Kava Kava (*Piper methysticum*)

Common Indications:

- Anxiety/depression
- Menopausal and perimenopausal anxiety when used in combination with HRT
- Analgesic effects
- Antispasmodic effects
- Cancer support

General Comments:

Kava kava is a common herb consumed by the Pacific Island people. It has broad beneficial effects on the peripheral and central nervous system[2]. The primary active constituents in the resin include kavalactones, chalcones and other flavanones, and conjugated diene ketones. At least 18 lipid-soluble kavalactones, the primary bioactive constituents, have been isolated from kava root extract[1,2].

Benefits & Mechanism of Action

Anxiolytic Effects

In vivo and in vitro studies have shown kava lactones to be significant anxiolytics. It has been shown to inhibit noradrenaline, sodium and potassium channel uptake. Unlike benzodiazepines, kava does not bind to the GABA-A receptor complex, but the GABA complex has been shown to be the cause of some of kava's sedative-like side effects[1,3].

Analgesic and Antispasmodic Effects

Kava has been shown to be a potent anesthetic in animal studies (both aqueous and lipid-soluble extracts). It is a very potent local anesthetic, comparable to procaine and cocaine. However, when given at too high of dose, temporary paralysis can occur[1]. The analgesic effects have not been found to potentiate the opioid pathways[4,5]. Two kava lactones (dihydromethylsticin and dihydrokavian) were shown to be equal to 2.5 mg/kg dose of morphine. Other studies have shown that several extracts of kava had the ability to inhibit COX-1 and, to a small extent, COX-2 enzyme activities[4].

Cancer Support

Kava kava extracts have antiproliferative effects on some cancers. One in vivo study observed that when mice with lung cancer were given kava, there was decrease in proliferation and an increase in apoptosis in the lung tumors. Studies have also observed that kava may have a protected effect on the prostate and development of colon cancer[6,7].

Dose

- Dependent on concentration of kava lactones
- 100 mg TID of standardized 70% extract
- Larger doses can lead to toxicities

Standardization

Kava products should be standardized to contain 70% kava lactones.

Caution & Side Effects

- Use with caution with moderate alcohol consumption due to due to potentiation of CNS side effects.
- Potential additive effects with coadministration of benzodiazepines and barbiturates
- Safety in pregnancy is unknown
- Caution with use with levodopa - potential pharmacodynamic interaction leading to decreased efficacy of levodopa.
- Kava dermopathy: ichthyosiform skin rash (ocular photosensitivity can also occur); can occur in heavy long-term doses
- Avoid use in patients with pre-existing liver disease.

References

GENERAL ROLE

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