g

Note: The source text uses *Sha Shen* (Radix Glehniae seu Adenophorae) as the chief herb but does not specify whether it is *Bei Sha Shen* (Radix Glehniae) or *Nan Sha Shen* (Radix Adenophorae). Both herbs have similar functions to moisten Lung yin, nourish the Stomach, and generate body fluids. However, *Bei Sha Shen* (Radix Glehniae) is stronger in nourishing yin and clearing heat, while *Nan Sha Shen* (Radix Adenophorae) is better at

nourishing yin and dispelling phlegm. Therefore, *Bei Sha Shen* (Radix Glehniae) is generally considered more suitable for this formula.

#### **DOSAGE / PREPARATION / ADMINISTRATION**

Cook the ingredients with 5 cups of water until the liquid is reduced to 2 cups. Take the decoction one time daily.

## Shā Shēn Mài Dōng Tāng (Glehnia and Ophiopogonis Decoction)

#### **CHINESE THERAPEUTIC ACTIONS**

- 1. Clears and nourishes the Lung and Stomach
- 2. Promotes secretion of body fluids and moistens dryness

#### **CLINICAL MANIFESTATIONS**

Dryness damaging Lung and Stomach yin: dry throat, thirst, fever, dry coughing, and dry, sticky sputum.

#### **VETERINARY CLINICAL APPLICATIONS**

Atrophic gastritis, epigastric pain, lung cancer, pneumonia, bronchitis, dry cough and diabetes mellitus.

#### **EXPLANATION**

Sha Shen Mai Dong Tang (Glehnia and Ophiopogonis Decoction) nourishes Lung and Stomach yin, promotes secretion of body fluids, and moistens dryness. It utilizes Sha Shen (Radix Glehniae seu Adenophorae) and Mai Dong (Radix Ophiopogonis) to promote the generation of fluids, moisten dryness, and nourish Lung and Stomach yin. These two herbs also help to clear heat and dryness. Yu Zhu (Rhizoma Polygonati Odorati) and Tian Hua Fen (Radix Trichosanthis) promote the generation of fluids and relieve thirst. Sang Ye (Folium Mori) releases warmth and dryness from the Lung. Bai Bian Dou (Semen Lablab Album) and Gan Cao (Radix et Rhizoma Glycyrrhizae) benefit qi, strengthen the middle jiao, and harmonize all of the herbs.

#### **VETERINARY MODIFICATIONS**

- With dry coughing and scanty sputum, add Chuan Bei Mu (Bulbus Fritillariae Cirrhosae) and Gua Lou (Fructus Trichosanthis).
- With chronic cough due to heat, add Di Gu Pi (Cortex Lycii) and Jie Geng (Radix Platycodonis).
- With constipation, add Xuan Shen (Radix Scrophulariae) and Di Huang (Radix Rehmanniae).

#### PHARMACOLOGICAL EFFECTS

Gastrointestinal: Sha Shen Mai Dong Tang has been shown to have various effects on the gastrointestinal system. It has protective effects against ethanol-induced stomach ulcers and bleeding in rats. It has a marked protective effect against drug-induced damage to the stomach and its mucous membrane. The mechanism of action is attributed in part to the increased generation of stomach mucous membrane and decreased production of stomach acid. Lastly, the formula is deemed to be more effective at higher dose (20 g/kg) than lower dose (10 g/kg).1,2

