Chapter 17 Herbs that expel parasites

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Concept

• The herbs that are used primarily for treating intestinal parasites such as roundworms, tapeworms and hookworms are called expelling parasites herbs.
• Symptoms: para-umbilical pain, vomiting, change in appetite or deranged appetite (such as pica) and itching in such places as the rectum, nose, or ears. If the condition is prolonged they may become wan and fatigued with emaciated bodies and distended abdomens.
• Many people with parasites have no overt symptoms; their problem may only be revealed by stool examination.
• Herbs must be matched to the particular parasite and the strength or weakness of the individual patient.
• They are neither as strong as many of the modern antiparasitic drugs nor as rapid in onset of action.
• They have significantly less toxicity and their effect is more long-term.
• Some of the herbs also strengthen the SP and, in combination with other substances, can be used in treating the weak and debilitated.
• These herbs should always be used with caution in such cases.

Caution

• 1. Usually taken on an empty stomach to increase their activity.
• 2. When a patient has a fever or relatively severe abdominal pain, it is a good idea to avoid using antiparasitic herbs.
• 3. Caution during pregnancy.
• Herbs that expel parasites
  – Shi Jun Zi 使君子 Fructus Quisqualis Indicae
  – Ku Lian Pi 苦楝根皮 Cortex Meliae Radicis
  – Bing Lang 槟榔 Semen Arecae Catechu
  – Nan Gua Zi 南瓜子 Semen Cucurbitae Moschatae
  – Da Suan 大蒜 Bulbus Alli Sativi
  – Fei Zi 椰子 Semen Torreyae Grandis
  – He Shi 鹤虱 Fructus Carpesii
  – Lei Wan 雷丸 Sclerotium Omphaliae
  – Wu Yi 茵夷 Praeparatio Fructus Ulmi
  – Guan Zhong 贯众 Rhizome Guanzhong
  – He Cao Ya 鹤草芽 Gemma Agrimoniae

Study Objective

• 1. Understand the general information on Herbs that expel parasites.
  – 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.
Shi Jun Zi (使君子)  
(Fructus Quisqualis Indicae)

- **English name:** rangoon creeper fruit with seeds, quisqualis
- **Literal English translation:** “envoy seeds”
- **Alternate name:**君子 (jun zi)
- **Latin name:** Quisqualis indica L.
- **Pharmaceutical name:** Fructus Quisqualis Indicae
- **Where grown:** Sichuan, Guangdong, Guangxi
- **When harvested:** September to November
- **Used part:** Fruit
- **Flavor and properties:** Sweet, Warm
- **Channel entered:** Spleen, stomach
Shi Jun Zi (使君子)  
(Fructus Quisqualis Indicae)

• **Functions**
  – 2. Dissolves accumulation.

• **Indications**
  – 1. For roundworm and pinworm. It is one of the important herbs for killing parasites, especially for children. with Bing Lang, Ku Lian Gen Pi.
  – 2. For childhood malnutritional disorder (Gan Ji) manifested as pale face, skinny body with big abdomen. with Dang Shen, Bai Zhu, Ji Nei Jin.

• **Dosage and administration**
  – 10-15g decocted in water for adult.
  – For pediatric patient 1-1.5 piece per year old, maximum 20 pieces per day.
  – Dry-fry until aromatic to reduce toxicity.

• **Cautions and contraindications**
  – Do not take it with hot tea and hot food which can lead to hiccup and diarrhea.

• **Modern Study**
  – 2. Treatment of roundworm infestation:
Ku Lian Pi (苦楝皮)  
(Cortex Meliae Radicis)

- **English name:** China tree root bark, melia root bark
- **Alternate name:** 苦楝根皮 (Ku Lian Gen Pi)
- **Latin name:** Melia azedarach L.
- **Pharmaceutical name:** Cortex Meliae Radicis
- **Where grown:** Shanxi, Gansu, Shandong, Jiangsu, Zhejiang, Hunan, Guangdong, Guangxi, Yunnan, Hubei, Guizhou, Sichuan, Yunnan, Guizhou, Gansu, Hunan, Hubei, Henan
- **When harvested:** Spring and summer
- **Used part:** Bark
- **Flavor and properties:** Bitter, cold, toxic
- **Channel entered:** Liver, spleen, stomach
Ku Lian Pi (苦楝皮)  
(Cortex Meliae Radicis)

• **Functions**  
  – 2. Treats scabies.

