Ministry of Health & Population
(MOHP)

Monograph

For

Herbal Medicinal Products

2007

Central Administration of Pharmaceutical Affairs (CAPA)
In collaboration with World Health Organization(WHO)

Preface

Herbs play a far great part in our everyday lives than most of us realize. Both horticulture and botany began with the study of herbs: the earliest gardens were herb gardens, and the first botanic gardens started as physic gardens to educate medical students about drug plants

Herbs have changed the cause of history, and in economic terms are nowadays of even greater importance as ingredients in food, medicine, perfumery and cosmetics, as well as garden plants.

All herbals build on earlier knowledge, while reflecting the practice and interests of the time. This book is no exception. Its aim is to draw stands of knowledge to gather, providing a reference source for the millennium that in turn will accommodate new information and perspectives.

I would like to personally thank the members of the formulation committee of this monograph as well as the administration staff whose combined effort has brought us this publication

I hope this Medicinal Herbal Products Monograph will be a valuable tool gore health care prachtiones and will serve to improve the health of Egyptian people.

Prof. Dr. Hatem El-Gabaly
Minister of Health and Population

Foreward:

Medical Professionals found that getting good idea on herbal medicines and supplement is hard to do – many studies do not meet rigorous scientific standards. Some studies are corrupted by commercial interests. Some references are biased towards…. Or against…. The use of natural remedies – some cite anecdotal or unsubstantiated scientific support for certain natural products. This lack of reliable data on natural products results in inappropriate use

Our goal for this Monograph is to help patients we aim to do this by providing health practitioners with the best collection of data and consensus of available scientific information on natural medicines

We decided that good patient care would be best served by starting with a large data base of scientifically reliable and clinically practical data. This data base contains a listing for 200 herbal medicinal products available in Egypt, whether locally produced or improved. The monograph for each herb presents the data that arte known and reliable

We determined that the data should be divided into categories based on the questions that come up most often

- Name and synonyms: many herbal medicines have a variety of names. Some names are based on the plant species, some are based on folklore or tradition
- Reported uses: this to tell you what the product is good for
- Description: brief description of the plant itself and its morphological appearance including, where it is cultivated and method(s) of production/
- Pharmacology: including active substances, effects, safety in certain age, groups and in co-morbidity, pregnancy and ;lactation
- Adverse reactions
- Interactions
- Dosage and rout of administration

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Achilea ptarmica

Scientific name:

Sneezewort

Description:

Medicinal part: is the dried root

Flower and fruit:

The flowers are white, composite and in cymes at the tip of the stem. The bracts are lanceolate and short-haired. The ray florets are linguiform and female. The disc florets are tubular and androgynous. The chaff scales are lanceolate and haired-tipped. The fruit is hairless

Leaves, Stem and Root:

The plant grows from 30 to 80 cm high. The rhizome is creeping and the stem is upright and glabrous. The leaves are glabrous, alternate simple lanceolate. Acute, sessile and finely serrated. They are slightly glassy and dark green

Habitat:

The plant is indigenous to northern and central Europe

Production:

The rhizome is drug up in the autumn of its second year of bearing fruit, washed, free of any green arcas and dried in the shade at a temperature of 35^0c

Pharmacology and actions:

Compounds:

- Volatile oil
- Polynes: pontica expoxide, tridecatrine-(1,3,5)-triin-(7,9,11)-cis-dehydromatricaria
- Alkamides: trans-dehydromatricaria acid, isobutylamide

Effects:

No information is available

Unproven uses:

It was used as a remedy for tiredness, anorexia, urinary tract disorders, nausea, vomiting, diarrhea, rheumatism and other painful conditions. Today it is considered a remedy for toothache. Flatulence and regulation of bowel movements

Adverse reaction:

- No health hazards are known with the designed therapeutic dosages
- Allergic symptoms

Dosages:

Mode of administration: it is available as a topical preparation and in alcoholic extracts

Preparation: to prepare an infusion, use 2 teaspoonfuls of the comminuted drug to 2 cups of water

Dose: A daily infusion can be drunk or the fresh root can be chewed

Acidophilus lactobacillus

Synonyms:

Acidophilus, probiotic

Family: lactobacillaceae – it is found in dairy products especially in milk and young, people with lactose intolerance are cautioned to avoid these products which contain lactose as an ingredient

Reported uses:

Orally it is used for improving lactose intolerance, for vaginal and urinary tract infections, antibiotic-induced diarrhea, oral Candida infections (thrush), reducing high cholesterol levels, irritable bowel syndrome, inflammatory bowel syndrome, fever blisters and adolescent acne

Safety:

- Likely safe when used orally and appropriately.
- In children, it is possibly safe when used orally for diarrhea.
- Pregnancy and lactation: insufficient reliable information available; avoid using

Effectiveness:

- Likely effective when used orally for restoring intestinal flora.
- Possibly effective when taken orally for antibiotic-induced diarrhea, reducing recurrence of vaginal and urinary tract infection and fever blisters and adolescent acne
- Ineffective for its other uses

Mechanism of action and active ingredients:

It is a native inhabitant of the human GI tract. It produces lactic acid and hydrogen peroxide which can suress pathogenic bacteria

Adverse reaction:

Allergies, flatulence (subsides as therapy continues)

Dosages:

Oral: dose varies. The strength is some times quantified by the number of giving organisms per capsule. Dose is usually from one to 10 billion organisms in 3-4 dividing doses daily. Its potency is reduced by storage

conditions and its duration. Refrigeration in its original container is recommended

Interactions:

- With drugs: ampicillin, amoxicillin, it can reduce or prevent antibiotic-induced diarrhea
- With diseases: in lactose intolerance. It is avoided with products which contain lactose as an ingredient
- No interactions with food, herbs, dietary supplements and lab tests

Adonis

Scientific name:

Adam's Needle. yucca filamentosa, Adonis vernalis

Unproven uses:

Orally, it is used to treat liver and gallbladder disorders.

Description:

Medicinal parts are the leaves and the roots of non-flowering plants.

- Flower and fruit:

The flowers are ovary-colored and locate in modding, many – blossomed terminal panicles. The perigot is simple campanulate, tinged greenish on the outside with 6 tepole. The flower has 6 stamens and the stigma is sectioned.

- Leaves, stem and root:

The plant is 120 to 240 cm in height; the leaves are in a basal rosette. They are sword – shaped an erect with a recurved tip. They are short – thorned, broad grooved and covered on the margin with long, twice whitish or yellowish threads.

- Habitat:

The plant is indigenous to the southern unit states and is cultivated mainly as an ornamental plant Europe

Production:

The leaves of yucca filamentosa

Dosages:

The average daily dose is 0.5 gm of standardized Adonis powder. The maximum single dose 1 gm, maximum daily dose is 3 gm.
Drops 5-10, one tablet or 5 to 10 globules, 1 to 3 times daily. Injection S.C. 1 ml once per week.

Adverse reactions:

Serous poisoning in the course of per oral administration is not expected due to the low resumption rate even parenteral use possesses strong cardio active steroid glycosides

Interactions:

Simultaneous administration of quinidine, digoxin, calcium, saluretics, laxatives and glucocorticoids

Storage:

Adonis herb and power should be stored carefully. Adonis powder should be stored away from light in tightly sealed containers

Agar

Synonyms:

Agar-Agar, Agarweed, Chinese, Gelatin, Colle du Japon, Gelatin, Gelosa, Japanese, Isiglas, Layer Carang, Vegetable Gelatin

Scientific name:

Gelidiella accrosa, Gelidium Crinale, Gelidium Cartilageineum, Gelidium crinale, Gelidium divarictum, Gelidium pacificum, Gelidium vagum, Garacilaria confervoides

Family:

Sphaerococcaceae, species of the genera pterocladia, Ahnfeltia, Acanthopeltis, Sahria

Reported uses:

Orally, it is used as a bulk laxative for chronic constipation. In dentistry, it is used to make dental impressions. In industry, it is used as ingredient in emulsions suspensions, gells and hydrophilic suppositories.

Description:

Medicinal parts: the medicinal part of the plant in the seaweed's gelatinous extract known as Agar or Agar-Agar

Flower and fruit:

This perennial seaweed grows up to one meter long. The thallus sprouts from a permanent base every year and is heavily branched. It is cylindrical or flatted, pinnately subdivided and tough. The brownish-white, translucent phallus has prickly appendages on the branching. The fruit is spherical

Characteristics:

Agar is color less and tasteless. It is capable of absorbing up to 200 times its volume of water to form jelly.

Habitat:

The plant is indigenous to the pacific coasts of Japan and China, Srilanka and South African coasts.

Production:

Agar or Agar-Agar is the purified and bleached gel derived from Algae mucilage of the Rhodophycene Gelidium amansii (Lamoure) which has been dried and cut into thread-like strips. An aqueous extract is obtained from the alagae through autoclaving (pressure-cooking) using over-heated steam. It is then chilled in ice cells and cooled into ice-blocks which are crushed and thawed. Water separates from gel during the thawing process. The gel mass is dried using warm air

Pharmacology:

Compounds:

- Heteropolysaccharides: made up of D-galctose and 3,6-anhydro-L-galactose components partially bearing sulfate or pyruvic acid residues, low-sulfate fraction designated agarose

Effects:

The drug has a laxative effect due to its ability, similar to that cellulose, to absorb and retain large quantities of that of cellulose, to absorb and retain large quantities of water and swell in the intestine. The mucilaginous substances cause an increase in the bulk of the content of the intestine that stimulates the intestinal muscles thereby aiding peristalsis

Storage:

Dried Agar can be kept tightly sealed for up to 5 years without being opened and tested.

Dosages:

Oral: 4-16 gms one or two times per day. Take each dose with at least 250 ml of water.