#### **HUMAN CLINICAL STUDIES AND RESEARCH**

- 1. Atrophic gastritis: Administration of Sha Shen Mai Dong Tang was shown to effectively treat chronic atrophic gastritis. According to one study of 88 patients, improvement was seen in 97.7% of the patients, based on symptomatic evaluation, and improvement in 47.7% based on gastroscope evaluation.3
- 2. Epigastric pain: Sha Shen Mai Dong Tang was used in 40 patients to treat epigastric pain characterized by yin deficiency. Most patients had a history of between 7 and 20 years of illness. Clinical manifestations included dull or burning pain, especially on an empty stomach, a red tongue with little moisture and few fissures, and a fine, rapid pulse. The herbal formula contained Bei Sha Shen (Radix Glehniae) 20g, Mai Dong (Radix Ophiopogonis) 12g, Yu Zhu (Rhizoma Polygonati Odorati) 10g, Shi Hu (Caulis Dendrobii) 15g, Bai He (Bulbus Lilii) 10g, Shan Yao (Rhizoma Dioscoreae) 15g, Dan Shen (Radix et Rhizoma Salviae Miltiorrhizae) 15g, and Zhi Gan Cao (Radix et Rhizoma Glycyrrhizae Praeparata cum Melle) 10g. The treatment protocol was to cook the herbs in water and administer the decoction in two to three equally-divided doses. Of 40 patients, the study reported complete recovery in 21 patients, marked improvement

Sha Shen Mai Dong Tang (Glehnia and Ophiopogonis Decoction)

Diagnosis	Clinical Signs	Treatment	Herbs
Dryness damaging Lung and Stomach yin	Dry coughing and dry, sticky sputum: dryness damaging Lung yin     Dry throat and thirst: dryness damaging Stomach yin	Clears and nourishes the Lung and Stomach Generates body fluids and moistens dryness	<ul> <li>Sha Shen (Radix Glehniae seu Adenophorae) and Mai Dong (Radix Ophiopogonis) promote the generation of fluids, moisten dryness, and nourish Lung and Stomach.</li> <li>Yu Zhu (Rhizoma Polygonati Odorati) and Tian Hua Fen (Radix Trichosanthis) promote the generation of fluids and relieve thirst.</li> <li>Sang Ye (Folium Mori) releases warmth and dryness from the Lung.</li> <li>Bai Bian Dou (Semen Lablab Album) and Gan Cao (Radix et Rhizoma Glycyrrhizae) benefit qi, strengthen the middle jiao, and harmonize all of the herbs.</li> </ul>

# Shā Shēn Mài Dōng Tāng (Glehnia and Ophiopogonis Decoction)

in 15 patients, moderate improvement in 3 patients, and no benefit in 1 patient. The overall effectiveness was 97.5%.4

- 3. Lung cancer: According to one study, administration of *Sha Shen Mai Dong Tang* plus a 10% *Ya Dan Zi* (Fructus Bruceae) preparation in 23 patients with lung cancer was associated with partial relief in 21.74%, stabilization in 39.13%, and no benefit in 39.13% of patients.<sup>5</sup>
- **4. Pneumonia**: One study of 25 children with pneumonia reported complete recovery in 22 patients, significant improvement in 2 patients, and no benefit in 1 patient, after treatment with modified *Sha Shen Mai Dong Tang.*<sup>6</sup>
- 5. Dry cough: One study reported 96% effectiveness using modified Sha Shen Mai Dong Tang to treat 154 patients with dry cough. The herbal formula contained Sha Shen (Radix Glehniae seu Adenophorae), Mai Dong (Radix Ophiopogonis), Yu Zhu (Rhizoma Polygonati Odorati), Tian Hua Fen (Radix Trichosanthis), Gan Cao (Radix et Rhizoma Glycyrrhizae), Sang Ye (Folium Mori), Bai Bian Dou (Semen Lablab Album), and others. Furthermore, Ge Gen (Radix Puerariae Lobatae), Bai Zhi (Radix Angelicae Dahuricae), Lian Qiao (Fructus Forsythiae), Chai Hu (Radix Bupleuri), and Ban Lan Gen (Radix Isatidis) were added for cough with an exterior condition; and Ku Xing Ren (Semen Armeniacae Amarum), Zhe Bei Mu (Bulbus Fritillariae Thunbergii), Chuan Bei Mu (Bulbus Fritillariae Cirrhosae), Yu Xing Cao (Herba Houttuyniae), and others were added for severe cough. The treatment protocol was to administer the herbs in decoction, for 2 to 5 days per treatment course. Of 154 patients, the study reported complete recovery in 76 patients, significant improvement in 54 patients, moderate improvement in 18 patients, and no benefit in 6 patients.7
- 6. Cough and wheezing in children: According to one study, 40 children with cough and wheezing were treated with good results using modified Sha Shen Mai Dong Tang. The herbal formula contained Sha Shen (Radix Glehniae seu Adenophorae), Mai Dong (Radix Ophiopogonis), Tian Hua Fen (Radix Trichosanthis), Yu Zhu (Rhizoma Polygonati Odorati), Bai Bian Dou (Semen Lablab Album), Sang Ye (Folium Mori), Di Long (Pheretima), Jie Geng (Radix Platycodonis), Pi Pa Ye (Folium Eriobotryae), and Gan Cao (Radix et Rhizoma Glycyrrhizae). Additional modifications were made by adding Huang Qin (Radix Scutellariae), and Shi Gao (Gypsum Fibrosum) for fever; and Ma Huang (Herba Ephedrae) and Ku Xing Ren (Semen Armeniacae Amarum) for severe wheezing. The dose of herbs varied depending on the age of the children. Of 40 patients, the study reported complete recovery in 29 patients, improvement in 9 patients, and no benefit in 2 patients.8