• **Indications**  
  – 1. For **roundworm**, pinworm and hookworm. with Bing Lang, Bai Bu, Wu Mei.  
  – 2. Used **topically for scabies**, **tinea capitis, tinea cruris, eczema, and impetigo**. Mixed with vinegar or oil for topically application.

• **Dosage and administration**  
  – 6-15g or up to 60g when used alone.

• **Cautions and contraindications**  
  – Contraindicated with liver diseases patients.  
  – Should not be taken long time.

• **Modern study**  
  – 1. Antiparasitic effect: very strong inhibitory effects against **roundworms**.  
  – 2. Treatment of parasitic infestations: most effective in treating roundworms.  
  – 3. Antifungal effect: dermatomycoses such as tinea.
Bing Lang (槟榔)  
(Semen Arecae Catechu)

- **English name:** betel nut, areca seeds
- **Botanical name:** Areca catechu L.
- **Pharmaceutical name:** Semen Arecae Catechu
- **Where grown:** Hainan, Yunnan, Fujian, Taiwan, and south and southeast Asia
- **When harvested:** end of spring to autumn when fruit has ripened
- **Used part:** Seed
- **Flavor and properties:** Pungent, bitter, warm
- **Channel entered:** Large intestine, stomach
### Bing Lang (槟榔) (Semen Arecae Catechu)

**Functions**
- 1. Kills parasites.
- 2. Moves Qi and dissolves accumulation.
- 3. Promotes urination.

**Indications**
- 1. For roundworm, **tapeworm** and pinworm.
  - A. Tapeworms, use alone or with Nan Gua Zi, Fei Zi.
  - B. Pinworm, with Bai Bu
  - C. Roundworm, hookworm, with Ku Lian Pi.
- 2. For **childhood malnutritional disorder** (Gan Ji). with Mu Xiang, Da Huang (as Mu Xiang Bing Lang Wan).
- 3. For **edema**.
  - A. Beriberi, with Mu Gua, Wu Zhu Yu, Zi Su (as Ji Ming San).
  - B. Edema, with Fu Ling Pi, Ze Xie.

**Dosage and administration**
- 6-12g or 60-120g when use along for tapeworms.
- Good at tapeworm.

**Cautions and contraindications**
- 1. Use with caution in cases of collapse of the middle Qi.
- 2. Caution during pregnancy.

**Modern study**
- 1. Antiparasitic effect: paralyzes the entire tapeworm in pigs.
- 2. Treatment of tapeworm:
- 3. Antifungal effect: inhibitory effect in vitro against many pathogenic dermatomycoses.
| **Nan Gua Zi (南瓜子)**  
(Semen Cucurbitae Moschatae) |
|---|
| **English name:** pumpkin seeds and husks  
**Literal English translation:** “southern melon seeds”  
**Botanical name:** Cucurbita moschata Duch  
**Pharmaceutical name:** Semen Cucurbitae Moschatae  
**Where grown:** throughout China especially Zhejiang, Jiangsu, Hubei, Shandong, Shanxi, Sichuan  
**When harvested:** Late summer or autumn when ripened  
**Used part:** Seeds and husk  
**Flavor and properties:** Sweet, neutral  
**Channel entered:** Large intestine, stomach |
Nan Gua Zi (南瓜子)  
(Semen Cucurbitae Moschatae)

• Functions
  – Kills parasites.

• Indications
  – For eelworm, schistosome, roundworm, and tapeworm. Usually used with Bing Lang (Semen Arecae Catechu 槟榔). Nan Gua Zi can paralyze the middle and the bottom of worm and Bing Lang can paralyze the head of worm.
    • A. Tapeworms, with Bing Lang
    • B. Roundworm, with Shi Jun Zi, Wu Mei, Ku Lian Pi.

