Medicinal Plants That Complement OMT

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Evaluating efficacy

• Experience (empirical)
  • History of effectiveness and safety
  • Shared by case reports, observation, apprenticeship

• Studies
  • Biochemistry
  • Observational (confounding factors)
    • Retrospective
    • Prospective
  • Clinical trials (bias)
    • Controlled
    • Blinded

• Reviews
  • Literature review
  • Systematic review
The Five Models of Osteopathic Care

Behavioral

Respiratory-circulatory

Structural

Neurologic

Metabolic-energy
Structural Model

• Removing restrictive forces and enhancing motion by biomechanical adjustment and mobilization of joints
  • Postural exam
  • Structural exam
  • Somatic dysfunction diagnosis
  • OMT

(image from *The Pocket Manual of OMT 2nd Ed.* LWW 2011)
Diagnosis and treatment of somatic dysfunction

ASIS compression test for sacroiliac joint restriction

Sacroiliac articulatory technique

(images from The Pocket Manual of OMT 2nd Ed. LWW 2011)
Burdock
(*Arctium lappa*)

- **Part used:** root, leaves
- **Uses**
  - **Actions:** adaptogen/alterative, antimicrobial, bitter, diuretic
  - **Specifics:** anorexia, arthritis, psoriasis, wound healing
- **Dose**
  - Tincture (1:5 in 40%) 2-4ml SL or PO TID
  - Decoction 1tsp/cup TID
- **Risks:** hypoglycemia
- **Efficacy:** biochemistry (lignans, polyacetylenes, mucilage, inulin), empirical
Catnip
(Nepeta cataria)

- Parts used: aerial (fresh)
- Uses
  - Actions: antispasmodic, carminative, diaphoretic, nervine sedative
  - Specifics: bronchitis, cold/flu, diarrhea, dyspepsia, infantile colic
- Dose
  - Infusion 2tsp/cup, 1oz TID in bottle
  - Tincture (1:5 in 25%) 2-6ml PO TID
  - Topical tincture 1-3 drops in 1 tbsp olive oil applied to abdomen
- Risks: sedation
- Efficacy: systematic review (Garrison 2000), biochemistry (nepatolactone, volatile oils, tannins), empirical
Cayenne
(Capsicum annuum)

- Part used: dried fruit
- Uses
  - Actions: analgesic, anti-inflammatory, antimicrobial, carminative, rubefacient, sialagogue
  - Specifics: claudication, dyspepsia, laryngitis, low back pain, neuralgia, post-surgical pain
- Dose
  - Topical: 0.025-0.075% cream applied sparingly to painful area
  - Tincture .6-2ml PO TID
- Risks: Contraindicated with skin damage, wounds
- Efficacy: systematic review (Liebert 2014), biochemistry (reduction in TRPV1 expressing nociceptive nerve endings, substance P inhibitor), empirical
Comfrey
*(Symphytum officinale)*

- Part used: leaf, root
- Uses
  - Actions: anti-inflammatory, astringent, demulcent, vulnerary
  - Specifics: ankle sprain, fractures, ulcers, varicose veins, wound healing
- Dosing
  - Internal use not recommended
  - Topical: 5-20% dried herb oil extraction
- Risks: hepatotoxicity (pyrrolizidine alkaloids)
- Efficacy: *systematic review* (*Frost 2013*), biochemistry (allantoin, mucilage, steroidal saponins, tannins), empirical
Teazle
(Dipsacus sylvestris)

• Part used: biennial root
• Uses
  • Actions: analgesic, anti-inflammatory, nervine tonic
  • Specific: arthritis, fracture healing, joint laxity, ligament sprains, Lyme disease, tendonitis
• Dosing: tincture 1:5 in 50% 0.5-1ml SL TID
• Risks: Herxheimer reaction
• Efficacy: empirical, biochemistry (caffeic acids, inulin, iridoide monoterpenes, mineral salts)
Willow  
*(Salix species)*