7. **Diabetes mellitus**: Administration of *Sha Shen Mai Dong Tang* in 186 patients with diabetes mellitus was associated with marked benefit in 106 patients, moderate effectiveness in 60 patients, and no benefit in 20 patients. The overall rate of effectiveness was 89.2%.

#### SUGGESTED ACUPUNCTURE TREATMENT

- 1. Points: Hegu (LI 4), Feishu (BL 13), Lieque (LU 7), Zhaohai (KI 6), Housanli (ST 36), and Weishu (BL 21).
- 2. Technique: tonification.

Hegu (LI 4) moistens and ventilates the Lung. Feishu (BL 13) clears heat from the Lung channel. Lieque (LU 7) regulates Lung qi. Zhaohai (KI 6) nourishes the yin. Housanli (ST 36) tonifies all three jiaos, which in turn strengthens Lung qi. Weishu (BL 21) tonifies Lung and Stomach yin.

#### **AUTHORS' COMMENTS**

Sha Shen Mai Dong Tang was originally developed to treat Lung and Stomach dryness and damage to yin from an attack by external dryness, one of the *liu yin* (six exogenous factors). Today it can be used to treat fluid damage and dryness that results from chronic medication, chemotherapy or radiation, and following a febrile disease. Animals for whom this formula is appropriate have a dry, hacking cough, dry nose and mouth, and a dry, red tongue with little coating.

Clinically, practitioners may find that performance horses will suffer combined damage to the yin of both the Lung and Stomach from overwork, poor diet, and the administration of NSAIDs. This can lead to a presentation of a dry cough, along with clinical signs consistent with gastritis or gastric ulcer: epigastric and upper thoracic pain, a sour stomach or reflux, and poor performance. Sha Shen Mai Dong Tang may be used alone or in combination with Xiao Yao San (Rambling Powder) in such cases.

This formula can be used to treat diabetes mellitus from qi and yin deficiencies in dogs and cats, with appropriate clinical signs. It should be combined with *Huang Qi* (Radix Astragali), *Bai Zhu* (Rhizoma Atractylodis Macrocephalae), *Cang Zhu* (Rhizoma Atractylodis), *Xi Yang Shen* (Radix Panacis Quinquefolii), *Shan Yao* (Rhizoma Dioscoreae), *Shu Di Huang* (Radix Rehmanniae Praeparata), *Wu Wei Zi* (Fructus Schisandrae Chinensis) and *Ge Gen* (Radix Puerariae Lobatae) for best results.

Qing Zao Jiu Fei Tang (Eliminate Dryness and Rescue the Lungs Decoction) and Sha Shen Mai Dong Tang both contain Sang Ye (Folium Mori), Mai Dong (Radix

## Shā Shēn Mài Dōng Tāng (Glehnia and Ophiopogonis Decoction)

Ophiopogonis), and Gan Cao (Radix et Rhizoma Glycyrrhizae) to moisten dryness.