Comment: OTC products must be labeled “warning taking this product without adequate fluid may cause it to swell and obstruct the esophagus or throat and may cause choking”. Do not take this product if you have dysphagia, chest pain or vomiting and seek immediate medical attention

Interactions:

- With herbs and dietary supplements: insufficient reliable information available
- With foods and with lab tests: no interaction
- With diseases: contraindicated in bowel obstruction and dysophagia

Alfalfa

Synonyms:

Feuille Deluzerne, Luccrne, Medicago, phytoestrogen, purple Medick

Scientific name: Medicago Sativa

Trade names: Alfalfa, Alfalfa Concentrate, Alfalfa Fortified, Alfalfa Natural, Alfalfa Organics, Alfalfa Whole Juice concentrate, Alfamin

Description:

Medical parts: Is the whole flowering plant or the germinating seeds

Flower and fruit:

The clover-like flowers can be yellow to violet-blue. They are 9 to 10 mm long and appear in oblong many-blossomed racemes. The fruit is a spiraled pod with 2 or 3 twists; the center is hollow and not thorny

Leaves, Stem, and Root:

The annual, succulent plant grows from 45 to 100 cm high. The stems are erect, smooth and sharply angled. The leaves are trifoliate, petiolate and alternate. The leaflets are thorny-tipped, dentate toward the front, obviate and villous beneath. The stipules are ovule, lanceolate, slightly dentate and acuminate

Characteristics:

The taste is unpleasantly salty, bitter abd dry.

Habitat:

The plant is indigenous to the Mediterranean region and has been widely cultivated elsewhere for centuries

Production:

Pharmacology:

Compound: in the Foliage:

- Carotinoids: including among others, Lutein.
- Trirerpene saponins: sojasapogenols A-E aglycones medicagenic acid , hedragenin
- Isoflavonoids: including among others, formononetin glycosides, genistien, diaidzein.
- Coumestans: coumestrol, 3-methoxy coumestrol, lucernol sativol, trifoliol.
- Triterpenes: stigmasterol, spinasterol
- Cyanogenic glycosides: (corresponding to less than 80 mg HCN/ 100g)

Compounds: in the seeds:

- L-canavaine

    - Betaine: stachydrine, homostachydrine
    - Trigonelline
- Fatty oil

Effects:

The saponin contents act on the cardiovascular, nervous and digestive system. It decreases plasma cholesterol by decreasing its absorption and increase excretion of neutral steroids and bile acids. Its manganese content may possess hypoglycemic action. Medicagol content has antifungal properties. It also contains coumetral, genistein, biochanin A and daidzein which all seem to have estrogenic properties

Adverse reaction:

- Allergies
- Photosensitivity
- Ground seeds may produce pancytopenia

Dosages:

Oral: 5-10gms or as steeped strained tea three times daily
Liquid extract (1:1 in 25% alcohol) 5-10 ml three times daily.

Interactions:

- Excessive use of herbs contain vitamin K can increase the risk of clotting in people using anticoagulants
- It may interfere with anticoagulant therapy, oral contraception's
- It is possibly safe during pregnancy and lactation when used in food amounts. Avoid amounts in excess due to its estrogenic constituents

Aloe

Synonyms:

Aloe barbadensis / Capensis / Vera

Scientific name:

Aloe Vera, aloe brbadensis, aloe feox, aloe africana, aloe spicata

Family: Lilicaceae

Reported uses:

- For evacuation relief in anal fissures after recto-anal operations
- In European folk medicine, it employed to influence digestion
- In Chinese medicine includes gastric tumors, constipation, calic skin diseases, amenorrhea, worm infestations and infections

Description:

The medicinal part of the plant is the dried juice of the leaves

Flower and fruit:

The inflorescence is forked once or twice and is 60 to 90 cm high. The raceme is dence, cylindrical and narrows toward the top. The terminal raceme is up to 40 cm high while the lower ones are shorter. The braces are white and the flowers are yellow, orange or red and are 3 cm long.

Leaves, Stem and Root: the lily-like succulklent – leafed roset shrub either does not have a stem or has a 25 cm stem. The lanceolate leaf is thick and fleshy, 40 to 50 cm long and 6-7 cm wide at the base. The upper surface is concave, gray green, often with a reddish tinge which appears in patches in the young plants. The leaf margin has a pale pink edge and 2 mm long pale teeth

Habitat:

It is thought to have originated in the Sudan and the Arabian Peninsula. To day the species is cultivated and found in the wild in northern Africa, the Near East, Asia and in the southern Mediterranean region. The plant is cultivated in subtropical regions of the United States and Mexico and on the Dutch Antilles and in Coastal regions of Venezuela.

Production:

Curacao Aloe consists of the dried latex of the leaves of Aloe barbadensis (Syn. Aloe Vera) as well as its preparations. Aloe is harvested from August until October. The Juice is dried using different methods

Pharmacology:

Compounds: Aloe Barbadensis

- Antheracene derivatives: anthrone-10-c-glycosyls including aloein A, aloin B, 7-hydroxyaloins A and 1, 8-dihydroxy ions including aloe-emodin, 6 cinnamic acid esters of these compounds.
- 2-alkylchromones: including aloe resins B, C and D.
- Flavonoids

Compounds: Aloe Capensis

- Anthracene derivatives: particularly anthrone-10-C-glycosyls, including aloin A, aloin B, 5-hydroxyaloin and dihydroxy anthraquinones including aloe-emodin and mixed anthrone-c and o-glycoside including aloinside A and B
- 2-alkylchromones: including aloe resins A, B, C and D
- Flavonoids

Effects:

Laxative effects:

Aloe anthranoids such as 1, 8-dihydroxy-anthracene derivatives exerts a laxative effect (irritant laxative). Absorption of electrolytes and water from the colon increase in its lumer volume that stimulates peristalsis. Laxative effect occurs 9 hours after its ingestion.

Antibacterial / Antiviral effects:

Aloe-emodin exerts dose-dependent growth inhibition of H. Pylori through inhibition of arylamine N-acetyltransferase (NAT) activity. It has also antibacterial antibacterial effects on 4 strains of methicillin- resistant staphylococcus aurous. It inactivates enveloped viruses and in directly viracidol to herpes simplex virus 1 and type 2, varicell-zoster virus, pseudorabies virus and influenza virus

Antineoplastic effects:

Emodin suppresses tyrosine kinas activity of HER-2 / neuencoded p 185 new receptor tyrosine kinas resulting in antineoplastic effects. This is beneficial controlling HER-2 / new over expressing cancer cells

Topical effects:

Aloe Vera depresses action potential generation and conduction at anti-inflammatory effects. Ultra violet radiation (UV) suppresses delayed type hypersensitivity by altering the function of immune cells in the cytokines. Extracts of crude Aloe barbadensis gell inhibits this photo suppression by suppression of delayed hypersensitivity responses and reducing the amount of kerationcyte derived immune suppressive cytokines (IL-2) aloe veragel contains small molecular modulators that prevent UVB- induced immune suppression in the skin on epidermal Langerhan cells.

It increases collagen content of the granulation tissue and its degree of cross linking to contribute to wound healing with anti-inflammatory effects. It use has been associated with a delay in wound healing compared to standard with a delay in wound healing compared to standard treatment.

The gel exerts anti-inflammatory activity through its inhibitory action on the arachidonic acid pathway via cyclo-oxygenase. Due to its anti-thromboxane effect, it decreases the morbidity of progressive dermal inchemia in frostbite. It contains a carboxypeptidase that inactivated bradykinin, salicylates and a substance that inhibits thromboxane formation

Indications and use:

- Psoriasis:

  Topical Aloe Vera extract 0.5% in hydrophilic base 3 times daily for 5 days per week with a maximum 4 weeks has high cure rate and clearing of the plaques

    - Radiation induced skin toxicity: also Vera gel does not protect against radiation dermatitis
- constipation

Contraindications:

It is contra indicated in intestinal obstruction, acute inflamed intestinal diseases e.g. corhn's disease, ulcerative colitis, appendicitis and undiagnosed abdominal pain

Adverse reaction:

- General: if colic occurs after single dose, the dose should be reduced. Cardiac arrhythmias, nephropathies and edema. Prolonged use may lead to pigmentation in the intestinal mucosa (pseudomelanosis coli) that reverses up on discontinuation of the drug. Prolonged use can also lead to albuminuria and hematuria
- Hypersensitivity: generalized eczematous and popular dermatitis after long-term use of oral or topical preparations
- Electrolyte loss particularly potassium after prolonged use
- Malignancy in colon after prolonged use of anthracene drugs
- Low molecular weight compounds in Aloe Vera gel are cytotoxic
- Tissue damage: chronic treatment with high doses of Aloe reduces vasoactive intestinal peptide and somatostatin levels which may damage enteric nervous tissue

Dosages:

Due to its side effects, it is rarely used and is not recommended.
Preparation: capsule 250 mg, 470 mg, cream, and gel: 99%, 72% soften gel 1000mg.
A stabilized a loe extract is prepared with water and will have a content of 20%
Daily dose is 20 mg hydroxy anthracene derivatives / day calculated as anhydrous aloin. The single dose is 50 mg powder in the evening

Special consideration:

- Storage should be protected from light and moisture
- The smallest dosage needed to maintain a soft stoal should be used. Stimulating laxatives must not be used as extended period of time (1-2 weeks) without medical advice

Interactions:

- Cardiac glycosides and antiarrhythonic drugs due to potassium loss

- Thiazides diuretics, loop diuretics, loop divertics, licorice and corticosteroids increase potassium deficiency when Aloe is used with these agents
- Pregnancy and lactation: Aloe should not be used
- Pediatric use: it should not be prescribed to children under 12 year of age.9

Althaea officinalis

Synonyms:

Moorish Mallow, cheeses, white maoow, Althea, Mortification Root, Sweet weed, Wymore, Mallards, Schloss Tea.

Scientific name:

Marshmallow

Unproven uses:

Oral irritation, pharyngitis, dry cough, gastritis, skin burns, insect bites, ulcers, abscesses, constipation and diarrhea.

Description:

Medicinal parts: are the mallow flowers, leaves, syrup and roots.

