

GRAVIOLA

(*Annona muricata*)

Clinical Summary

Actions

- Anticancer
- Anti-inflammatory
- Antioxidant
- Antispasmodic
- Anticonvulsant
- Antidiabetic
- Antibacterial
- Anti-arthritic
- Insecticidal
- Antiparasitic
- Antimalarial
- Hepatoprotective
- Hypotensive
- Sedative

Indications

- Cancer adjuvant therapy
- Diabetes
- Hypertension
- Gastric upset, indigestion, diarrhoea
- Jaundice
- Fever
- Pain
- Parasitic and bacterial infections

Traditional Use

All parts of the graviola tree including the bark, leaves, root, fruit and seeds are used extensively as traditional medicines against an array of human ailments and diseases, especially cancer and parasitic infections. Traditionally the dark leaves are used for headaches, insomnia, cystitis, liver problems, diabetes and hypertension. The cooked leaves, applied topically, fight rheumatism and abscesses.

Energetics

Cooling.

Constituents

Phytochemical studies reveal that annonaceous acetogenins are the major constituents of graviola. More than 100 annonaceous acetogenins have been isolated from the leaves, barks, seeds, roots and fruits of graviola. The leaves are also rich in secondary class metabolite compounds such as alkaloids, saponins, terpenoids, flavonoids, coumarins and lactones, anthraquinones, tannins, cardiac glycosides, phenols and phytosterols. The alkaloids (reticuline, coreximine, coclaurine and anomurine) and essential oils (β -caryophyllene, δ -cadinene, epi- α -cadinol and α -cadinol), mainly sesquiterpenes derivatives stand out. Phenolic compounds include quercetin and gallic acid.

Use in Pregnancy

Information on safety and efficacy is lacking.

Contraindications and Cautions

There is a concern that graviola might exacerbate Parkinson's symptoms as acetogenin constituents are neurotoxins *in vivo*. Neurotoxicity studies of annonacin suggest that there is a need for a long exposure to this molecule to observe the effect in rodent models, while pharmacokinetic studies estimated low bioavailability of this compound. Nevertheless patients with established Parkinson disease should avoid consumption of the fruit or decoctions made from the leaves.

Drug Interactions

None known.

Administration and Dosage

Liquid extract 1:2 in 45% alcohol
40 to 80mL weekly