

Notes on Selected Herbal Medicines #2

This is the second bulletin focusing on the toxicity of common herbal medicines. Bulletin #55, September 2000 (available on the Clinical Pharmacology webpage) discussed dong quai (*Angelica*), ginkgo biloba, ginseng (*Panax*), Siberian ginseng and St John's wort.

Herbal Medicines

With increasing interest in 'natural' therapies, more and more individuals are utilising herbal medicines. However, because herbal medicines contain pharmacologically active constituents, they should not be discounted as harmless. They may cause adverse or toxic reactions and have the potential to interact with conventional medicines.

As they have been studied less intensively than conventional medicines, information on the toxicity of herbal medicines is extremely limited.

Echinacea (*Echinacea sp.*)

Adverse effects

Rare adverse effects include somnolence, dizziness, headache, gastrointestinal disturbance, eczema, dyspnoea and anaphylaxis.

Interactions

It is suggested that the immunosuppressant effects of agents such as corticosteroids or ciclosporin may be antagonised by the immunostimulating effects of echinacea.

Kava (*Piper methysticum*)

Adverse effects

Sedation, oral and lingual dyskinesia, torticollis, oculogyric crisis, exacerbation of Parkinson's disease, headache, dizziness, local numbness, gastrointestinal upset, photosensitivity, rash and eye redness.

Excessive chronic use may result in weight loss, altered liver function tests, photophobia, dry, scaly skin and yellow discolouration of the skin and nails.

Interactions

Kava may have additive CNS depressant effects when combined with agents such as alcohol or benzodiazepines. Use with dopamine antagonists, may increase the risk of extrapyramidal side effects.

Ma Huang (*Ephedra sinica*)

The active constituents of ma huang are ephedrine-related alkaloids. The adverse effects and interactions of this medicine are therefore similar to that observed with ephedrine (ie. sympathetic stimulation).

Saw Palmetto (*Serenoa repens*)

Adverse effects

Headache, hypertension, nausea, abdominal pain, constipation, diarrhoea, back pain, decreased libido, impotence, dysuria and urinary retention.

Interactions

Saw palmetto has oestrogenic and antiandrogenic properties and may interfere with hormone replacement therapies. Constituents have been shown to inhibit dihydrotestosterone receptor binding and 5 α -reductase activity. There is some suggestion that this agent may contribute to false-negative prostate-specific antigen (PSA) results.

Valerian (*Valerian officinalis*)

Adverse effects

Headache, hangover-like effects, excitability, hallucinations, increased muscle relaxation, ataxia, hypothermia, blurred vision, cardiac disturbance, gastrointestinal upset and hypersensitivity reactions.

Intentional overdose has resulted in rapid onset of fatigue, chest tightness, abdominal cramps, light-headedness and tremor of the hands and feet. A withdrawal syndrome including cardiac abnormalities and delirium has been reported.

Interactions

Valerian has been shown to prolong barbiturate-induced sleep. Concomitant use should be avoided in patients taking other central nervous system depressants due to the risk of additive effects.

Miscellaneous

Chamomile (*Matricaria recutita*)

Chamomile contains coumarin. Despite widespread use, we are not aware of reports of this translating into coagulation disorders. Caution with use of this agent is still advised in patients receiving anticoagulant therapy.

Garlic (*Allium sativum*)

Garlic has been associated with decreased platelet aggregation and antithrombic activity. Elevations in INR and prothrombin times have occurred in patients previously stabilised on warfarin. Garlic has hypoglycaemic activity and may complicate glycaemic control in some patients.

Naturalness does not imply harmlessness

The Drug Information Service is interested to hear of any suspected herbal drug-interactions or adverse effects.