Flower and fruit:

The reddish-white flowers are in axillary or terminal clusters. The 6 to 9 sepals of the epicolyx are fused at the base, pointed and 8 to 10 mm long. There are 5 sepals, 5 heart-shaped pentals and numerous stamens fused together with the anthers to a column. The ovaries are in ring. There are numerous styles. The mericarps are smooth and downy. The 5 to 8 mm fruit is disc-like and breaks up into the mericarps which are downy on the outside and often have fine, branched and radiating ribs. The seeds are dark- brown, glabrous, kidney-shaped and compressed

Leaves, Stem and Root:

The 60 to 120 cm high, hardy, velvety plant has a thick erect root up to 50 cm long by a few cm with secondary roots. The erect, succulent stem is woody at the base, but unbranched. The leaves are short-petioled with an ovate, acute leaf-blaole. The secondary leaves are narrow and drooping. The lower leaves are 5-lobed and the upper cauline leaves are often triangular, wider than they are long and irregularly and roughly dentate.

Habitat:

The plant was originally indigenous to Asia and then spread westward to southeast Europe and eastward to China. It is established as garden plant

Production:

Althaea root consists of the dried root, unpeeled or peeled. The root cultures are harvested from October to November and after cleaning are carefully dried at a maximum temperature of 35^0 c. the leaves consists of the dried leaves. The leaves are dried at a temperature of 40^0c

Pharmacology:

Compounds:

- Mucilages: mixture of colloidally soluble polysaccharides particularly galacturonic rhamnons, arabinogalctans, arabans and glucans
- Pectins
- starch

Effects:

The drug alleviates local irritation, inhibits mucocibiary activity, stimulates phagocytosis, anti-inflammatory, anticomplementary agent immunostimulant and hypoglycemic.

Indications and use:

- Cough / bronchotos
- As a gargle for stomatitis and pharyngitis

Adverse reaction:

No health hazards are known with therapeutic dosages

Drug interactions:

The absorption of other drugs taken simultaneously may be delayed

Dosages:

Mode of administration:

Cut leaves for aqueous extracts and other preparations for internal use. Cut or ground root for aqueous extracts as well as other preparations for internal use. The syrup is to be used only for treatment of dry coughs.

Preparations:

Capsules 460mg, cough mixture, drops, liquid syrup (snail juice), powder and tablets (coated and uncoated)

To prepare a tea, use 10 to 15 g with 150 ml of cold water and allow to stand for 90 minutes, then warm to drink

Dose:

6 gm of the root and 5 gm of the leaf daily and syrup 10 gm. The tea dosage is several cups of warmed tea.

Storage:

The drug is protected from light and insects

Angelica

Synonyms: Angelicas fractus, Angelicae herba

Family: Apiaccae / umbelliferae

Scientific name: Angelica archangelica.

Description:

Medicinal parts are the seed, whole herb and root

Flower and fruit:

The flowers are greenish white to yellowish and are arranged in 20 to 40 rayed compact umbels without an involucre. The tiny epicalyx has numerous sepals with minute tips. The petals have an indented indistinguishable tip. The elliptic fruit is 7 mm long by 4 mm wide and winged. The outer fruit membrane separates from the inner one

Leaves, Stem and Root:

The plant is 50 to 250 cm tall. The rhizome is short, strong, fleshy and has long fibrous roots. The stem is erect, often as thick as an arm at the base. It is round, finely grooved, hollow and tinged reddish below. The leaves are very large, 60 to 90 cm and tri-pinnate with a hollow petiole. Leaflets are ovate and unevenly serrate. The leaf sheaths are large and swollen

Characteristics:

The plant has a strong tangy odor. The taste is sweetish to burning tangy.

Habitat:

Angelica is indigenous in Syria, Holland or Poland. Today, it is found growing in the wild on the coasts of the North and Baltic seas as far north as Lapland. Other species are found in America (A. atropurpurea), in Europe (A. Sylvester's) and in China / Asia (A. sinensis)

Production:

Angelica seed consists of the fruit of Anglica archangelica which is harvested from July onward. After drying in air or in ovens, the umbels are thresh separate the seeds. Angelica herb consists of the a ground parts of Angelica Archangelica. Angelica root dried root and rhizome of Angelica archangelica.

Pharmacology:

Compounds: Angelica Fruit:

- Volatile oil: constituents include hexylmethyl phth alph-pinene beta-phellandrene, borneol, camphene, bisabolene, beta-caryophyllene, macrocyclic lactones such as 15-oxypentadecenlactone.
- Furanocoumarins: angelicin, bergaptene, imperatorin, oxypeucedanin, xantholtoxin.

- Fatty oil
- Phytosterols: beta-sitosterol, sigasterol

Effects:

The furanocoumarins in the fruit are cytostatic, photosensitizer and photocarinogenic. The spasmolytic, gastric juice-stimulating and cholagage effect

Compounds: Angelica Leaves:

- Volatile oil (0.015 to 0.1%) : chief constituents myrcene to 29%, p-cymene, limonene, cis- and trans-ocimene, beta-phellandrene, alpha-pinene.
- Furanocoumarins: including angelicin, bergaptene, imperatorine, isoimperatorin, oxypeucedanin, archangelicin.

Effects:

The essential oils and furanocoumarins from the leaves has a strong initant effect on the skin and mucous membrane (angelica dermatitis). The spasmolytic, gastric-juice stimulant and cholagogic effect are due to the aromatic-amaroid structure.

Compounds: Angelica Root

- Volatile oil: chief constituents are alpha- and beta-phellandrene, alpha-pinenes, macrocyclic lactones, including heptadecanolide.
- Furanocoumarins: bergaptene, xanthotoxin, umbelleferone
- Caffeic acid derivatives: chlorogenic acid
- Flavonoids

Effects:

The root acts as an antispasmodic, cholagogue and stimulate gastric juice

Indications and use:

- Angelica Fruit:
  In fever, colds, urinary tract infection, dyspepsia and anorexia.
  Unproven uses: angelica seeds are used orally in urinary tract, diuretic, intestinal tract and respiratory tract disorders. It is used for rheumatic and neuralgic complaints as well as diaphoretic. Externally as ointment from seeds for body lice.
- Angelica root:
  In dyspepsia and anorexia topical: in psoriasis, vitiligo and premature ejaculation
  Unproven uses: mild rubefacient, for coughs, bronchitis, anorexia, menstrual disorders, intestinal colic and biliary disorders.

Adverse reaction:

- Photodermatitis and prolonged exposure to sunlight should be avoided (due to furocoumarins)
- Pregnancy and lactation: unsafe and contraindicated because they have uterine stimulant action

Dosages:

- Fruit and leaves: oral; one teaspoon of the powdered seeds or leaves in one cup of boiling water and drink as a tea once daily. As a tincture, one teaspoon up to twice a day.
- Root: oral 4.5 gm per day of the crude root for anorexia, mild gastrointestinal spasms and flatulence.

The dose of the tincture (1:5) is 1.5 gm per day

N.B. Do not store angelicas root preparations in plastic because plastic can react with the essential oil.

Interactions:

Fruit and leaves:

- With herbs and dietary supplement with anticoagulant / antiplatelet potential (see anise) increase the risk of bleeding
- With drugs: due to its stimulant action of gastric acidity, it may interfere with antacids, sucralfate, H_2 –antagonists or proton-pump inhibitors.

Anticoagulant: excessive doses potentiate anticoagulants

- No interactions with foods, lab tests and diseases

Root:

- With herbs and other dietary supplements that have coumarin constituents or affect platelet aggregation will increase risk of bleeding (see anise)
- With drugs: - Acid inhibiting drugs: due to claims that angelica increases gastric acidity
  - Anticoagulants; it potentiates their anticoagulant effects due to its coumarin constituents.

Anise

Synonyms:

Aniseed, Anisi Fructose, phytoestrogen, semen anisi, sweet cumin.

Scientific name:

Primpinella anisum

Family: Apiaceae or umbelliferae

Reported uses:

Orally, it is used for dyspepsia and as pediatric antiflatulent, expectorant, menstrual disturbance and liver disease.

Topically: for lice, scabies and psoriasis.

In folk medicine, it is used to increase lactation, induce menstruation, increase libido and alleviate the symptoms of male climacteric. For food, it is used as a licorice flavor substitute and as fragrance in food.

In manufacturing, it is used in soap, creams and perfumes as a fragrance

Description:

Medicinal parts: the medicinal parts are the essential from the ripe fruit and the dried fruit

Flower and fruit:

The inflorescences are medium-sized umbels with about 7 to 15 scattered pubescent rays. There are usually no involucres, but some times, there is a single bract. There are barely any sepals. The petals are white about 15 mm long and have a ciliate margin. They have small bristles on the outside and a long indented tip. The fruit is downy oval to oblong and flattened at the sides.

Leaves, Stem and Root:

The plant is an annual herb about 0.5 m high, it is downy all over the root is thin and fusiform and the stem is erect, round, grooved and branched above. The lower leaves are petiolate, orbicular-reniform, entire and coarsely dentate to lobed. The middle leaves are arbicular and 3- lobed or 3-segmented with ovate or obovate segments. The upper leaves are short petioled to sessile with narrow sheaths; they are pinnatisect with narrow tips.

Characteristics:

The taste is sweet and the odor characteristic

Habitat:

The origin of the plant is unknown but it probably came from the Near East. Today, it is cultivated mainly in Southern Europe, Turkey, Central Asia, India, China, Japan, Central and South America.

Production:

Anise consists of the dried fruit of pimpinella anisum.

Pharmacology:

Compounds:

- Volatile oil (2 to 6 %): chief constituent trans-anethole (94%) including as well chavicol methyl ether (estragole 2%, anis aldehyde (1.4%)
- Caffeic acid derivatives: including chlorogenic acid (0.1%), other caffeoxyl quinic acid.

