

## Herbal Medicine Approach to Hepatobiliary Dysfunction

(Part II in a series on Herbal Medicine)

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*(adapted from The College of Integrative Medicine Module 30 – Clinical Botanical Medicine)*

### Poor Lipid Digestion, Steatorrhea, Prophylaxis of Cholelithiasis [non-impacted]

(Cholagogues – increase bile flow and the release of stored bile from the gallbladder by stimulating contraction; Cholaretics – increase the production and flow of bile from the liver)

- **Contraindications:** obstructed bile-ducts due to impacted gallstones, cholangitis and cancer of the bile duct; Unconjugated hyperbilirubinemia (hemolytic diseases, Gilbert’s disease, Crigler-Najjar syndrome) acute or severe hepatocellular disease (viral hepatitis, cirrhosis); liver cancer
- **Application:** Cholaretics and cholagogues are best taken before meals (about 30 minutes prior, but can be taken just before eating); Long term therapy is not recommended.
- **Primary Herbal Medicine(s):**
  - **Cholagogues** - Berberis aquifolium (Oregon grape)
  - Chelidonium majus (greater celandine)
  - Chelone (balmony)
  - Chionanthus virginicus (fringe tree)
  - Dioscorea (wild yam)
  - Euonymus atropurpureus (wahoo)
  - Taraxacum officinalis radix (dandelion root)
  - Veronicastrum (black root)
  - Peumus boldus (boldo)
  - Silybum marianum (St Mary’s thistle)
  - Curcuma longa (turmeric)
  - Cynara scolymus (globe artichoke)
  - **Cholaretics** - Silybum marianum (St Mary’s thistle)
  - Curcuma longa (turmeric)
  - Berberis vulgaris (barberry)
  - Chelidonium majus (greater celandine)
  - Cynara scolymus (globe artichoke)

- *Adult Dosage Considerations:*
  - Barberry > 20 to 40 mL/week (1:2 liquid)
  - Dandelion root > 20 to 40 mL/week (1:2 liquid) or 1.5 to 2.0 g/day (tablet)
  - Fringe tree > 20 to 40 mL/week (1:2 liquid) or 500 to 800 mg/day (tablet)
  - Globe artichoke > 20 to 55ml/week (1:2 liquid) or 2.4 to 3.2 g/day (tablet)
  - Greater celandine > 7 to 15 mL/week (1:2 liquid)
  - Oregon grape > 25 to 50 mL/week (1:2 liquid) or 1.4 to 1.8 g/day (tablet)
  - Milk thistle > 30 to 60 mL/week (1:1 liquid) or 30 to 60 g/day (tablet containing 280 to 560 mg flavanolignans)
  - Turmeric > 35 to 100 mL/week (1:1 liquid) or 4.0 to 10 g/day (tablet)

Liver Conditions (e.g. acute viral hepatitis, chronic viral hepatitis, fatty liver, cirrhosis, etc.)

Herbal medicine for conditions of the liver is generally divided into three categories: *hepatics*, which improve the tone, vigor and function of the liver; *hepatoprotectives*, which protects against hepatocyte damage; and *hepatorestoratives*, which restores the integrity of the liver tissue. Many herbs prescribed for the liver exhibit multiple effects. “Apart from their use to provide non-specific support for recuperation and repair, specific phytotherapeutics (i.e. herbal medicine) strategies include the following”<sup>ii</sup>:

- Treatment of moderate acute and chronic hepatitis
- Management of chronic and acute hepatotoxin poisoning; acute and chronic hepatitis; cirrhosis
- Caution prescribing to individuals with primary and secondary liver carcinoma
- *Indications:* hepatics – viral and other types of hepatitis, exposure to pollutants; cirrhosis; anticipation of or along with the prescription of powerful medications.
- *Contraindications:* specific to herb prescribed
- *Application:* “Hepatics are best taken before breakfast in the morning and before the last meal of the day, to take into account the extra liver activity during the day. Long term therapy is quite appropriate for those like milk thistle and artichoke which have established their safety.”<sup>iii</sup>
- *Primary Herbal Medicine(s):*
  - **Hepatics** - Silybum marianum (St Mary’s thistle)
  - Taraxacum officinalis radix (dandelion root)
  - Cynara scolymus (globe artichoke)
  - Schisandra chinensis (schisandra)
  - Berberis aquifolium (Oregon grape)
  - Panax ginseng (Korean ginseng)
  - Phyllanthus amarus (phyllanthus)
  - Salvia miltiorrhiza (dan shen)
  - Andrographis paniculata (andrographis)

