Chapter 15 Herbs that open orifice

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Concept

• The herbs that have the function of opening up the sensory orifices and awakening the spirit and mainly for closed or locked-up disorder (Bi Zheng). These substances are also used for treating turbid phlegm veiling the sensory orifices, which has a similar presentation and may include seizures.

• The Heart governs the spirit; when pathogenic factors envelop and veil the clear sensory orifices, the spirit is locked up and the patient becomes delirious or even comatose. This is the closed or “locked up” disorder (Bi Zheng), a type of wind-stroke which manifests as coma, locked jaw, clenched fists, rigid limbs, and a forceful pulse.
Concept

- Closed disorders are divided into two categories:
  - Hot closed disorder:
    - Symptoms include delirium, irritability, convulsions, red face, heavy breathing, yellow tongue coating, rapid pulse, and usually a high fever.
    - This occurs when warm-febrile diseases enter the nutritive level as in meningitis, encephalitis, severe pneumonia, and the toxemic stage of suppurative infections. It can also occur in heat stroke, end-stage liver disease, uremia, and cerebrovascular accidents.
  - Cold closed disorder:
    - Symptoms include an ashen or cyanotic face, cold body, white tongue coating, and a slow pulse.
    - This disorder is sometimes heralded by a sudden collapse or foaming at the mouth, which is usually seen in coma from cerebrovascular accidents or poisonings.

Caution

- 1. They should only be used for short periods of time, because they are scattering by nature and can drain the source Qi.
- 2. They should not be used for treating abandoned disorders (Tuo Zheng) when delirium or coma follows excessive sweating, excessive vomiting, or hemorrhage, or if the patient is weak or in shock with such symptoms as severe sweating, cold limbs, flaccidity, loss of bladder and bowel control, and a minute, weak pulse. In this case, warming interior and rescue devastated yang should be used.
- 3. They are almost always taken in pill or powder form.
Caution

• 4. They almost always combined with other herbs to achieve the optimal effect: for hot closed disorders, add herbs that clear heat and relieve toxicity; for cold closed disorders, add warm and pungent herbs that move the Qi.

• 5. Recently, these herbs have been treated for treating angina pectoris. But they have to combine with herbs that warm the middle, promote the movement of Qi, invigorate the blood, and alleviate pain.

• 6. All of them go to heart channel and most of them are acrid and aromatic.

• 7. Most of them contraindicated during pregnancy or Qi, Yin and blood deficiency.

Biomedical perspective

• From a modern biomedical perspective, these herbs stimulate the central nervous system and lead to revival from coma.

• They also have a tranquilizing effect and can thus be used in treating irritability and stopping spasms.
### Study Objective

1. Understand the general information on Herbs that open orifice.
   - a. Concept, common function and indication.
   - b. Characters.
   - c. Compatibility.
   - d. Caution and contraindications

2. Get acquainted with the following individual information on herbs in this category.
   - a. Pinyin name, common English name and pharmaceutical name.
   - b. Characters.
   - c. Functions and indications.
   - d. Dosage and administration.
   - e. Cautions and contraindication.
She Xiang (麝香) (Secretio Moschus)

- **English name**: navel gland secretions of the musk deer, musk
- **Alternate name**: 元寸香 (yuan cun xiang); 当门子 (dang men zi)
- **Latin name**: Moschus moschiferus L.
- **Pharmaceutical name**: Secretion Moschus
- **Where grown**: Tibet, Sichuan, Yunnan (wild); Sichuan, Shaanxi, Anhui (domesticated)
- **When harvested**: taken from deer at least three years of age; winter or spring (wild); once or twice a year (domesticated)
- **Used part**: Navel gland secretions
- **Flavor and properties**: Pungent, warm, aromatic
- **Channel entered**: Heart, spleen, liver
She Xiang (麝香)  
(Secretio Moschus)

• **Functions**
  – 1. Opens orifice and restores Shen.
  – 4. Quickens delivery.

• **Indications**
  – 1. For coma due to any reason.
    • A. Heat syndrome, with Xi Jiao, Niu Huang (as Zhi Bao Dan)
    • B. Cold syndrome, with Su He Xiang, Ding Xiang (as Su He Xiang Wan).
  – 2. For carbuncle pain and sore throat, with Mu Xiang, Tao Ren or Su Mu, Mo Yao.
  – 3. For amenorrhea, acute chest pain and abdominal pain, masses, injury, Bi syndrome, with Chi Shao, Dan Shen, San Leng, E Zhu.
  – 4. For dystocia, dead fetus or placenta fails to descend, with Rou Gui, San Leng, E Zhu.

• **Dosage and administration**
  – 0.03-0.1g in pills, powders, plasters, compresses taken directly.
  – Do not decoct it!