    - Flavonoids: including apigenin-7-0-glucoside, isoorientin, isovitexin, and luteolin-7-0-glucoside.
- Fatty oil (30%)
- Protein substances (20%)

Effects:

The drug has an expectorant, mildly spasmolytic and antibacterial effect based on the essential oil. The data is experical and there are no recent studies available. Aniseed oil (main constituent trans-anethol) has an antibacterial, antiviral, insect repellent effect and in animals, it has been shown to be expectant, spasmolytic and estrogenic

Indications and use:

Common cold, caught / bronchitis, fever and colds, stomtitis, pharyngitis, dyspepsia and anorexia. It is used both internally for catarrhs of the respiratory tract

Adverse reaction:

- Allergies: in sin, respiratory and GI tract and photosensitivity in patients allergic to anise and anethole
- Large oses cause neurological effects
- Ingestion of 1-5 ml of oil cause nausea, vomiting, seizures and pulmonary edema

Dosages:

Oral: 0.5-1 gm of the dried fruit, 50 -200 ml of the essential oil or as a tea 3 times per day. The tea is prepared by steeping 1-2 teaspoons of the crushed seed for 10-15 minutes and then staining.

As an expectant, a cup of the tea is commonly taken in the morning and / or at night.

As an antiflatulent, one tablespoon of the tea is usually taken several times a day.

For nursing babies and infants, dose is one aespoon of the tea.

Interactions:

- Herbs with anticoagulant / antiplatelet potential increase the risk of bleeding e.g. angelica, arnica, asafetida, bogbean, boldo, capsicum, celery, chamomile, clove, dansken, fenugreek, feverfew, garlic, ginger, ginseng, horse chestnut, horseradish, licorice, meadowsweet, prickly ash, onion, papain, passion flower, poplar, quassia, red clover, turmeric, wild carrot, wild lettuce, willow, ……etc
- Excessive doses interfere with anticoagulant therapy, monoamine oxidase inhibitors and hormone therapy.

- It may increase blood pressure (catecholamine activity) of anethole. It increase heart rate and prolong coagulation time due to coumarins
- Liely safe in amounts found in food.
- Possible unsafe when applied topically because it contains caumarin constituents that cause photosensitivity reactions. The constituents bergapten is believed to be carcinogenic
- Likely unsafe when the undiluted oil is ingested because 1-5 ml can cause nausea, vomiting, seizures and pulmonary edema
- Pregnancy: likely safe when used in food amounts. Possibly unsafe when used in larger amounts because it might have abortifacient activity
- Lactation: likely safe in food amount and excessive amounts are avoided due to its content of anethole and estragole (structurally similar to safrole) while is hepatotoxin and carcinogen

Apium graveolens (Celery)

Synonyms:

Ache des Marais, Apii Fractus, Celery Fruit Celery seed, Fruit de Celeri, Smallage, Selleriefruchte, Selleriesamen.

Scientific name: Apium graveolens.

Family: Enbelliterae / Apiaceae

Reported uses:

Orally it is used to treat rheumatism, goit, hysteria, nervousness, headache, weight loss due to malnutrition, anorexia and exhaustion. It is also used as sedative, mild diuretic, urinary antiseptic, antifluatulent, aphrodisiac and reduces lactation

Safety:

- The maximum use of celery seed oil in food is 0..5% in condiments and should not used in renal infections due to irritant volatile oil
- Possibly safe when used orally in medicinal amounts
- Likely unsafe when the oil or seeds are used orally in large amounts in pregnancy because it has uterine stimulant action.
- Lactation likely safe when consumed in food amounts

Effectiveness:

Description:

Medicinal parts are the root, above ground foliage and stems, the fruit (seeds) of the plant and the oil extracted from the seeds.

Flower and fruit:

The umbels are greenish-white, small, 6 to 12 rayed, star-shaped and splayed. Some umbels are top-heavy, short petiole or sessile and some are terminal and more or less long-petiole with no involucres. Petals are unusually 0.5 mm, white or greenish to yellowish, cordate at the base and have indented tip. The fruit is almost spherical and somewhat compressed at the side. The 5 mm mericaps are rounded in section. They are 5-cornered with five equal weakly protruding, bow-shaped main ribs. The edge of the ribs from the edge of the mericaps. The fruit axis is bristly and slightly crenate at the tip

Leaves, Stem and Root:

The glabrous plant is a biennial and reaches a height of 30 to 100 cm. The root of the wild variety is fusiform about 5 to 7 mm thick, branched and becomes woody in the second year. The root of the cultivated variety is fleshy roundly tuberous and reaches a diameter of over 15 cm.

The stem is erect with edged grooves, often hollow and branched. The leaves are glossy and rash green, the basal and lower cauline leaves are more or less long- petioled and pinnatifid. The upper cauline leaves are sometimes opposite. They are short white-membrane-edged sheaths and are almost sessile and tri-pinnate. The lower leaves are roundish almost blunt at the base with broad, lozenge-shaped, indented- serrate, blunt and short-thorned tips. The upper leaves are wedge-shaped and acuminate, also 3-lobe or pinnate or lanccolate and entire-margined

Characteristics:

The plant has a strong odor

Habitat:

Celery is found in Europe from England and Lapland to southern Russia. The plant also grows in western Asia as far as eastern India, in northern and southern Africa and South America, Mexico and Argentina.

Production:

Celery seed consists of the fruit of Apium graveolons, celery herb consists of the fresh or dried above ground parts of the plant and celery root is the plants fresh or dried underground parts

Pharmacology:

Compounds: celery seed (fruit):

- Volatile oil: (+)- limonene, beta-selinen, phtholides among them 3-butyliden phthalide, 3-butylphalide, 3-isovaleryliden-3a, 4-dihydrophthalide, 3- isobutyliden phtholide, sedanoid, neocnidilid.
- Flavonoids: graveobioside A and B, apiin, isoqiqueritrin
- Furocoumarins: bergapten, isoimperatorin, isopimpinellin
- Fatty oil

Effects: (celery fruit)
In animals, it has sedative and anticonvulsive actions with mild inhibition on bacteria and fungi (presence of essential oil)
Compounds: (celery Herb)

- Volatile oil: (+)- limonene, myrcene, beta-selinene, alpha-terineol, carveol, dihydrocarvone, geranyl acetate, phthalides (3-butyliden phthalid, 3-butylphthalide, 3- isobutyliden phtholid)
- Flavonoids: apiin, luteolin-7-o-apiosyl glucoside, chrysocroil glucoside
- Furocoumarins: bergapyene, xanthotoxin, isoimpinellin
- Caffeic acid derivatives: chlorogenic acid

Effects: (celery herb)
In animals, it has a sedative and anticonvulsive effect with mild antibacterial and antifungal actions (due to the essential oil)
Compounds: (celery root)

- Volatile oil: (+)- limonene, beta-pinene, p-cymene, cis-3-methyl-4-ethyl-hexane, phthalides (3-butyliden phthalid, 3-butylphthalide, ligustilid, neocndilid)
- Flavonoids: apiin, luteolin-7-o-apiosyl glucoside,
- Furocoumarins: bergaptene
- Polyyne: falcarinole, flacaridiol

Effects: (celery root)
In animals, it has a sedative and anticonvulsive effect with mild antibacterial and antifungal actions

Adverse reaction:

- It causes allergic dermatitis and anaphylactic reactions. cross-allergy between celery and pollen, carrots, dandelion or wild carrot
- Large amounts of celery seed oil can induce CNS depression
- Contact with the stems could lead to photosensitivity

Dosages:

Oral: 0.5-2 gm of dried fruit three times daily or one cup of prepared tea (1 gm dried fruit in 150 ml, boiling water 5-10 minutes and strain) three times daily

Liquid extract (1:1 in 60% alcohols) 0.3-1.2 ml. Three times daily
It is available in capsule form containing 450 or 505 mg of oil

Storage:

Celery root should be kept sealed away from light and moisture

Interactions:

- With herbs and dietary supplements that have, sedative action might enhance therapeutic and adverse effects. These include calamus, calendula, California poppy, catnip, capsicum, couch grass, elecampane, ginseng Siberian, German chamomile goldenseal, gout kola hops, Jamaican dogwood, kava, lemon balm, sage, St, Johns wart, sassafras, skullcap, shepherds purse, sting nethle, valerian, wild carrot, wild lettuce, withania root and yerba mansa.
  Herbs with conticoagulant / antiplatelet potential increase the risk of bleeding (see Anise)
- Drugs with sedative effect cause additive effects
- It might increase the phototoxic response to PUVA therapy due to its psoralen content.
- No interactions with foods and lab tests
- Contraindicated in renal disorders

Alpinia

Synonyms:

Catarrh Root, China Root, Chinese Ginger, colic Root, East India catarrh Root, East India Root, Galangal, Gargaut, India Root, Rhizome Gaiangoe

Scientific names: Alpinia offcinonum.

Family: zingiberacceae

Reported uses:

Orally, alpinia rhizome is used as an aromatic, stimulant, antiflatulet, antibacterial, antispasmodics, anti-inflammatory and antipyretic.

Safety:

- Likely safe
- Pregnancy and lactation: avoid using

Description:

Medicinal parts: of the plant is the Rhizome

Flower and fruit:

Galangal is a perennial plant. It is similar in appearance to the sword lily

Leaves, Stem and Root:

Lesser Galangal has a dark, reddish-brown, cylindrical rhizome about 1 to 2 cm in diameter and 3 to 6 cm long. The stem is marked at short intervals with raised rings, which are the scars of the leaf bases. The stems are up to 1.5 m with long narrow lanceolate leaves bearing racemes of orchid-shaped flowers, white and veined red. A fracture of the rhizome is hard and tough, showing a pale inside with a darker central column.

Characteristics:

Lesser Galangal has a pungent and spicy taste. The odor is aromatic rather than ginger.

Habitat:

The plant is in digamous to china and entered Europe via India and Arabia in the middle ages.

Production:

Lesser Galangal consists of the dried rhizome of Alpinia officinarum not to be confused with the rhizome of kaempferia galangal and other Alpina species.

Pharmacology

Compounds:

- Volatile oil: sesquiterpene hydrocarbons, sesquiterpene alcohols
- Diarylheptanoids: mixture termed galangal, some of them pungent substances
- Gingerole: phenyl alkanones, pungent substances
- Starch
- Flavonoids: galagin, galangin-3-methylether, kaempferide.

