



Herbal Medicine Approach to Immune Dysfunction

(Part III in a series on Herbal Medicine)

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“Plants have been a central part of traditional medicines to cure topical and systemic infections caused by microbes, in particular bacteria. These preparations form the basis of many wound healing materials in the developing world where the plant is prepared as a crude drug or an extract that is applied topically to improve the healing wound. These preparations may have antimicrobial properties and remove the microbes by an antiseptic mechanism and/or they may promote the ability of the wound to repair itself by stimulating cellular growth.”ⁱ “There are many reasons why plants are available source of antimicrobial natural products and the most fundamental reason is that they contain intrinsically antimicrobial compounds such as carvacrol from thyme (*Thymus vulgaris*) which is a monoterpene and is present in the essential oil of this species.”ⁱⁱ

Herbal strategies (i.e. phytotherapeutics) to treat infectious diseases includeⁱⁱⁱ:

- Minor to moderate acute infections of the respiratory, urinary and gastrointestinal mucosa
- Minor to moderate systemic infections especially when accompanied by lymphadenopathy
- Topical bacterial and fungal infections
- Minor to moderate febrile infections
- Minor to moderate chronic viral, bacterial and fungal infections
- Management of refractory cases of chronic viral, bacterial and fungal infections especially accompanied by lowered immune resistance.

Antibacterial/Antibiotic Agents

- *Indications:* systemic or topical infection
- *Contraindications:* serious infections, such as bacterial meningitis; specific to herb
- *Application:* best taken before or with meals; medium to long-term application is recommended for extended benefits; support intestinal flora with probiotics

- *Primary Herbal Medicine(s):*
 - Allium sativum (garlic)
 - Berberis vulgaris (barberry)
 - Echinacea spp. (echinacea)
 - Hydrastis Canadensis (goldenseal)
 - Salvia officinalis (sage)
 - Scutellaria baicalensis (baical skullcap)
 - Thymus vulgaris (thyme)
 - Commiphora molmol (myrrh)

- *Adult Dosage Considerations:*
 - Barberry > 15 to 40 ml/week (1:2 liquid); echinacea > 25 to 60 ml/week (1:2 liquid) or 2.5 to 5.0 g/day (tablet)
 - garlic > 40 to 80 ml/week (1:1 fresh plant liquid) Allicin-releasing enteric-coated tablets containing 6 to 18 mg of allicin per day
 - Golden seal > 15 to 30 ml/week (1:3 liquid) or 1.0 to 2.0 g/day (tablet)
 - Myrrh > 10 to 30 ml/week (1:5 liquid)
 - Sage > 15 to 30 ml/week 91:2 liquid) or 0.9 to 1.8 g/day (tablet)
 - Thyme > 15 to 40 ml/week (1:2 liquid) or 40 to 60 mg/day (tablet)
 - Baical skullcap > 30 to 60 ml/week (1:2 liquid) or 2.4 to 3.2 g/day (tablet)

Antifungal Agents

- *Indications:* fungal infections (systemic or topical)

- *Contraindications:* specific to herb

- *Application:* best taken before meals; medium to long term

- *Primary Herbal Medicine(s):*
 - Allium sativum (garlic)
 - Azadirachta indica (neem leaf)
 - Tabebuia avellanedae (pau d'arco)
 - Thuja occidentalis (thuja) Thyme vulgaris (thyme).
 - Topical – Calendula officinalis (calendula)
 - Melaleuca alternifolia (tea tree oil)

- *Adult Dosage Considerations:*
 - Garlic > 40 to 80 ml/week (1:1 fresh plant liquid) Allicin-releasing enteric-coated tablets containing 6 to 18 mg of allicin per day; pau d'arco > 25 to 50 ml/week (1:2 liquid) or 1.5 to 2.5 g/day (tablet)
 - Thyme > 15 to 40 ml/week (1:2 liquid) or 40 to 60 mg/day (tablet)
 - Thuja > 15 to 30 ml/week (1:5 liquid) or 400 to 800 mg/day (tablet)

Antiviral Agents

- *Indications:* suspected mild to moderate viral infections
- *Contraindications:* specific to herb
- *Application:* Best taken before meals: medium to long-term
- *Primary Herbal Medicine(s):*
 - Azadirachta indica (neem leaf)
 - Hypericum perforatum (St John's wort)
 - Melissa officinalis (lemon balm)
 - Thuja occidentalis (thuja)
- *Adult Dosage Considerations:*
 - Thuja > 15 to 30 ml/week (1:5 liquid) or 400 to 800 mg/day (tablet)
 - Lemon balm > 20 to 40 ml/week (1:2 liquid)
 - St John's wort > 15 to 40 ml/week (1:2 liquid) or 3.6 to 7.2 g/day (tablet)