- Part used: bark, root
- Uses
  - Actions: analgesic, antipyretic, anti-inflammatory
  - Specifics: arthralgia/arthritis, fever, headache, *low back pain*, myalgia
- Dose
  - Capsules 120-240mg PO TID-QID (standardized to salicin)
  - Infusion 1-3g/cup PO TID-QID
  - Tincture (1:5 in 25%) 1-3ml SL QID
- Risks: allergy, anticoagulants
- Efficacy: *systematic review* ([Vlahojannis 2009](#)), biochemistry (flavonoids, procyanidins, salicin, tannins), empirical
Yarrow
(Achillea millefolium)

• Part used – flowering tops

• Uses
  • Actions: anti-inflammatory, antimicrobial, antispasmodic, astringent, bitter hepatic, diaphoretic, diuretic
  • Specific: cystitis, diarrhea, dyspepsia, fever, hemorrhage, hypertension, lacerations, loss of appetite

• Dosing
  • Infusion 1-2 tsp/cup TID
  • Tincture (1:5 in 25%) 2-4ml SL TID
  • Poultice - grind flowers into paste and apply

• Risks: pregnancy, iron binding

• Efficacy: biochemistry (alkaloids, ascorbic acid, flavonoids, lactones, salicylates, tannins, volatile oils), empirical
Neurologic Model

- Attaining autonomic balance and addressing neural reflex activity by removing facilitated segments, decreasing afferent nerve signals, and reducing pain
  - Referred pain
  - Viscerosomatic reflexes/Chapman points
  - OMT to rebalance autonemics

(image from Pocket Manual of OMT 2nd Ed, LWW 2011)
Sympathetic normalization

Parasympathetic normalization

Rib raising

Suboccipital inhibition

(images from The Pocket Manual of OMT 2nd Ed. LWW 2011)
Cannabis
(Cannabis sativa, C. indica, C. ruderalis)

• Parts used: buds, leaves

• Uses
  • Actions: analgesic, antiemetic, appetite stimulant, sedative, hypnotic
  • Specifics: AIDS wasting, chemotherapy nausea, chronic pain, glaucoma, insomnia, seizure disorders, spasticity, Tourette syndrome

• Dose
  • Whole plant: 25mg inhaled TID
  • Tincture: 5-20ml SL BID-QID
  • CBD oil: 5-20ml PO BID-QID
  • Cannabidiol (Epidiolex) 2.5-5mg/kg PO BID
  • Dronabinol (Marinol) 2.5-10mg capsules PO BID
  • Nabilone (Cesamet) 1mg capsules PO q8-12hr

• Risks: hyperthermia, machinery operation, psychosis, sedative use, seizure disorder

• Efficacy: systematic review (Whiting 2015), biochemistry (cannabadiol, terpenes, tetrahydrocannabinol), empirical
Cannabis requires heat for activation (decarboxylation)

Vaporization is fastest acting

Oral tincture/spray is fast acting if decarboxylated

(pure cannabis only)
Feverfew
(Tanacetum parthenium)

• Part used: leaf
• Uses
  • Actions: antihistamine, anti-inflammatory, antispasmodic, bitter, emmenagogue, vasodilator
  • Specific: colds, fever, **migraine**, tension headache
• Dosing
  • Prophylaxis: 50-100mg capsules (standardized to 0.2% parthenolide) po QD
  • Treatment: 100mg capsule po Q 30 min
• Risks: allergy, anticoagulants, pregnancy
• Efficacy: empirical, biochemistry (flavonoids, lactones, sterols), **systematic reviews** ([Ernst 2002](#), [Pareek 2011](#))
Holy basil
(Ocimum tenuiflorum)

• Part used: flower tops
• Uses
  • Actions: adaptogen, autonomic normalization, diaphoretic, diuretic, hepatic, mucolytic, nervine tonic
  • Specifics: allergies, asthma, appetite stimulation, cannabis detoxification, diabetes, headache, metabolic syndrome, stress
• Dosing: infusion 1tsp/cup TID
• Risks: none known
• Efficacy: systematic review (Jamshidi 2017), biochemistry (β-caryophyllene, carvacol, eugenol, linalool, oleanolic acid, rosmarinic acid, ursolic acid), empirical
Lavender
(Lavandula angustifolia)

