Osha

Scientific Name: *Ligusticum porteri*

Common Names:
- Bear Root, Chuchupate, Colorado Cough Root, Indian Parsley, Mountain Lovage, Porter’s Licorice Root, Wild Celery Root, Porter’s Lovage, Mexican ginseng¹-⁶
- also: Ha-chi-de, Kwimi dechi, Pah-net-snap, Raiz angelica, Raiz de cochino, Wadda-e-gopa, Wasia, Yerba de cochino³

Description of Active Ingredients:
- ligustilide (root)¹; furanocoumarins (psoralen and bergapten)²; pyranocoumarins², phthalides²
- unique resinous odor, considered “hot or caliente”³
- in animal studies and tissue cultures, psoralen has been shown to have antitumor/antibiotic properties after exposure from ultraviolet light²
- psoralen and bergapten have been shown to help re-pigment skin (topical healing)²
- *Ligusticum* species pyranocoumarin extracts (anomal, pteryxin, khellactone) have been shown to have vasodilatory effects in rabbit studies²
- phthalides (butylidenephtalide, ligustilide, butylphthalide isolates) from *Ligusticum* species have been shown to inhibit smooth muscle activity (antispasmotic agent) in rat studies (specifically uterine contractions induced by PGs, oxytocin and ACh)²

MOA:
- ligustilide – antimicrobial, antiviral, inhibits viral protease (preliminary evidence), inhibits influenza virus- but no explanation how (preliminary evidence)¹; antispasmotic activity by inhibiting PG, oxytocin and ACh²; no clinical trials human¹
- furanocoumarins (psoralen and bergapten)- antibiotic, antitumor, antiviral activity via intercalating w/ DNA and RNA molecules to inhibit cellular growth following excitation of molecules²
- pyranocoumarins- no MOA given for vasodilatory effect²
- phthalides- antispasmotic activity by inhibiting PG, oxytocin and ACh (exact mechanism not reported)²

Current Indications and Efficacy:
- internally: sore throat, bronchitis, cough, loosens phlegm, common cold, influenza, pneumonia, lung infections, bronchial inflammation, indigestion, flatulence, ulcers, stomach ache, herpes, AIDS/HIV, tuberculosis, hay fever, diaphoretic, carminative, analgesic, emetic, viral infections, food/spice (leaves)¹-⁶
- topically: prevents wound infections, antirheumatoid infusion preparation, poultice for scorpion and insect bites, infusion for cleaning ears with ticks and killing lice, crushed root and water gargle for sore throat¹-⁴
- reported efficacy is high among those familiar with its uses²; documented use since 1777 when Franciscan and Jesuit missionaries categorized medicinal plants¹; UCHSC School of Pharm, Boulder interviewed families in the San Luis Valley (CO) regarding customary use and efficacy²

Contraindications/allergies:
- none reported¹,⁵

Dosage Forms, recommended doses, duration:
- forms: 1:2 tincture (fresh root), 1:5 tincture (dried root), often in multi-ingredient products, tea, infusion, syrup, salve of pine pitch + root pulpice¹-³,⁶
- doses: tincture 20-60 gtts up to 5x/d, 30-90 gtts in hot water, strong decoction 2-4 oz up to QID, simple tea ½ c up to QID¹-⁴

Drug interactions and Drug-Disease interactions:
- none known, little known¹,⁶

Other safety issues:
- avoid in pregnancy + lactation (reported abortifacient, stimulates menstruation)¹

Other Comments:
- commonly used in Native American (Tarahumara, Tewa, Apache, Zuni, Paiute, Yavapai) + Hispanic cultures¹-⁶
- commonly used as talisman in Native and older Hispanic culture⁷
- leaves similar to poison hemlock- identify by root (malodorous, strong celery like odor), do not confuse w/ poison hemlock when harvesting¹⁵,⁶
- wild grown, perennial, higher elevations, western + southwestern US in pine-oak forests, endangered plant¹,³,⁶


Original Author Andrea Chadwell
Reviewed 5/14/03 Susan Paulsen PharmD