•Botany	Epimedium species, usually E. grandiflorum; leaves or root used
•History	long used in traditional Chinese medicine (TCM) and called Ying Yang Huo
•Chemistry polys	flavonoids, icariin (a flavonol glycoside), accharides; active components are unknown
•Pharmacolo	gy animal studies show some effects in increasing semen, increasing growth of prostate and testicular tissue, lowering blood pressure and decreasing platelet adhesion. In vitro inhibitory effects on cancer cells
•Use	impotence, aphrodisiac, tonic and a variety of other uses in TCM including for heart disease
	Horny Goat Weed

Yohimbe

•Botany:

•W. African tree (Pausinystalia yohimbe)

•bark used

•Chemistry:

•about 6% alkaloids

•2-4% yohimbine (Rx only, 5.4mg TID)

•Pharmacology:

•alpha adrenergic receptor blocker

•increase excitability in sacral region of spinal cord

•MAOI vasodilation

Yohimbe

•Adverse

•CNS stimulation (lower doses)

•hypertension (lower doses), insomnia

activation of psychoses

•Hypotension (higher doses)

•Cardiac depression (higher doses)

•Herbal/Drug interactions

•MAOI

•additive problems with adrenergic and other MAOI



•Rx drug, usually 15-30mg/d used; avoid >30mg/d

Yohimbe-Bottom line

•Quality control problems

•Most dietary supplement products have subtherapeutic amounts of yohimbine

•If 6% yohimbine, then 250-500mg/d would be OK

Horse Chestnut

- •Botany Aesculus hippocastanum
- •History Long used but in recent years seed extract has been tested in human studies
- •Chemistry the saponin escin is thought to be the active

•Pharmacology Escin inhibits hyaluronidase and elastase which are involved in increased capillary permeability.

•Use horse chestnut seed and leaf are used for the treatment of varicose veins, hemorrhoids, and phlebitis. Horse chestnut seed is used for diarrhea, fever, and enlarged prostate. Seed extract used for venous insufficiency and vericose veins



Horse Chestnut

- Evidence: human studies support use of the seed extract in CVI
- Safety: the raw seed contains the toxic esculin which can cause bleeding and other adverse events. The extract does not and is safe.
- Drug Interactions: anticoagulants
- Products:seed extract only
- Summary:reasonable evidence for CVI and is recommended. Use seed extract standardized to 16-24% escin (aescin).



Diehm et al. Lancet 1996;347:292-294; n=240; extract containing 50mg escin BID

Eleutherococcus (Siberian Ginseng)

•Botany Eleuthrococcus senticosus

•History Long used in a manner similar to ginseng, i.e. as a "tonic" and "adaptogen"

•Chemistry steroidal glycosides termed eleutherosides are present in the root

•Pharmacology animal studies indicate some interesting pharmacological activities.

•Use: high or low blood pressure, atherosclerosis, pyelonephritis, craniocerebral trauma, rheumatic heart disease, neuroses, insomnia, increasing work capacity, Alzheimer's disease, attention deficit-hyperactivity disorder (ADHD), chronic fatigue syndrome, diabetes, fibromyalgia, rheumatoid arthritis, influenza, chronic bronchitis, tuberculosis, improving athletic performance and many other uses.

Eleuthero

- Evidence: few human studies support the many uses
- Safety:relatively safe although tachycardia, hypertension, palpitations,sciatica, neuritis have been reported.
- Drug Interactions: unknown but one study indicated no effect on CYP2D6 or 3A4. Use care with antiplatelet adhesion drugs and anticoag.
- Products:extracts standardized on the eleutherosides
- Summary:uncertain usefullness.









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Letter to the Editor

inger in preventing nausea and vomiting of regnancy: a caveat due to its thromboxane synbetase activity and effect on testosterone binding

It was recently reported that ginger root diinishes or eliminates the symptoms of hypermesis gravidarum [1] and that this is due to its romatic, carminative and absorbent properties.

ger inhibit platelet aggregation and alter arachidonic acid metabolism. Biomed Biochem Acta 1984;43:335-346.

3 Backon J. Ginger: inhibition of thromboxane synthetase and stimulation of prostacyclin: relevance for medicine and psychiatry. Med Hypoth 1986;20:271-278.