- · Qing Zao Jiu Fei Tang also contains Shi Gao (Gypsum Fibrosum), Ren Shen (Radix et Rhizoma Ginseng), Hei Zhi Ma (Semen Sesami Nigrum), E Jiao (Colla Corii Asini), Ku Xing Ren (Semen Armeniacae Amarum), and Pi Pa Ye (Folium Eriobotryae). Qing Zao Jiu Fei Tang has a stronger effect to ventilate the Lung, dispel exterior dryness, and clear heat. It nourishes yin and benefits qi.
- Sha Shen Mai Dong Tang also contains Sha Shen (Radix Glehniae seu Adenophorae), Yu Zhu (Rhizoma Polygonati Odorati), Bai Bian Dou (Semen Lablab Album), and Tian Hua Fen (Radix Trichosanthis). Sha Shen Mai Dong Tang has a weaker action to ventilate exterior heat-dryness, as its main effect is to moisten the Lung and Stomach and treat dryness with less exterior clinical signs.10

Sang Xing Tang (Mulberry Leaf and Apricot Kernel Decoction) and Sha Shen Mai Dong Tang both treat heat and dryness.

 Sang Xing Tang treats heat and dryness injuring the Lung at the exterior level, with a mild cough and slight thirst.

• Sha Shen Mai Dong Tang treats heat and dryness injuring yin, manifesting in Lung and Stomach yin-deficient clinical signs of more severe thirst, dry cough with scanty sputum, nausea, and poor appetite.11

#### References

- 1. Zhong Yi Fang Ji Xian Dai Yan Jiu (Modern Study of Medical Formulas in Traditional Chinese Medicine), 1997.
- 2. Bei Jing Zhong Yi Xue Yuan Xue Bao (Journal of Beijing University School of Medicine), 1994, 4:50.
- Zhong Xi Yi Jie He Za Zhi (Journal of Integrated Chinese and Western Medicine), 1986, 6:342.
- Hu Nan Zhong Yi Za Zhi (Hunan Journal of Chinese Medicine), 1987, 5:22.
- 5. Ji Lin Zhong Yi Yao (Jilin Chinese Medicine and Herbology), 1989, 3:19.
- 6. He Bei Zhong Yi (Hebei Chinese Medicine), 1998, 1:40.
- 7. Si Chuan Zhong Yi (Sichuan Chinese Medicine), 1987, 4:25.
- 8. Shang Hai Zhong Yi Yao Za Zhi (Shanghai Journal of Chinese Medicine and Herbology), 1990, 7:29.
- Shan Xi Zhong Yi (Shanxi Chinese Medicine), 1995, 11:482.
- 10. Wang MZ, et al. Zhong Yi Xue Wen Da Ti Ku (Questions and Answers on Traditional Chinese Medicine: Herbal Formulas).
- 11. Wang MZ, et al. Zhong Yi Xue Wen Da Ti Ku (Questions and Answers on Traditional Chinese Medicine: Herbal Formulas).

### Yù Yè Tang (Jade Fluid Decoction) 玉液湯 玉液汤

Pinyin Name: Yu Ye Tang

Literal Name: Jade Fluid Decoction

Original Source: Yi Xue Zhong Zhong Can Xi Lu (Records of Heart-Felt Experiences in Medicine with Reference to

the West) by Zhang Xi-Chun in 1918-34

#### **COMPOSITION**

Huang Qi (Radix Astragali)	15g
Shan Yao (Rhizoma Dioscoreae)	30g
Ge Gen (Radix Puerariae Lobatae)	4.5g
Zhi Mu (Rhizoma Anemarrhenae)	18g
Tian Hua Fen (Radix Trichosanthis)	9g
Ji Nei Jin (Endothelium Corneum Gigeriae Galli)	6g
Wu Wei Zi (Fructus Schisandrae Chinensis)	9g