• Part used: flowers

• Uses
  • Actions: antispasmodic, emmenagogue, hypotensive, nerve, rubefacient
  • Specifics: anxiety, depression, headache, **insomnia**, skin infection

• Dosing
  • Infusion 1-2tsp/cup TID
  • Inhalation/topical 1-4 drops

• Risks: none known

• Efficacy: **systematic review** (Fismer 2012), biochemistry (coumarins, flavonoids, ursolic acid, volatile oils), empirical
Peppermint  
(Mentha piperita)

• Part used: aerial

• Uses
  • Actions: analgesic, antiemetic, antimicrobial, antispasmodic, antitussive, carminative, cholagogue, diaphoretic, nervine
  • Specifics: colic, dyspepsia, irritable bowel syndrome, nausea, tension headache

• Dosing
  • Infusion 1tsp/cup prn
  • Tincture (1:5 in 40%) 1-2ml SL pr PO TID
  • Inhaled 0.2ml oil in 2ml saline
  • Topical q.15-30min

• Risks: reduces iron uptake

• Efficacy: systematic review (Khanna 2014, Kligler 2007), biochemistry (flavonoids, menthol, rosmarinic acic), empirical
St. John’s wort

(*Hypericum perforatum*)

- **Part used:** aerial
- **Uses**
  - Actions: anti-inflammatory, antiseptic, antiviral, astringent, nerve tonic, vulnerary
  - Specifics: anxiety, **depression**, dermatitis, neuropathy, obsessive-compulsive disorder, premenstrual syndrome, wound healing
- **Dosing**
  - Extract (standardized to 0.3% hypericin) 300mg PO TID
  - Infusion 1-2tsp/cup TID
  - Topical: oil infusion
- **Risks:** antidepressants, drug interactions (P450 inducer), oral contraceptives, photosensitivity, psychosis, tyramine foods
- **Efficacy:** **systematic review** *(Linde 2008)*, biochemistry (flavonoids, hypericin, volatile oils), empirical
Valerian
(Valeriana officinalis)

• Part used: root

• Uses
  • Actions: antispasmodic, emmenagogue hypnotic, nervine sedative
  • Specifics: anxiety, benzodiazepine withdrawal, epilepsy, insomnia, menopausal symptoms, menstrual cramps, neuralgia, tremors

• Dose
  • Extract 600mg PO HS
  • Capsule 2-3g PO TID

• Risks: sedation

• Efficacy: systematic review (Bent 2006), biochemistry (essential oils, valepotriates, valerenic acid), empirical
Respiratory-Circulatory Model

• Improving breathing and venous/lymphatic drainage by removing diaphragm restrictions and moving fluids
  • Palpation for edema
  • Evaluation and treatment of fascial diaphragms
  • OMT to improve respiration and drainage

Fascial diaphragms restrict lymphatic and venous return
(image from Netter Presenter with permission)
Lymphatic treatment

Diaphragm myofascial release

Lymphatic pump

(images from The Pocket Manual of OMT 2nd Ed. LWW 2011)
Cleavers  
(*Galium aparine*)

- **Part used:** aerial (fresh)
- **Uses**
  - Actions: alterative, anti-inflammatory, astringent, diuretic, lymphatic
  - Specifics: cystitis, lymphadenitis, lymphedema, nephrolithiasis, psoriasis, tonsillitis
- **Dosing**
  - Infusion 2-3 tsp/cup TID
  - Tincture (1:5 in 25%) 4-8ml SL TID
- **Risks:** none known
- **Efficacy:** biochemistry (caffeic acid, salicylic acid, citric acid, coumarins, iridoids, tannins), empirical
Dandelion (Taraxacum officinalis)