Immune Modulators – modulate or balance immune system activity

- *Indications:* recurrent infectious disease due to weakened immune system; weakened immune system
- *Contraindications:* specific to herb; individuals receiving immunosuppressant therapy
- *Application:* best taken with meals; medium to long-term
- *Primary Herbal Medicine(s):*
 - Echinacea spp. (Echinacea root)
 - Eleutherococcus senticosus (Siberian ginseng)
 - Panax ginseng (Korean ginseng)
 - Withania somnifera (withania, Ashwagandha)
- *Adult Dosage Considerations:*
 - Echinacea root > 25 to 60 ml/week (1:2 liquid) or 2.5 to 5.0 g/day (tablet)
 - Korean ginseng > 7 to 40 ml/week (1:2 liquid) or 300 to 500 mg/day (tablet)
 - Siberian ginseng > 15 to 55 ml/week (1:2 liquid) or 2.5 to 6.3 g/day (tablet)
 - Withania (Ashwagandha) > 20 to 50 ml/week (1:1 liquid) or 2.9 to 4.8 g/day (tablet)

Immune Suppressants – dampen immune response (for autoimmune diseases, hay fever, asthma, eczema, urticaria, chronic skin disorders)

- *Indications:* over active immune system
- *Contraindications:* specific to herb; caution with weakened immune systems
- *Application:* best taken with meals; medium to long-term
- *Primary Herbal Medicine(s):*
 - Albizia lebbek (albizia)
 - Hemidesmus indicus (hemidesmus),
 - Tylophora indica (tylophora)
- *Adult Dosage Considerations:*
 - Albizia > 25 to 60 ml/week (1:2 liquid) or 2.4 to 4.0 g/day (tablet)
 - Hemidesmus > 25 to 60 ml/week 91;2 liquid) or 1.5 to 2.5 g/day (tablet)
 - Tylophora > 5 to 15 ml/week (1:5 liquid) for the first 10 to 14 days of each month – dispense separately from other liquid herbs

Lymphatics – herbal medicines that improve lymphatic flow and increase lymphatic detoxification.

- *Indications:* lymphatic congestion/stagnation; detoxification
- *Contraindications:* specific to herb; caution with individuals with lymphatic cancer
- *Application:* best taken with meals; medium to long-term
- *Primary Herbal Medicine(s):*
 - Baptista tinctoria (wild indigo)
 - Calendula officinalis (calendula)
 - Echinacea ssp. (Echinacea)
 - Iris versicolor (blue flag)
 - Galium aparine (cleavers)
 - Phytolacca decandra (poke root)
- *Adult Dosage Considerations:*
 - Baptista > 15 to 40 mL/week (1:2 liquid)
 - Calendula > 10 to 30 ml/week (1:2 liquid); blue flag > 20 to 40 ml/week (1:2 liquid)
 - Clivers (Galium aparine) > 25 to 50 ml/week (1:2 liquid) or 1.0 to 2.0 g/day (tablet)
 - Echinacea > 25 to 60 ml/week (1:2 liquid) or 2.5 to 5.0 g/day (tablet)
 - Poke root > 1 to 5 ml/week (1:5 tincture)

Poor immunity and recurrent infections^{iv}

Individuals with poor immunity and/or recurrent infections should receive treatment selected from the following groups:

- *Immune-enhancing herbs:*

- Echinacea
- Astragalus *
- Picrorrhiza *
- Andrographis
- Phytolacca

**Astragalus should not be prescribed during acute episodes and Picrorrhiza and Astragalus should not be prescribed if the patient is constitutionally cold.*

- *Tonic and adaptogenic herbs:*

- Panax*
- Eleutherococcus*
- Withania

Panax and Eleutherococcus should not be prescribed during acute infection.

- *Bitter herbs:*

- Artemisia absinthium - especially where the patient appears anemic or undernourished. Exercise caution if the patient is also constitutionally cold or counter the cooling effect with warming herbs.

Sample Echinacea Protocol

Echinacea alone, either the root of *E. angustifolia* or *E. purpurea*, has helped countless patients with poor immunity in doses equivalent to 2.5 – 7.5 g/day (5 – 15 ml of a 1:2 preparation).

1. Take 5 ml dose each day (2.5 g) as a maintenance dose (take this twice this dose for maintenance if immunity is poor.)
2. If infection threatens, double or triple the daily maintenance dose until the treat passes.
3. If infection takes hold, maintain the higher dose until the infection is completely gone and then return to normal daily dose.

References

ⁱ Heinrich M, Barnes J, Gibbons S, Williamson EM. Fundamentals of Pharmacognosy and Phytotherapy. 2nd Ed. Edinburgh: Churchill Livingstone; 2012. p. 252.

ⁱⁱ Ibid.

ⁱⁱⁱ Mills S, Bone K. Principles and Practice of Phytotherapy; Modern Herbal Medicine. Edinburgh: Churchill Livingstone; 2000. p. 140.

^{iv} Ibid. p. 142.