• **Cautions and contraindications**
  – 1. Contraindicated during pregnancy and in syndrome of yin deficiency with heat signs.
  – 2. Caution in cases of hypertension.
She Xiang (麝香)  
(Secretio Moschus)

- **Modern Study**
  - 1. Effect on the central nervous system: in moderate doses increase the latency time for conditioned reflexes and improve differentiation. Large doses are toxic with disappearance of reflexes or disordered reflexes. Stimulatory effect in small doses; Inhibitory effect in large doses.
  - 2. Cardiovascular effect: stimulates the heart and intravenous injection raises blood pressure.
  - 3. Effect on the uterus: strong stimulatory effect on uterine specimens.
  - 5. Use in coronary artery disease: treating angina pectoris.

Bing Pian (冰片)  
(Borneol)

- **English name:** borneol
- **Literal English translation:** “ice slice”
- **Alternate name:** 龙脑香(long nao xiang); 梅片(mei pian); 艾片(ai pian)
- **Latin name:** Dryobalanops aromatica Gaertn.
- **Pharmaceutical name:** Borneol
- **Where grown:** southeast Asia, Taiwan, Guangdong, Guangxi, Yunnan, Guizhou
- **When harvested:** September to October
- **Used part:** Resin
- **Flavor and properties:** Pungent, bitter, cool
- **Channel entered:** Heart, lung, spleen
Bing Pian (冰片)  
(Borneol)

• **Functions**
  – 1. Opens orifice and restores Shen.

• **Indications**
  – 1. For **coma** due to any reason. with She Xiang (as An Gong Niu Huang Wan and Zhi Bao Dan).
  – 2. For **red eyes, sore throat, mouth sore, otitis media, carbuncles and burn**. with Peng Sha, Mang Xiao, Zhu Sha (as Bing Peng San).
Bing Pian (冰片)  
(Borneol)

- **Dosage and administration**
  - 0.15-0.3g in pills or powder or topical use.
  - Do not decoct it!

- **Cautions and contraindications**
  - 1. Contraindicated in cases of Qi or blood deficiency.
  - 2. Caution during pregnancy.
  - 3. Do not expose to heat.

- **Modern study**
  - 1. Effect on the peripheral nervous system: topically for neuralgia. Very mildly stimulates the peripheral sensory nerves.
  - 2. Pharmacokinetics: well absorbed through the skin and mucosal membranes, as well as orally. Metabolized by the liver, and excreted in the urine.
  - 3. Central nervous system effect: stimulatory effect on the higher centers of the brain.

Su He Xiang (苏合香)  
(Styrax Liquidis)

- **English name**: resin of rose maloas, styrax
- **Literal English translation**: “revive and join fragrance”
- **Botanical name**: Liquidambar orientalis Mill
- **Pharmaceutical name**: Styrax liquidis
- **Where grown**: west Asia and east Africa
- **When harvested**: bark is cut in summer and sap collected in autumn
- **Used part**: Resin
- **Flavor and properties**: Sweet, pungent, warm, aromatic
- **Channel entered**: Heart, spleen
Su He Xiang (苏合香) (Styrax Liquidis)

• **Functions**
  – 1. Opens orifice and restores Shen.
  – 2. Expels filth and stops pain.

• **Indications**
  – 1. For coma due to cold or phlegm. with Ding Xiang, An Xi Xiang, She Xiang (as Su He Xiang Wan).
  – 2. For chest and abdominal pain or distention due to phlegm, blood stasis or cold. with Bing Pian, Tan Xiang.
Su He Xiang (苏合香)
(Styrax Liquidis)

- **Dosage and administration**
  - 0.3-1g taken in pill and powder form, or as a tincture for topical application.
  - Do not decoct it!

- **Cautions and contraindications**
  - 1. Contraindicated in cases of high fever and coma and spontaneous sweating and collapse.
  - 2. Caution during pregnancy.

- **Modern study**
  - 1. Effect on the respiratory effect: expectorant effect by irritating the respiratory mucosa.
  - 2. Use in dermatology: effective in treating scabies.

Shi Chang Pu (石菖蒲)
(Rhizoma Acori Graminei)

- **English name**: sweetflag rhizome, acorus
- **Alternate name**: 菖蒲(chang pu)
- **Botanical name**: Acorus gramineus Soland
- **Pharmaceutical name**: Rhizoma Acori graminei
- **Where grown**: Sichuan, Zhejiang, Jiangxi, Jiangsu, Fujian
- **When harvested**: October to November when fruit becomes red.
- **Used part**: stem and root
- **Flavor and properties**: Pungent, slightly warm. Aromatic
- **Channel entered**: Heart, stomach
Shi Chang Pu (石菖蒲)  
(Rhizoma Acori Graminei)

• **Functions**
  – 1. Opens orifice and restores Shen.

• **Indications**
  – 1. For coma due to turbid phlegm, for epilepsy, dizziness, poor memory, tinnitus, deafness due to phlegm dampness.
    • A. Deafness, dizziness, forgetfulness, and fulfilled sensorium, with Yu Jin, Ban Xia
    • B. Epilepsy or stupor
  – 2. For abdominal distention, dysentery due to turbid dampness. with Huo Xiang, Hou Po, Chen Pi.
Shi Chang Pu (石菖蒲) (Rhizoma Acori Graminei)

- **Dosage and administration**
  - 3-9g in either decoctions, pills or powders.