Effect:

The plant is said to have antispasmodic, antiphlogistic and antibacterial properties

Uses:

Dyspepsia, anorexia.

Adverse reaction: None reported

Dosages:

Oral: 2-4 gm of the herb per day or one cup of tea 30 minutes before meals. Tea is prepared by heating 0.5- 1 gm for 10 minutes in 150 ml of hot water and then straining

Interactions:

- With herbs and other dietary supplements: none
- With acid-inhibiting drugs: because it increases gastric acidity
- With foods, lab tests and with diseases: no interaction

Arnica

Synonyms:

Arnica Floss, Arnica Flower, Arnikabluten, Bergwahlverleih, flours d Arnica, Kraftourz, Leopard's Bane, Mountain Tobacco, Wolf's Bane, wondrous.

Scientific name:

Arnica Montana, Arnica fulgent, Arnica soroia, Arnica latifolia, Arnica cardiofolia.

Family: Asteraceae or compositae.

Reported uses:

Topically, it is used for inflammation and immune system stimulation associated with bruises, aches and sprains, for oral inflammation, insect bites and phlebitis. For food uses, it is a flavor ingredient in alcoholic beverages, non-alcoholic beverage, freeze diary desserts, candy, baked goods, gelatins and puddings.

In manufacturing, it is used as hair tonic and anti-dandruff preparations. The oil is used in perfumes and cosmetic preparations.

Safety:

- Possible safe: as flavoring with maximum level 0.03% and for topical use for short-term therapy
- Likely unsafe: when taken orally. It is considered poisonous: cardio toxic and hypertensive. It irritates mucous membranes, cause gastroenteritis, myoplegia, palpitations, dyspnea and death.
- Pregnancy and lactation: likely unsafe and avoid using.

Description:

Medicinal parts:

The medicinal parts are the ethereal oil of the flowers, the dried flowers, the leaves collected before flowering and dried, the roots and the dried rhizome and roots.

Flower and fruit:

The terminal composite flower is found in the leaf axils of the upper pair of leaves. They have a diameter of 6-8 cm, are usually egg yolk- yellow to orange- yellow but occasionally light yellow. The receptacle is ligui- form. There are about 100 disc flowers, which are tubular. The 5-ribbed fruit is black-brown and has bristly tuft of hair

Leaves, Stem and Root:

Arnica is an herbaceous plant growing 20-50 cm high. The brownish rhizome is 0.5 cm thick by 10 cm long usually unbranched, 3-headed with many yellow-brown secondary roots. Leaves which are ovate to lanceolate entire-margined or somewhat dentate

Characteristics:

The flower heads are aromatic, the taste is bitter and irritating.

Habitate:

It is found in Europe from Scandinavia to southern Europe. It is also found in southern Russia and central Asia.
Not to be confused with other yellow-flowering Asteracea.

Production:

Arnica flower consists of the fresh or dried inflorescence of Arnica Montana or Arnica chamissonis. The flower should be dried quickly at 45^0 to 50^0c.

Pharmacology:

Compounds

- Sesquiterpene lactones of the pseudo-guaianolid-type: particularly esters of the helenalin- and 11, 13- dihydrohelenalins with short-chained fatty acids such as acetic acid, isobutyric acid or tiglic acid
- Volatile oil: with thymol, thymol esters, free fatty acids
- Polyynes: with thymol, esters, fatty acids
- Polyynes: including tri-dec-1-en-penta- 3,5,7,9,11- in
- Hydroxycumarines
- Caffeic acid derives: including chlorogenic acid, 1,5- dicaffeoyl quinic acid.
- Flavonoids: numerous flavones and flavonol glycosides and theiraglyycones.

Effects:

Arnica preparations have an antiphlogistic, analgesic and antiseptic effect when applied topically due to the sesquiterpene lactones polyynes may be involved. In cases of inflammation, arnic pepeparations also show analgesic and antiseptic activity. The sesquiterpenes (helenalin) in the drug have an antimicrobial effect in vitro, and an antiphlogistic effect in animals.
A respiratory analeptic, uterine tonic and cardiovascular effect (positive entropic action)

Indications and use:

- Fever and colds
- Dermatitis
- Rheumatism

    - Cough / bronchitis
    - Stomatitis and pharyngitis
- Blunt injury
- Tendency to infection

Storage:

The drug should be tightly sealed and protected from light

Adverse reaction:

- It causes allergic reaction in individuals sensitive to the Astraceae / Compositae family e.g. ragweed, marigolds, chrysanthemums, daisies, skin rash, itching, blisters, ulcers… etc
- Orally it causes irritation of mucous membrane, drowsiness, gastritis, vomiting, diarrhea, tacky cardiac, dyspnea, coma and death.
- Topically. It causes contact dermatitis and mucositis

Dosages:

Topical: 2 gm of the flower heads in 100 ml water. For a poultice, tincture is diluted 3 to 10 times. Mouthwash should not be swallowed. Ointments have 20-25% of the tincture or 15% of the oil.

The tincture is 1:10 dilution and the oil is made 1 part herb extract to 5 parts vegetable fixed oil

Interactions:

- With herbs and other dietary supplements that contain coumarin, constituents cause risk of bleeding (see Anise). Also it potentiates anticoagulants and antiplatelet drugs
- No interactions with disease: avoid use in broken or damaged skin and in gastrointestinal diseases e.g. infections or inflammation

Artemisia Vulgaris

Synonyms:

Fleon Herb, St. John's plant, wormwood

Scientific name:

Mugwort

Unproven uses:

In gastro intestinal disorders, gastric ulcer, indigestion, epilepsy, vomiting, sedative, menstrual disturbance, as a tonic psychoneurosis, depression, hypochondria, restlessness, insomnia, anxiety and for ulcers and burns.

Safety:

Effectiveness:

Description:

Medicinal parts: are the root and the aboveground parts particularly the dried branch tips

Flower and fruit:

The flower heads are ovoid, 3 to 4 mm long by 2 mm wide. The numerous flowers are short- stemmed, erect or slightly drooping. They are the dense, heavily branched panicles with numerous lanccolate bracts. The bracts are downy white with a green midrib. The inner bracts are lanceolate and acuminate. The outside ones are oblong and obtuse with brood membranous margin. The flowers are oblong and obtuse with broad membranous margin. The flowers are yellowish or red-brown and glabrous. The inner flowers are androgynous and those on the outside are female. The receptacle is glabrous. The fruit has an indistinct margin.

Leaves, Stem and Root:

The plant is a long- stemmed 70 to 150 cm high shrub with a branched, many-headed and creeping rhizome without runners or rosette. The shoots are slightly pubescent, often red-tinged and have a weak unpleasant smell. The erect or ascending, edged, coriaccous stems die off each year. They are in branched panicles and downy. The leaves are 5 to 10 cm long, curvaceous and the margins are often rolled back, the upper surface is usually dark green and glabrous, pubescent and the lower surface is tomentose. The basal leaves are short petioled and lobed with an end section and 1 to 2 pairs of small side leaflets. The rest of the leaves are double-pinnate, the middle and upper ones are pinnatifid and lancolate acuminate, entire-margined or slightly serrated

Characteristics:

It has a pleasant tangy taste. The root is sweet and pungent, the herb is aromatic and bitter

Habitat:

The plant is indigenous to Asia and North America and is distributed all over Europe except in the south

Production:

It consists of the above ground parts of Artemisia vulgaris. The branch tips are gathered during the flowering season and carefully dried. Other fresh above- and underground parts of the plant are harvested at the beginning of winter, primarily from the wild. The root consists of the belowground parts

Pharmacology:

Compounds:

    - Volatile oil: 1,8- cineol, camphor, linalool or thujone,
    - Sesquiterpene lactones: vulgarin, pilostchyin, pilostachyin C
- Lipophilic flavonoids
- Polyynes
- Hydroxycoumarins: umbelliferone, acsuletin

Effects:

The aqueous extract and essential oil show antimicrobial effect

Contraindication: during pregnancy

Adverse reaction:

- No health hazards are known with the designed therapeutic dosages
- Allergic manifestation in skin

Dosages:

The leaves are ground with water in a motor and after removal of the larger remnants, small cones are formed and dried to be later burnt onto the skin.
Tea is prepared by allowing, teaspoonful to draw in 150 to 200 ml boiling water for 10 minutes.
A liquid extract is prepared in a 1:1 proportion from a mixture of the drug in 25% ethanol
Dose:
An infusion (drug 0.5 to 2 g) is given 3 times daily. Usual dosage of tea is one cup 2 or 3 times daily.
Dose 5 drops, one tablet, 10 globules every 30 to 60 minutes (acute) or 1 to 3 times daily (chronic)
Parenteral S.C 1 to 2 ml 3 times daily.

Artichoke

Synonyms:

Alcachofa, Alcaucil, Antichaut Common, Antischocke, Cardio, Cardio de Comer, Cardon d Espagne, Cardoon, Garden Artichoke, Gemuseartischocke, Globe Artichoche, Kardone, Tyosen-Azamic

Scientific name:

Cynara scolymus, Synonym Cyhara cardunculus.

Reported uses:

- Orally, it is used for dyspepsia, dylipidemia and nausea. It is also used as a diuretic and cholertic

- In food, the leaves and extracts are used as flavoring agents in beverages. The constituents, cynarin and chlorngenic acid are used as aweereners
- Traditionally, it is used for heating renal insufficiency, hepatoprotection, stimulating liver function, prevent gallstones, as gypoglycemic, diuretic and a tonic.

Safety:

- Likely safe: when used orally in amounts used in food and in alcoholic beverages (16ppm).
- Possibly safe: when used orally in therapeutic amounts.
- Pregnancy and lactation: likely safe orally in amounts in food and avoid using in therapeutic amounts due to lack of reliable information

Effectiveness:

Possibly effective when used orally in dyspepsia. Both the leaf and leaf extract are used. It reduces symptoms as nausea, vomiting flatulence, idiopathic and biliary disease.