Nan Gua Zi (南瓜子)  
(Semen Cucurbitae Moschatae)

• Dosage and administration
  – 60-120g taken as powder with room temperature water.
  – Also benefited postpartum lactation.

• Cautions and contraindications
  – None.

• Modern study
  – Antiparasitic effect: tapeworms and other intestinal parasites in animals. The herb has preventative effects against the development of schistosomiasis and kills young schistosomes, but does not kill mature ones.
| **Da Suan (大蒜)**  
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<th>(Bulbus Alli Sativi)</th>
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| **English name:** garlic bulb  
**Latin name:** Allium sativum L.  
**Pharmaceutical name:** Bulbus Alli Sativi  
**Where grown:** throughout China  
**When harvested:** may when the leaves have withered  
**Used part:** bulb  
**Flavor and properties:** Acrid, warm  
**Channel entered:** Large intestine, Lung, Spleen |
Da Suan (大蒜) (Bulbus Alli Sativi)

• **Functions**
  – 2. Stops diarrhea.
  – 3. Relieves toxicity and reduces swollen.

• **Indications**
  – 1. For *pinworm, hookworm* and scabies.
  – 2. For *dysentery*.
  – 3. For *carbuncles and scabies*.
  – 4. Treat *lung tuberculosis* and *whooping cough*.

• **Dosage and administration**
  – 5-10g decoction.

• **Cautions and contraindications**
  – Contraindicated in cases of *Yin deficiency with heat signs*.
  – This herb is an *irritant to the skin* and should not be applied topically long-term or taken internally by patients with problems of the mouth, tongue, or throat.
  – Topical application to the perianal area or enemas are contraindicated during pregnancy.
Da Suan (大蒜)  
(Bulbus Alli Sativi)

- **Modern study**
  - 1. Antiparasitic effect: strong inhibitory effect in vitro against amebae.
  - 2. Treatment of amebiasis
  - 3. Treatment of pinworms.
  - 4. Antimicrobial effect
  - 5. Treatment of bacillary dysentery
  - 6. Antifungal effect
  - 7. Treatment of mycoses
  - 8. Treatment of encephalitis
  - 9. Cardiovascular effect: inhibit the development of atherosclerosis in rabbits fed a high cholesterol diet.
  - 10. Gastrointestinal effect: increase in the strength and frequency of movement of the cecum and appendix.
  - 11. Treatment of appendicitis
  - 12. Endocrine effect: increase in the urinary excretion of 17-ketosteroids.

Fei Zi (榧子) 
(Semen Torreyae Grandis)

- **English name:** torreya seeds
- **Latin Name:** Torreya grandis Fort
- **Pharmaceutical name:** Semen Torreyae Grandis
- **Where found:** Zhejiang, Hubei, Jiangsu, Anhui, Hunan, Jiangxi, Fujian
- **When collected:** October to November when seeds have ripened
- **Used part:** seeds
- **Flavor and properties:** Sweet, astringent, neutral
- **Channel entered:** Large intestine, lung, stomach
Fei Zi (榧子)  
(Semen Torreyae Grandis)

• **Function**  

• **Indications**  
  – 1. For *roundworm*, *pinworm*, *fasciolopsis* and *hookworm*.  
    • A. Tapeworms, with Bing Lang.  
    • B. Hookworms, with Bai Bu.  
    • C. Roundworms, with Shi Jun Zi  
    • D. Pinworm, with Bian Xu.  
  – 2. For *constipation* due to *large intestine dryness*.  
  – 3. For *dry coughing* due to *lung dryness*.  

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Fei Zi (榧子)  
(Semen Torreyae Grandis)

• **Dosage and administration**  
  – 9-15g or up to 30g decocted in water for an oral dose.

• **Cautions and contraindications**  
  – It can make uterus contraction leading to miscarriage.