- Bupleurum falcatum (bupleurum)
  - **Hepatoprotectives** – Andrographis paniculata (andrographis)
  - Angelica polymorpha (dong quai), Bupleurum falcatum (bupleurum)
  - Camellia sinensis (green tea)
  - Curcuma longa (turmeric)
  - Cynara scolymus (globe artichoke)
  - Panax ginseng (Korean ginseng)
  - Phyllanthus amarus (phyllanthus)
  - Picrorhiza kurroa (picrorhiza)
  - Salvia miltiorrhiza (dan shen)
  - Schisandra chinensis (schisandra)
  - Silybum marianum (St Mary's thistle)
  - **Hepatorestoratives** – Bupleurum falcatum (bupleurum)
  - Cynara scolymus (globe artichoke)
  - Panax ginseng (Korean ginseng)
  - Salvia miltiorrhiza (dan shen)
  - Silybum marianum (St Mary's thistle)
- **Adult Dosage Considerations:**
    - Astragalus > 30 to 60 mL/week (1:2 liquid) or 2.5 to 3.4 g/day (tablet)
    - Bupleurum > 25 to 60 mL/week (1:2 liquid) or 1.2 to 2.8 g/day (tablet)
    - Dan shen > 25 to 50 mL/week (1:2 liquid)
    - Dandelion root > 20 to 40 mL/week (1:2 liquid) or 1.5 to 2.0 g/day (tablet)
    - Dong quai > 30 to 60 mL/week (1:2 liquid) or 2 to 4 g/day (tablet)
    - Globe artichoke > 20 to 55 mL/week (1:2 liquid) or 2.4 to 3.2 g/day (tablet)
    - Green tea > dose of extract containing 170 to 250 mg of catechin per day
    - Korean ginseng > 7 to 40 mL/week (1:2 liquid) or 300 to 500 mg/day (tablet)
    - Oregon grape > 25 to 50 mL/week (1:2 liquid) or 1.4 to 1.8 g/day (tablet)
    - Phyllanthus > 15 to 40 mL/week (1:2 liquid)
    - Schisandra > 25 to 60 mL/week (1:2 liquid) or 3.0 to 5.0 g/day (tablet)
    - St Mary's thistle > 30 to 60 mL/week (1:2 liquid) or 30 to 60 g/day (tablet) containing 280 to 560 mg flavanolignans
    - Turmeric > 35 to 100 mL/week (1:1 liquid) or 4.0 to 10.0 g/day (tablet)

#### Sample liquid herbal medicine prescriptions

#### Gallstones/biliary pain

- Choleric herbs – St Mary's thistle, greater celandine, globe artichoke, dandelion root
- Cholegogue herbs – peppermint
- Spasmolytic herbs to relieve gallbladder pain – cramp bark, chamomile

### Typical treatment for acute hepatitis<sup>iv</sup>

Echinacea angustifolia	1:2	35 ml
Hypericum perforatum	1:2	25 ml
Silybum marianum	1:1	20 ml
Phyllanthus amarus	1:2	20 ml
	Total	100 ml

Dose: 5 ml with water qid Picrorrhiza (immune-enhancing) tablets 500 mg tid can also prescribed. (Gastrointestinal side effects such as cramping and diarrhea should be watched for.)

### Poor liver detoxification

- Hepatoprotective and hepatic trophorestorative herbs, especially if there is a history of liver damage or exposure to toxins. Principle herbs include Silybum (St Mary's thistle), Cynara (globe artichoke) and Taraxacum (dandelion root). Schisandra is particularly useful since it also enhances the detoxifying capacity of the liver.
- Choleric herbs: increase detoxification via bile production and flow. Strong choleric herbs include barberry, greater celandine and bitter herbs (caution: may cause nausea and irritability in patients with liver damage).
- Depurative herbs are also indicated when liver detoxification may be inadequate. Those which act principally via the liver and digestion include burdock, yellow dock and fulmitory

<i>Silybum marianum</i>	1:1	30 ml
<i>Taraxacum officinale</i> radix	1:2	35 ml
<i>Schisandra chinensis</i>	1:2	35 ml
	Total	100 ml

Dose: 5 ml with water bid.

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<sup>i</sup> Mills S, Bone K. Principles and Practice of Phytotherapy; Modern Herbal Medicine. Edinburgh: Churchill Livingstone; 2000. P. 179.

<sup>ii</sup> Ibid. p. 190.

<sup>iii</sup> Ibid. p. 193.

<sup>iv</sup> Ibid.