Description:

Medicinal parts: are the dried whole or cut basal leaves and the dried or fresh gerb from the artichoke

Flower and fruit:

Globose, thorny capitual of lingual florets grows at the end of the stem. The epicalyx is ovate to globose. The bracts are fleshy and taper into a flattened greenish or purple tip. The petals are blue, lilac or white. The fruit is a pubescent achaene 4 to 5 mm in diameter and 7 to 8 mm long. It is flecked brown and glossy.

Leaves, stem and root:

Cynara scolymus is a perennial plant with a short rihizome and a strong, erect, glabrous stalk. The stalk is up to 2 m high, thickly covered in lanceolate, prickly pinnate to double pinnate leaves. The upper surface is bare and light green, the lower durface is gray and tomentose.

Habitat:

The plant is found in the medeterrnean region, the Canary Islands and South America. It is cultivated elsewhere

Production:

Artichoke root is the dried root of cynary scolymus. Artichoke leaf consists of the fresh or dried basal leaves of cynara scolymus. Artichoke is cultivated and dried with extreme care.

Pharmacology:

Compounds: Artichoke leaf

- Caffeic acid derivatives: chlorogenic acid, neochlorogenic acid, cryptochlorogenic acid, cynarin.
- Flavonoids (0.5%): in particular rutin
- Sesquiterpene lactones (0to 4%): cynaropicrin, dehydrocyanaropicrin, grossheimin, cynaratriol.

Compounds: artichoke root

- Caffeic acid derivatives, including chlorogenic acid sesquiterpene lactones, are not contained in the rhizome.

Effects: leafe and root

The main active principles are sesquiterpenes (amaroids) hydroxyl cinnamic acid and flavonoids. The drug has a cholajogic, hepatotoxic and lipid-lowering effect. A choleretic effect has been observed in rats 9effect of the cinnamic acid). The cholesterol levels were reduced and hepatostimulating and bitter effect on the gastrointestinal tract has also been documented

Indications and use:

Artichoke leaf:

In hepatic and gall-bladder disorders and anorexia. Artichoke leaf and root is contracidicated in bile duct obstruction and colic can occur where the patient suffers from gallstone

Storage:

It should be protected from light and insects in well-sealed containers

Adverse reaction:

- Allergic contact dermatitis due to cynaropicrin.
- It can cause allergic reaction in individuals sensitive to the Asteraceae / compositae family e.g. ragweed, chrysanthemums, marigolds, daisies and many other herbs

Dosages:

Oral: stem or root 1-4 gm three times daily – dried leaf is 2 gm three times daily. Typical of 12:1 dry leaf extract is 500 mg daily. As hypocholesterolemic, cyanarin 60-1500 mg per day.

Interactions:

- No interactions with herbs, dietary supplements, drugs, food and lab tests.
- With disease e.g. bile duct obstruction and gallstones by increasing bile flow

Asa Foetide

Synonyms:

Asafetida, Asa Foetida, Assant Devil's Dund. Food of the Gods, Fum, Gient Fennel, Heeng

Scientific name:

Ferula assa-foletide, Ferula foetida, Ferula rubricaulis

Family: Apiaccae / umbelliferae

Reported uses:

- Orally, it is used for chronic bronchitis, asthma, pertussis, hoarseness, hysteria, flatulent colic, chronic gastritis, dyspepsia, irritable colon, convulsion and intestinal parasites
- Topically, it is used for corns and colluses
- In manufacturing, it is used as fragrance in consmetics and as a favoring ingredient in foods and beverages

Description:

Medicinal parts: is the oily gum-resin extracted from the plant

Flower and fruit:

The flowers oppear after 5 years in yellow umbels on a 10 cm thick naked stem. They are numerous, pale greenish- yellow to white. The fruit is ovate, flat, thin, flaky, reddish-brown with distinct oil markets

Leaves, Stem and Root:

The plant is a herbaceous monoecious perennial, 1.5-2 m high with a large fleshy rhizome, which is 14 cm thick at the crown. The leaves are large, bipinnate and radical.

Characteristics:

The fruit has milky juice and a strong smell

Habitat:

Afghanistan and Eastern Iran

Production:

Asa foetida is the gumresin of ferula foetida

Pharmacology:

Compounds:

- Volatile oil: chief constituent is sec-propenyl-isobutyl di sulphide.

    - Gum resin: ferulic acid esters, farnesiferol A,B,C and bassorin-like mucilage
- Sesquiterpenoide coumarins including asafoetida

Effects:

Asa foetida has a mild intestinal disinfectant effect, its sedative effect is uncertain. Experimental in animals, it has antitumoural and mild mutagenic effect on salmonella typhimurium

Safety:

- Likely safe: when used in amounts found in food in less than 0.004%
- Possibly safe: when used orally in appropriate amounts. It is avoie in conditions that could result in convulsions.
- Children: unsafe as it may resuly in methemoglobinemia
- Pregnancy: unsafe as it may lead to abortion (not used)
- Lactation: unsafe due to risk of methemoglobinemia in infants.

Adverse reaction:

- Allergies e.g. swelling of lips, contact dermatitis
- 50-100 mg orally causes convulsions
- Methemoglobinemia in infants
- Belching, flatulence, diarrhea, headache or convulsions
- Swelling of genital organs after external use on abdomen

Dosages:

Oral: 300-1000 mg powderd resin three times daily

Tincture 2-4 ml or 20 drops as asingle dose

Preparation of Gum-resin is obtained by increasing the roots which contain a fetid juice. This solidifies to a brown resin, sometimes with a pinkish tint in sticky lumps. The final product has a pungent, acid, persistent, alliaceous odor.

Interactions:

- With herbs and dietary supplements that have coumarin constituents or affect platelet aggregation, increase the risk of bleeding.
- With drugs: anticoagulants and thrombolytics increase risk of bleeding
- No interactions with foods or lab tests
- With diseases: bleeding disorders, it increases the risk of bleeding. Gastrointestinal irritation due to infections or inflammatory conditions. It interferes with blood pressure ontrol in hypertensives or hypotensives

Astragalus

Synonyms:

Beg kei, Bei Qi, Buck Qi, Huang Qi Hwanggi, Membranous Milk Vetch, Milk Vetch, Monogolian Milk, Ogi

Scientific name:

Astragalus membranaceus, Astragalus monghelicus.

Family:

Leguminosae or Fabaceae

Reported uses:

Orally: in common cald, upper recpiratory tract infections, stimulate immune system, wqith oncotherapy, diabetetes, chronic nephritis. It is used as tonic, liver protection, anti inflammatory, anti-oxidant, dirretic and viral infection.
Topically: it is used as vasodilator an to speed healing

Description:

Medicinal parts: of the herb are the roots
Flower and fruit:
The flower racemes are apical and most are axillary. The inflarescenses have many small blue-purple or blue-purple flowers. Two or three days following bloom, pods will develop in a square shape of a cross section with two chambers. There are 10 dark brown seeds in each chamber. The seeds are 6 to 13 mm long.
Leaves, Stem and Root:
The plant is a perennial and has several stems 1.5 to 2 m in hight. The stems are coverd with pinnate leaves with T-shaped soft hairs. The primary root is thick, long and contains many lateral roots. There is secondary root begining 20 to 30 feet below the soil surface.

Characteristics:

The plant is cold tolerant and also able to grow in high temperatures.

Habitat:

Astragolus australis is an endemic plant of the Olympic Mountains, Washington. Other species are grown in northern and southern parts of China, Japan and Korea

Pharmacology:

Compounds:

- Trirerpene glycosides: brachyosides A,B and C and cyclocephaloside II, astrachry soside A.
- Saponins: astragalosides I, II and IV, isoastragaloside soyasaponine I and cycloastragenol
- Tragacanth (from the sop)

- Sterols: daucosterol and beta-sitosterol
- Fatty acids: heptenoic acid, tetradecanoic acid, pentadecanoic acid, hexadecanoic acid, octadecanoic acid, octadecanoic acid, octadecadienoic acid, linolenic acid, cicosanoic acid, cicosenoic acid and docosanoic acid

- Isoflavonoid compounds: astrasie versianin xv (II), 7, 2-dihydroxy -3, 4-dimethoxy –isoflavane -7- o-beta-D- glucoside
- Amino acids: gamma-L-glutamyl-se-methyl-seleno-L-cysteine, Sc-methylsteleno-L-cysteine
- polysaccharides

Effects:

- Antiviral: astragalus membranaceus inhibits the replication of coxsackie B-3virus (CB3V)-RNA, avirus that caused myocarditis in animal models
- Antioxidant: it inhibits lipid peroxidation in rat heart mitochondria
- Cardiovascular effects: it increases cardiac out put in patients with angina pectoris. Astragalosie IV imporves left ventricular end diastolic volume, left ventricular end-systolic volume and slows heart rate in heart failure. The compound also alleviates chest distress and dyspnea associated with heart failure. The herb has therapeutic effects on sodium and water retention improving cardiac and renal functions in heart failure. The mechanism is partly through correction of abnormal mRNA expressions of hypothalamic arginine vasopressin system and aquuaperin-2 and amelioration of blunted renal response to atrial natrioretic peptide

- Fibrinolytic: astragaloside IV increases the fibrinolytic potential of endothelial cells by uprequlating the expression of tissue-type plasminogen activator and downregulating the expression of plaminogen activator inhibitor type I

- Gastrointestinal effect: the herb increases smooth muscle tone in jejunum and increase intestinal movement

- Hepatoprotective: an ethanol extract of the root of Astragalus membranaceus alleviates liver injury through reduction of elevated SGPT levels and subacute toxicity

- Immuno-modulating: the herb stimulates macrophages, promotes antibody formation and increases Tlymphocyte psoliferation. F3, an immunoregualtory component of the herb reverses macrophage suppression induced by urological tumors. It also potentiates lymphokine activated killer (LAK) cell cytotoxicity generated by low-dose recombinant interleukin-2 (rIL-2).