• **Modern study**  
  – 1. Antiparasitic effect: tapeworms  
  – 2. Treatment of hookworm

He Shi (鶴虱)  
(Fructus Carpesii)

• **English name**: carpesium fruit, daucus fruit  
• **Literal English translation**: “crane’s louse”  
• **Alternate name**: 北鶴虱 (bei he shi); 南鶴虱 (nan he shi)  
• **Latin Name**: Carpesium abrotanoides L. or Daucus carota L.  
• **Pharmaceutical name**: Fructus Carpesii seu Daucusi  
• **Where found**: Henna, Shanxi, Shaanxi, Gansu, Shaanxi, Gansu, Shandong, Anhui, Jiangsu, Zhejiang, Hubei, Hunan, Jiangxi, Guangxi, Sichuan, Guizhou  
• **When collected**: late autumn; late summer  
• **Used part**: fruit  
• **Flavor and properties**: bitter, acrid, neutral, slightly toxic  
• **Channel entered**: Liver
He Shi (鹤虱)  
(Fructus Carpesii)

• **Actions**  

• **Indications**  
  – 2. For *roundworm*, *pinworm* and *tapeworm*.
He Shi (鹤虱)
(Fructus Carpesii)

- **Dosage and administration**
  - 5-15g decocted in water for an oral dose.
  - Usually dry-fried and often used in pills or powders.
- **Cautions and contraindications**
  - Do not use it for pregnant women because it can cause abortion.
  - Side effects of this herb include dizziness, tinnitus, and abdominal pain that is usually transient in nature.
- **Modern study**
  - 1. Antiparasitic effects: tapeworms
  - 2. Treatment of parasite infestation: hookworms

Lei Wan (雷丸)
(Sclerotium Omphaliae)

- **English name:** fruiting body of omphalia
- **Literal English translation:** “thunder ball”
- **Latin Name:** Omphalia lapidescens Schiroet. And is also known as Polyporus mylittae Cook. Et Mass
- **Pharmaceutical name:** Sclerotium Omphaliae Lapidescens
- **Where found:** northwestern, southwestern, and southern China
- **When collected:** autumn, spring or winter
- **Used part:** mushroom
- **Flavor and properties:** bitter, cold, slightly toxic
- **Channel entered:** Large intestine, stomach
Lei Wan (雷丸) (Sclerotium Omphaliae)

- **Actions**
  - Kills parasites.

- **Indications**
  - For tapeworm, roundworm, and hookworm.
Lei Wan (雷丸)  
(Sclerotium Omphaliae)

- **Dosage and administration**
  - 6-15g crush before decocting.
  - Most commonly used in pills and powder.
  - Effective ingredient in it will be destroyed if decoct it 60 Centigrade.
  - Good at tapeworm.

- **Cautions and contraindications**
  - Caution in patients with accumulation due to parasites where there is also SP or ST deficiency.
  - Antagonizes Ge Gen and Bian Xu

- **Modern study**
  - 1. Antiparasitic effects: tapeworms and roundworms in vitro.
  - 2. Treatment of parasitic infestation: tapeworm and hookworms

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Wu Yi (芜荑)  
(Praeparatio Fructus Ulmi)

- **English name:** paste made from the fruit of the stinking elm, ulmus
- **Alternate name:** 芜荑仁 (wu yi ren)
- **Latin Name:** Ulmus macrocarpa Hance
- **Pharmaceutical name:** Praeparatio Fructus Ulmi Macrocarpi
- **Where found:** Shanxi, Hebei
- **When collected:** summer
- **Used part:** fruit
- **Flavor and properties:** bitter, acrid, warm
- **Channel entered:** Spleen, Stomach
Wu Yi (芜荑)  
(Praeparatio Fructus Ulmi)

• Actions  
  – 2. Dissolves accumulation.

• Indications  
  – 1. For roundworm and pinworm.  
  – 2. For childhood malnutritional disorder (Gan Ji).
**Wu Yi (芜荑)**
(Praeparatio Fructus Ulmi)

- **Dosage and administration**
  - 3-10g. Used topically as a powder or compress with vinegar or honey.
  - This herb is made by soaking the fruit in water until they begin to ferment.