- **Parts used:** leaf, root
- **Uses**
  - Actions: antirheumatic, diuretic, hepatic, laxative, tonic
  - Specifics: arthritis, gastritis, hypertension, psoriasis
- **Dose**
  - Leaf: tincture (1:5 in 40%) 2-4ml SL TID; infusion 1-2tsp/cup TID
  - Root: tincture (1:5 in 60%) 2.5-5ml PO TID; decoction 2-3tsp/cup TID
- **Risks:** Asteraceae allergy
- **Efficacy:** systematic review (Sweeney 2005), biochemistry (lactones, potassium, sterols, terpines, vitamin A), empirical
Elderberry
(Sambucus nigra, S. canadensis)

- Parts used: berries, flowers, leaves
- Uses
  - Actions: antitussive, antioxidant, antirheumatic, antiviral, diaphoretic, diuretic, expectorant, immunostimulant, laxative
  - Specifics: arthralgia, colds, flu, mouth ulcers, sinusitis, tonsillitis
- Dosing:
  - Syrup 1tbsp PO TID
  - Lozenge 175mg PO QID
  - Topical leaf poultice
  - Tincture (flower 1:5 in 40%) 2-4ml PO TID
- Risks: nausea/vomiting (raw)
- Efficacy: systematic review (Hawkins 2019), biochemistry (anthocyanin, flavonoids, palmitate, quercetin, sterols), empirical
Ginkgo
\((Ginkgo\ biloba)\)

- Part used: leaves
- Uses
  - Actions: anticoagulant, antioxidant, anxiolytic, vasodilator
  - Specifics: altitude sickness, cerebrovascular insufficiency, claudication, **dementia**, erectile dysfunction, macular degeneration, Raynaud disease, vertigo/tinnitus
- Dosing: 80-240mg capsules (standardized to 24% flavonoids, 6% terpines) BID-TID
- Risks: bleeding, drug interactions
- Efficacy: **systematic review** (Brondino 2013), biochemistry (bilobalides, ginkgoflavones, ginkolides), empirical
Horse chestnut
(Aesculus hippocastanum)

• Part used: nut
• Uses
  • Actions: anticoagulant, anti-inflammatory, astringent, vasoconstrictor
  • Specifics: arthritis, diarrhea, edema, hemorrhoids, prostatic hypertrophy, neuralgia, **venous insufficiency**
• Dosing: 300mg capsules BID (standardized to 50mg escin)
• Risks: anticoagulation
• Efficacy: **systematic review** ([Pittler 2012](#)), biochemistry (escin, esculin, flavonoids, sterols), empirical
Poke

(Phytolacca decandra)

• Part used: root

• Uses
  • Actions: anticatarrhal, antirheumatic, expectorant, emetic, immunostimulant, lymphatic, purgative
  • Specifics: arthritis, lymphadenopathy, mastitis, upper respiratory infections

• Dosing
  • Decoction 1/4tsp/cup TID
  • Tincture (1:10 in 45%) .25ml SL or PO TID

• Risks: diarrhea, pregnancy, lactation, children

• Efficacy: biochemistry (lectins, mitogens, sterols, triterpenoid saponins), empirical
Red clover
(Trifolium pratense)

- Part used: flowers
- Uses
  - Actions: antispasmodic, expectorant, anticoagulant, estrogenic, lymphatic
  - Specifics: chronic skin conditions, menopausal symptoms, pharyngitis
- Dosing
  - 40-80 mg capsule (dried flowers) PO QD
  - Infusion 1-3tsp/cup TID
  - Tincture (1:10 in 45% alcohol) 1-2ml SL TID
- Risk: female cancers, endometriosis, fibroids
- Efficacy: systematic review (Ghazanfarpour 2016), biochemistry (coumarins, isoflavones, salycylates), empirical
Red clover

Wood sorrel
• Plants provide a parallel pharmacy that is as potent as most petroleum-based pharmacology and is more procurable to those in need.

http://herbalremediesathome.blogspot.com/
References


• Whiting PF, Wolff RF, Deshpande S et al. **Cannabinoids for medical use: A systematic review and meta-analysis.** *JAMA* 313(24):2456-73. 2015.