- Memory improvement: a reduction in errors and prolonged latent period

Adverse reaction:

General:

Caution should be taken with patients resiving immunesupperssive therapy e.g. transplant patients or patients with auto immune diseases

Neurological dysfunction:

Due to the selenium content in astragalus, toxic doses may result in neurological dysfunction leading to paralysis.

Anticoagulants / antiplatelets / antithrombotic agents:

Due to the increased fibrinolysis effect of astragaloside IV concomitant use of anticoagulants, antiplatelets and antithrombotic agents may potentiate the risk of bleeding.

Allergies may occur

Dosages:

Oral powder 9-30 gms per day. In serious conitions, powder 30-60 gms per day is used. Dose of 4-7 gms of powder per day for 70 kilogram is optimal immune stimulation. Decoction 0.5-1 Lper day (120 gm of whole root per liter of water). As a soup mix 30 gm in 3.5 L of soup and simmer with other food ingredients. Capsulues 200 mg, 250 mg, 400 mg, 450 mg, 470 mg, 500 mg, 520 mg. liquid and tea bag

Interactions:

- It may not used with other herbs
- With drugs: acyclovir, concurrent use results in additive antiviral effects
  Immunosuppressants: concurrent use interferes with immunosuppressive therapy and avoid concurrent use.
  Cyclophophamide, it reduces immunosuppression of cyclophosphamide
- No interactions with foods or with lab tests

- With diseases: it interferes with immunosuppression therapy in organ transplant recipients. It increases immune system activity and may not be appropriate in autoimmune disorders

Avena sativa

Scientific name:

Oats

Synonyms:

Wild oats, Oat Bran, Oatstraw, Grain, Groats, Oatmeal, Straw.

Unproven uses:

Wild oat herb is used in acute and chronic anxiety, atonia of the bladder, connective tissue deficiencies, excitation, gout neurasthenia, geriatric symptoms, tobacco withdrawal, rheumatism, insomnia, stress and skin disorders.

Oat fruit is used in gastrointestinal, gallbladder, renal and cardiovascular disorders, in conistipation, diabetes, diarrhea fatigue, rheumatism and throat complaints.

Oat straw is employed externally for seborrheic skin itchy disorders, for abdominal fatigue, rheumatic disorders, eye diseases frostbite, gout, impetigo and metabolic diseases. It is also used as a tea for flu and coughs

Description:

- Medicinal parts: are the fresh or dried above-ground plant, the ripe, dried fruits and the dried threshed leaf and stem.
- Flower and fruit: the spikelet has 2 to 3 flowers. The outer glume has no awn,is 18 to 30 mm long and has 7 to 11 ribs. The top glumes grow from 12 to 24 mm long, have 2 divisions and a dentate tip. They have 7 ribs and can either be awned or unawned. The awn is 15 to 40 mm long and are thickly ciliate on the short ridge. The 3 stamens are 2.5 to 4 mm long. The ovary has a pinnatified stigma. The fruit is 7 to 12 mm long, narrowly elliptoid and pubescebt
- Leaves, stem and root: oat is a light-green annual grass with a bushy root. The stalks are 60 to 100 cm high, smooth and glabrous. The linear-lanceolate tapering, flat leaves are in double rows and the leaf sheath is clasping. The ligula is short and ovate with triangular pointed teeth. The leaf blade is linear-lanceolate and is 45 cm long by 5 to 15 mm wide.
- Habitat: oats originated in England, France, Poland, Germany and Russia and now cultivated worldwide.

Production:

Wild oat herb cosistes of the fresh above ground parts which are harvested shortly before the height of the flowering season and then quickly dried. Oats consists of the ripe dried fruits. Oat bran is taken from the outer layer of the hunked fruit. To make rolled oats, the husked fruit is treated with steam, then crushed. Oat straw consists of the dried threshed leaves and stem also harvested shortly before the hogher of the flowering season.

Pharmacology:

Compounds: Oat Herb

- Soluble oligo – and polysaccarides: saccharose, kestose, neoestose, bifurcose, beta-gluctoarabinoxylans
- Silicic acid (partially water soluble)
- Unusual amino acids: avenic acid A and B
- Flavonoids: vitexin-, isovitexin-, apigenin, isoorientin-, tricinglycosides

Effect (Oat Herb):

It may lower uric acid level and antihepato toxin (in animal experiments)

Compounds: (Oat Fruit)

- Starch
- Soluble polysaccharides: beta-glucans and arabinoxylans
- Proteic substances: gliadin, avenin, avenothionine
- Peptides: alpha-avenothionine, beta-avenothionine
- Steroid saponon: avenacoside A and B
- Sterols: beta-sitosterol, delta-5-avenasterol
- Fatty oil
- Vitamins of the B-group
- Amines: gramine

Effect (Oat fruit):

Hypocholesterolemis and block prostaglandin hiosynthesis cholesterol lowering effect is due to polysaccharides (beta-glucans)

Compounds: (Oat straw)

- Soluble oligo – and polysaccarides: saccharose, kestose, neoestose, bifurcose, beta-gluctoarabinoxylans
- Silicic acid
- Steroid saponins: avenacoside A and B
- Amino acids: avenic acid A and B
- Flavonoids: vitexin-, isovitexin-, apigenin, isoorientin-, tricinglycosides

Effect (Oat straw):

There is no information available

Indications and use:

Oat straw is approved in dermatitis and warts

Adverse effects:

Oat herb, fruit and straw: no side effects are known with therapeutic dosages.

Dosages:

- Aventa herb:

The herb is used in combination therapy as a tea for internal use and tinctures and dilutions

Preparation: liquid 1000 mg / ml. to make a tea 3 gm drug is boiled in 250 ml water which is strained after cooling

Dose: the tea is taken repeatedly throughout thegay and shortly before going to beder 5-10 drops, 1 tablet or 5 to 10 globules 1 to 3 times daily or 1 ml s.c. injection twice weekly

Storage: the herb should be protected from light and moisture

- Oat fruit:

It is used in combination preparations or in homeopathy

- Oat Straw:

As a comminuted herb for decoctions and other galenic preparations as teas and bath additives

Preparation: to make oat straw both, 100 g chopped drug is boiled with 3 liters water for 20 minutes and the decoction is added to the both

Dose: 100 g of herb is used for one full bath.

Avocado

Synonyms:

Ahuacate, alligator pear, avocato.

Scientific names:

Persea Americana, persea gratissima, laurus persea.

Family: lauraceae.

Reported used:

Orally, the fruit is used to reduce serum cholesteral.

Topically, the oil is applied to soothe and heal skin, sclerosis of the skin, pyorrhea and arthritis. The fruit pulp is used topically to promote hair growth and hasten wound healing.

In folk medicine, the fruit has been used as an aphrodisiac and to stimulate menstrual flow. The seeds, leaves and bark have been used for dysentry and diarrhea and relive toothache. For food uses, the fruit pulp is edible.

Description:

Medicinal parts:

They are the dried leaves, the fresh leaves, the whole fruit including the see and the oilextracted from the leaves.

Flower and fruit:

The flowers are the compact or loose racemes. They are 5 to 8.2 mm long and greenish. The inner and outer rerianth circles are 4 to 6 mm long and elliptical to oval-elliptical. The anthers are 3.5 mm long and the filaments are 2.3 mm. the ovary is oval or pear- shaped and downy. It develops into a drupe which is green and fleshy and up to 18 cm long. The drupe is smooth with thick oily flesh and a very long seed.

Leaves, stem and root:

The avocado is a tree uo to 40 m on hight and with a trunk 60 cm in diameter. The leaves are 6 to 30 cm long and 3.5 to 19 cm wide. They are narrow to broadly elliptical. The leaf surface is stickly, while the lower surface is downy.

Habitat:

The plant origin is central and soutjern South America and is cultivated in all tropical and subtropical regions to day.

Production:

Avocado oil comes from the fruit of persea Americana. Avocado oil is recoverd from the pericarp of persea Americana and refined if necessary.

Pharmacology:

Avocado is a main ingredient in so- called natural cosmetics

Compounds:

Fatty oil: chief fatty acids oleic acid, palmitic acid, linoleic acid, palmitoleic acid (Tocopherols, vitamin E).

Effects: avocado oil is an emollient which improves rough ichtyotic skin

Adverse reactions:

- Allergic cross-sensitivity in latex-sensitive individuals.
- No health hazards or side-effects are known in confunction with the proper administration of designated therapeutic dosages

Dosages:

Mode of administration: as an active or inactive ingredient in various preparations (both oils, ointments,….etc).

Storage:

Oils from different batches should not be mixed. The drug should be stored in a sealed container away from light and moisture.

Barberry

Synonyms:

Berbery, Pipperdge, Joundice Berry, Sow Berry, MountainGrape, Orgon Grape

Scientific name:

Berberis Vulgaris

Description:

Medicinal part: is the fruit and the root bark

Flower and fruit:

The flowers are 5 to 7 cm long in yellow, dense, hanging clusters. The 6 sepals are yellow and the 6 petals have orange-colored honey glands at the dase. The 6 stamens burst open at the side. The ovary is superior with a flat stigma. The edible fruit is a bright scarlet, oblong- cylindrical berry, 10 to 12 mm long and 6 mm thick. The exocarp is membranous cariaceous. There are usually 2 seeds.

Leaves,Stem and Root:

Barberry is a deciduous, heavily branched, thorny bush up to 2 m high. The thorny branches are angular, deeply grooved, initially brownish yellow, later more white-gray. The thorns are 1 to 2 cm long and stick out horizontally. The leaves are in bunches and are obovate to elliptoid, 2 to 4 cm long and narrow. They are dark green and reticulate, the margin is dentate

Characteristics:

The flowers have a repulsive smell, the stamens lie on the carpels at the slightest touch. The flesh of the fruit is juicy and sour

Habitat:

Europe, northen Africa, parts of America and central Asia.