4 Backon J. Antidepressant activity of cimetidine: relevance of thromboxane inhibition. Med Sci Res 1987;15:1078.

5 Bone ME, Wilkinson DJ, Young JR, McNeil J, Charlton S. Ginger root - a new antiemetic: the effect of ginger root on postoperative nausea and vomiting after major gynaecological surgey. Anaesthesia 1990;45:669-671.

Since ginger is a potent thromboxane synthetase inhibitor [2,3], as is cimetidine [4], it may affect estosterone receptor binding in the fetus possibly iffecting sex steroid differentiation of the fetal brain. Ginger has recently been found to signifiantly reduce postoperative emetic sequelae [5].

Our group has had extensive therapeutic expeience with ginger. We have suggested numerous uses for it [3,6] including: preventing liver damage [7], in burns [8], in treating peptide ulceration [9], s an antidepressant [4], and in preventing aging Enile vascular changes and impotence [10].

We carried out toxicological tests on ginger sing the SOS Chromotest but could find no widence of toxicity (Backon J, unpublished data). However, until the effects of ginger on testostrone receptor binding in the fetus are thorughly investigated, I would be hesitant in recompending its use in pregnant women.

leferences

Fischer-Rasmussen W, Kjaer SK, Dahl C, Asping U. Ginger treatment of hyperemesis gravidarum. Eur J Obstet Gynecol Reprod Biol 1990;38:19-24. Srivastava KC. Aqueous extracts of onion, garlic and gin-

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Other uses:

•Pain/osteoarthritis – only very mild effects demonstrated in a study comparing ibuprofen, ginger extract and placebo (Osteoarthritis Cartilage 2000;8:9-12)

Ginger Summary

- possibly worthwhile in preventing motion sickness
- possibly worthwhile in treating and preventing nausea
- must weigh risk vs. benefit in treating nausea of pregnancy
- products and doses
 - 0.5-1g one hour before travel
 - 2g/d in divided doses for nausea
 - dried powdered ginger capsules are OK



- DHEA (dihydroepiandosterone
 - precursor to androgens and estrogens in the biosynthetic pathway
 - levels decline with age but not in all
 - doesn't bind to receptors
 - touted as a fountain of youth formula (50-100mg/d is a common dose)
 - some evidence of benefit in women mostly
 - in lupus (van Vollenhoven et al. Lupus 1999;8:181-187.); n=21 some improvement on bone mineral density and symptom index
 - improving quality of life in an elderly population (50-100mg/d)(PNAS 97:4279-4284,2000)
 - · Memory- most studies show no benefit





45/106 71/118

>4

Baseline SLEDAI Score

10/38

28/53

>8

65/146 86/147

>2

10%

0%

DHEA Summary

 DHEA may find some therapeutic uses, particularly in lupus, but for now risks of self care with this steroid are uncertain

- Melatonin
 - N-acetyl-5-methoxytryptamine
 - secreted by pineal gland at night
 - declines with age
 - is strong antioxidant
 - good evidence for preventing jet lag (1-3mg 1h before hs)
 - uneven but mostly positive evidence for common insomnia, especially in the elderly
 - little evidence for antiaging properties
 - some promise as an adjunct with cancer therapy and in a myriad of other uses
 - safe enough for short term use but ----



less chemotherapy related toxicity









- CoQ₁₀
 - -called also ubiquinone
 - is part of mitochondial electron transport chain
 - -strong antioxidant
 - best evidence is for benefit in cardiac disease where levels are low
 - Earlier controlled studies showed benefit in congestive heart failure but a recent well done study (Khatta et al. Ann intern med 2000;18:636-640) with an n=55 treated at 200mg/d found no objectve benefit compared to placebo.

–Other Uses

-preventing migraine - one study (n=31)

–reducing systolic hypertension – n=83;
60mg BID; reduced 17.8+/-7.3mm Hg (S
Med J 2001;94:1112-7

-Type 2 diabetics - reduced systolic and diastolic and glycemic control n=74; 200mg/d(Eur J Clin Nut 2002;56:1137-42

–Parkinson's Disease – 1 study showed slowing of progression n=80 300-1200mg/d; another showed mild symptomatic relief n=28

-Safety: seems OK

-Interactions: seems OK

–Summary:

-Conflicting results on benefit in congestive heart failure

-Limited data supporting use in:

-Hypertension

-Angina

-Parkinson's Disease

-Migraine

-Type 2 diabetes

-More studies will clarify extent of benefits