- **Cautions and contraindications**
  - None

- **Modern study**
  - 1. Antiparasitic effect: roundworms

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**Guan Zhong (贯众)**
(Rhizome Guanzhong)

- **English name:** dryopteris root, shield-fern
- **Literal English translation:** “link the multitude”
- **Alternate name:** 东北贯众 (dong bei guan zhong)
- **Latin Name:** Dryopteris crassirhizoma Nakai., Woodwardia unigemmata Nakai, Osmunda japonica Thunb. Or Matteuccia struthiopteris (L.) Todaro.
- **Pharmaceutical name:** Rhizoma Guanzhong
- **Where found:** Heilongjiang, Jilin, Liaoning, Hunan, Yunan, Guizhou, Henan, Gansu, Shandong, Jiangsu, Zhejiang, Sichuan, Hebei, Shaanxi, and northeast China
- **When collected:** summer or autumn
- **Used part:** rhizome
- **Flavor and properties:** bitter, cold
- **Channel entered:** liver, spleen
Guan Zhong (贯众)  
(Rhizome Guanzhong)

• Actions
  – 2. Resolves toxicity.

• Indications
  – 1. For roundworm, tapeworm and pinworm.
  – 2. For wind-heat, Qi or blood level heat and heat toxicity.
  – 3. For bleeding due to blood heat.
Guan Zhong (贯众)  
(Rhizome Guanzhong)

- **Dosage and administration**
  - 5-10g decocted in water for an oral dose.
  - Do not eat fatty food which can accelerate absorption of toxic ingredient.

- **Cautions and contraindications**
  - Contraindicated during pregnancy and in patients who are weak or have a recent history of ulcers.

- **Modern study**
  - 1. Antiviral effect: inhibit the influenza virus in vitro.
  - 2. Prevention of influenza
  - 3. Antimicrobial effect
  - 4. Antiparasitic effect: roundworms
  - 5. Effect on the uterus: stimulate the uterus.
  - 7. Treatment of roundworms in the bile duct:

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He Cao Ya (鹤草芽)  
(Gemma Agrimoniae)

- **English name**: The bud (with rhizome) of Agrimonia pilosa Ledeb
- **Latin Name**: The bud (with rhizome) of Agrimonia pilosa Ledeb.
- **Pharmaceutical name**: Sprout Agrimoniae Pilosae
- **Used part**: bud
- **Flavor and properties**: bitter, astringent, cool
- **Channel entered**: Liver, Small Intestine, Large Intestine
He Cao Ya (鹤草芽) (Gemma Agrimoniae)

• **Actions**
  – Kills parasites.

• **Indications**
  – For *tapeworm*. It is good at tapeworm and has purgative action.
He Cao Ya (鹤草芽)
(Gemma Agrimoniae)

• **Dosage and administration**
  – 30-45g
  – Take it in the morning before eating.
  – The effective ingredient dose not dissolves in water, so it is taken as powder.

• **Cautions and contraindications**
  – None

Practice questions

• 1. Which of the following action is Shi Jun Zi’s action?
  – A. Kill parasites
  – B. Stop cough
  – C. Brighten eyes
  – D. Tonify Yang

• 2. Which of the following herbs can NOT kill parasites
  – A. Ku Lian Pi
  – B. Fei Zi
  – C. He Shi
  – D. Ma Huang
Practice questions

3. Which of the following herbs can NOT kill parasites
   – A. Lei Wan
   – B. Wu Yi
   – C. He Cao Ya
   – D. Chai Hu

4. Which of the following action is Not Bing Lang’s action
   – A. Kill parasites
   – B. Move Blood
   – C. Move Qi and dissolve accumulation
   – D. Promote urination

5. Which of the following action is Not Guan Zhong’s action
   – A. Stop bleeding
   – B. Calm wheezing
   – C. Kill parasites
   – D. Resolve toxicity

6. Nan Gua Zi can
   – A. Stop bleeding
   – B. Calm wheezing
   – C. Kill parasites
   – D. Resolve toxicity
Practice questions

• 7. Da Suan can not
  – A. Kill parasites
  – B. Stop diarrhea
  – C. Relieve toxicity
  – D. Subdue liver yang