- **Cautions and contraindications**
  - Caution in cases of yin deficiency with heat signs.

- **Modern study**
  - 1. Sedative effect: reduce the free movement in mice and decreased the excitatory effects of ephedrine on the central nervous system.
  - 2. Effect on temperature regulation: lower temperature in white mice.

An Xi Xiang (安息香) (Benzoinum)

- **English name:** benzoin
- **Literal English translation:** “peaceful rest fragrance”
- **Latin name:** Styrax benzoin Dryandl, S. tonkinensis (Pierre) Craib ex. Hortwick or S. hypoglaucus Perk.
- **Pharmaceutical name:** Benzoinum
- **Where grown:** Indonesia; Thailand, Vietnam, Yunnan, Fujian, Guangdong, Guangxi, Guizhou, Yunnan
- **When harvested:** resin is first tapped from 5-10 year old trees between April and September; the tree is thereafter tapped every summer and fall for 7-10 years
- **Used part:** resin
- **Flavor and properties:** Acrid, bitter, neutral
- **Channel entered:** Heart, liver, spleen
An Xi Xiang (安息香)  
(Benzoinum)

- **Functions**
  - 1. Opens orifice and restores spirit (Shen).
- **Indications**
  - 1. For coma due to any reason.
  - 2. For chest and abdominal pain due to Qi and blood stasis.
An Xi Xiang (安息香)  
(Benzoinum)

• **Dosage and administration**  
  – 0.6-1.5g taken in pill and powder form.  
  – Do not decoct it!

• **Cautions and contraindications**  
  – Use with caution in cases of fire due to Yin deficiency.

• **Modern study**  
  – Effect on the respiratory system: directly stimulate the mucosa of the respiratory tract and aid in expectoration.

Chan Chu (蟾酥)  
(Secretio Bufonis)

• **English name:** dried skin secretion of toad, toad venom

• **Latin Name:** Bufo bufo gargarizans Cantor or B. melanostictus Schneider

• **Pharmaceutical name:** Secretio Bufonis

• **Where found:** Hebei, Shandong, Sichuan, Hunan, Jiangsu, Zhejiang

• **When collected:** summer or autumn

• **Used part:** dried skin secretion

• **Flavor and properties:** Sweet, acrid, warm, toxic

• **Channel entered:** Kidney, stomach
Chan Chu (蟾酥)  
(Secretio Bufonis)

• **Function**
  – 1. Opens orifice and revives Shen (Internally taken).
  – Relieves toxicity, reduces swelling and stops pain (Externally use).

• **Indications**
  – 1. For coma after vomiting and diarrhea.
  – 2. For carbuncle, sore throat.
Chan Chu (蟾酥)  
(Secretio Bufonis)

• **Dosage and administration**  
  – External use with proper dosage.  
  – Internal use 0.015-0.03g

• **Cautions and contraindications**  
  – Contraindicated during pregnancy.  
  – Use with caution internally.  
  – Keep out of eyes.  
  – Zi Cao (Radix Arnebiae seu Lithospermi) is the antidote.

Chan Chu (蟾酥)  
(Secretio Bufonis)

• **Modern study**  
  – 1. Cardiac effect: digitalis-like effects; positive inotropic effect with small doses; large doses cause asystole (a state of no cardiac electrical activity).  
  – 2. Central nervous system effect: hallucinogenic effect  
  – 3. Local anesthetic effect:  
  – 4. Effect on muscles: stimulate contractions of the striated muscles.  
  – 5. Effect on the respiratory system: inhibits bronchospasm  
• Herbs that open orifice
  – She Xiang 麝香 Secretio Moschus
  – Bing Pian 冰片 Borneol
  – Su He Xiang 苏合香 Styrax Liquidis
  – Shi Chang Pu 石菖蒲 (Rhizoma Acori Graminei)
  – An Xi Xiang 安息香 Benzoinum
  – Chan Chu 蟾酥 Secretio Bufonis

Practice questions

• 1. Besides opening orifices and reviving the spirit, Bing Pian also:
  – A. Clears heat and drains dampness.
  – B. Clears heat and generates fluid.
  – D. Drain fire and cools blood.

• 2. Which of the following herbs clears heat and opens orifices, clears liver and extinguishes wind, and drains heat and clears fire toxins:
  – A. Zhi Zi
  – B. Niu Huang
  – C. Shi Chang Pu
  – D. Huang Lian
Practice questions

3. The functions of Shi Chang Pu are:
   - A. Open orifices and clear heat.
   - B. Open orifices and invigorate blood.
   - C. Open orifices and transform phlegm, harmonize the middle Jiao and transform dampness.
   - D. Clear damp-heat and stop bleeding