Production:

Barberries are the ripe fruit of Berberis vulgaris. Barberry root bark or berberis bark is the ried root bark of Breberis vulgaris. Root bark or berberis bark is the dried root bark of Berberis vulgaris. Berberis aquifoluim is a closely-related American Grape Products

Pharmacology:

Compounds: Barberry fruit

- Isoquinoline alkaloi (traces)
- Anthocyans
- Chlorogenic acid
- Malic acid, acetic acid

Compounds: Barberry Root Bark

- Isoquinoline alkaloids: berberine, berbamine, oxyacenthin, columbamine, palmatine, jatrorrhizine, magnoflorine

Effects of Barberry root Bark:

- Source of vitamin C that increases immune system activity, stimulated iron absorbtion and prevents scurvy
- Cardiovascular effect: Fractions from the root extracts which contains 80% berberrine and other alkalois reduce the blood pressure
- Cholagogue effect: by 20%
- Antipyretic and stimulates intestinal peristalsis

Indications and use:

- Barberry Fruit:
  Unproven uses: decoction or alcoholic extract in pulmonary and hepatic isorers "jam or wine made from fresh berries relieve constipation and appetizer" also in pharmaceutical industry as a syrup for masking flavour
- Barberry Root Bark:
  Unproven uses: for narcotic withdrawal, jaundice, gallbladder disease, indigestion, diarrhea, gout, arthritis, malaria and leishmaniasis
  Doses over 4 mg produce stuper, epistaxis, vomiting, diarrhea and renal irritation

Dosages:

- Barberry Fruit:
  Barberry is used orally in tea mixtures and combination preparations
  To prepare tea infusion, pour 150 ml of hot water into 1 to 2 teaspoons of whole or squashe Barberries and strain after 10 to 15 minutes
- Barberry Root Bark:
  Liquid: 1:1, 1:5, Tea.
  A tincture 1:10 is prepared.
  Dose: infusion 2 g in 250 ml water to be siped. The tincture dosage is 20 to 40 drops daily

Basil

Synonyms:

Basilici Herba, common Basil, Garden Basile, Holy Basil, St. Josephwort, Sweet Basil

Scientific name: Ocimum basilicum.

Family: Lamiaceae or Labiatae

Reported uses:

- In Chinese medicine, it is used for stomach spasms, renal conditions and to treat snake and insect bites.
- In folk medicine, the above ground parts are used as an antiflatulent, diretic, lactagogue, gargle, mouth astringent, lead colds, warms, stomachic and warts removal.
- For food uses, it is used as an oil or oleoresin at levels below 0.005%

Description:

Medicinal parts: the fresh or dried herb as well as the oil extracted from the fried aerial parts

Flower and fruit:

The white, labiate flowers are in b-blossomed, pedicled almost sessile axillary false whorls. The calyx is bilabiate and the corolla is 4-lobed. The lower lip is simple; the 4 stamens lie on it

Leaves, Stem and Root:

The plant grows from 20 to 40 cm high. The stem is erect, branched from the base up and downy. The leaves are ovate or oblong. They are long-petioled, acuminate, irregularly dentate or entire-margined.

Characteristics:

It has a characteristic odor and sharp taste.

Habitat:

It is originated in India, Afghanistan, Pakistan and northen India and now is cultivated world wide.

Production:

Compounds: Basil Herb.

- Volatile oil: chief constituents are chavicol methyl ether (estragole), linalool and eugenol
- Caffeic acid derivatives
- Flavonoids

Effects: In vitro the herb is antimicrobial

Compounds: Basil oil

- Chief constituents: estragole (chavicol methyl ether), linalool, eugenol

Effect: In vitro, the oil has antimicrobial effect

Safety:

- Likely safe, when the above ground part are used as a spice
- Possibly safe, when used orally and for short periods.
- Possibly unsafe, when used for long periods and when the oil is used orally.

Both the above ground parts and the oil contain estragole which might be hepatocarcinogenic and mutagenic

- Children; likely unsafe when used as a spice and possibly unsafe when used in larger amounts
- Pregnancy and lactation: likely unsafe when used as a spice and possible unsafe when used in large amounts

Mechanism of action and active ingredients:

The applicable parts are the above ground parts. It is rich in vitamin C, calcium, magnesium, potassium and iron. The constituents are: methyl cennamate, methyl chavicol, ocimne, emcole and linalool which have antagonistic activities. The volatile oil has contains up to 85% estragole (methyl chavicol) which produce liver temass in mice. The constituent xanthomicrol has cytotoxic and antineoplastic activities

Adverse reaction:

- Allergies
- Hypoglycaemia

Caution should be used in long-term treatment which may be unsafe

Dosages:

Oral: the dose of basil leaf for distension or flatulence is one cup of fresh brewed tea 2-3 times a day between meals. The tea is prepared by steeping 2-4 gms in 150 ml boiling water for 10-15 minutes and straining. For chronic flatulence is one cup 2-3 times daily between meals for 8 days and then stopped and resumed for another 8 days

N.B. due to its carcinogenic potential of basil oil, avoid using.

Interactions:

No interactions with herbs, dietary supplements, drugs foods, lab tests or diseases

Bearberry

Synonyms:

Arctostaphylos uva-ursi, Arberry, Bear's Graape, Kinnikinnick, Mealberry, Mountain Box, Mountain Cranberry, Red-Berried Trailing Arbutus, Redberry Leaves, Rock beery, Sagachomi, Sandberry, Upland, Granberry, Red-Beery, Upland Granberry, Common Bearbery, Arbutus Uva – Ursi, Red Beatberry, Kinnickinick.

Scientific name:

Uva-Ursi

Unproven uses:

Urogenital and biliory tract disorders.

Description:

Medicinal parts are the dried leaves and preparations of the fresh leaves

Flower and fruit:

The flowers are on 3 to 12 short, hanging stalks, where they are in clusters at equal length and distance on the terminal end of the stalks. The pedicle has 2 small ciliate, oval shaped leaves at the base with the subtending flower clusters. The calyx is 1 mm long, palmate and has 5 membranous tips. The corolla (fused patels of the inner whorl) is avoid to jug-shaped, white or reddish with a red border, 5 to 6 mm long with 5 short tips rolled backword, the 10 stamens are half in length as the corolla tube. The filaments are heavily thickened at the base. The crimson anthers have porous openings and a long whip-like, curling appendage, the ovaries are 5- to 7- valved and the style is longer than the stamens. The fruit is a globular, pea- sized scarlet, flowry drupe. The fruit has 5 ti 7 stine seeds, 4 mm in length, which are kidney-shaped and also compressed at the sides.

Leaves, Stem and Root:

The plant is a decumbent (reclining on the ground and ascending extremities), up to 1.5 m long creeping espalier with clastic, red-brown branches. The leaves are alternate, cariaceous, short-petioled, spatulate – obovate or wedge-shaped, entiremargined and slightly revolute. They are 12 to 30 mm long by 4 to 15 mm wide, glaborous, glossy and evergreen. The underside is distinctly reticulate and the midrib and the margins are often downy

Characteristics:

The leaves have a bitter, astringent taste. They are distinguished from the cranberry by the reticulate vein structure and non-glandular spots beneath.

Habitat:

The plant has spread from the Iberian peninsula across Central Europe north to Scandinavia and cast to Siberia. The plant is also found in the Altai mountains, the Himalayas and North America.

Production:

Bearberry leaves consist of the fresh or dried leaves of Arctostaphylos uva-ursi, which are gathered in the wild. The arbutin content is highest in December and January and also when the leaves are dried rapidly. The main source are spain, Ialy, Ausria, Switzerland, Scandinavia, Poland,Russia and Bulgaria.

Pharmacology:

Compounds:

- Hydroquinone glycosides: arbutin (arbutoside, hydroquinone-o-beta-D-glycoside, 5-16%), methyl arbutin up to 4%, gallayl derivatives of arbutin (0.05%), free hydroquinone (under 0.3%) as decomposition product of arbutin emerging as the leaves age or during dehydration.
- Piceoside
- Phenol carboxylic acids: gallic acid (free 180 mg / 100 g), salicylic acid (12 mg / 100 g), P- hydroxybenzoic acid (9.6 mg / 100 gm), ferrulic acid (6 mg / 100 g), caffeic acid (6 mg / 100 g) and lithospermic acid.
- Tannins (15 – 20 %): gallo tannins, ellagitannins including carilagin, condeced tannins, chiefly proan thocyanidins and their monomerics including cyaniding, delphinidin.
- Iridioe: monotropein (0.025%)
- Flavonoide: flavonol glycosides including hyperosie (0.8-1.05%) which is the chief flavonol glycones of these compounds.
- Enzymes: beta glucosidase (arbutase) that is rendered inactive with dehydration and proceesing of the drug due to high tannin content.
- Triterpenes: ursolic acid (0.4-0.8%), alcohol uvaol, beta-amynin.

Effects:

The tannins act as an astringent and the phenol glucosides and their aglyca have an antibacterial effect which is assoiated with aglycon hyderoquinone released from arbutin or arbutin waste products in the alkaline urine, the drug has urine sterilizing properties that are attributed to bacteriostatic

hydroquinones conjugates of glucuronic acid and sulfuric acid. The effect occurs 3-4 hours after administration

Indications and use:

Urinary tract infections:

Contraindications:

It is contraindicated in pregnancy, nursing mothers and children under 12 years of age (due to its hepatotoxic action of the released hydroquinones

Adverse effects:

In patients with gastric sensitivity may experience nausea and vomiting due to high tannin content, bur proper administration of therapeutic dosages has no health hazars with designated therapeutic dosages

Dosages:

The drug is available as comminuted rug, drug powser or dried extract for infusions or col macerations, as extracts and solid forms for oral administration. It is also a component of urologic combination and single-component

Preparation: capsules 150 mg, 455 mg, 505 mg, tea, solutions.

To make tea, pour boiling water over 2.5 gm finely cut or coarse powdere drug (one teaspoonful is equivalent to 2.5 g drug). Or place the drug in cold water that is rapidly brought to a boil. The tea should draw (to extract the essence) for 15 minutes and then be strained. Teas may contain up to 30% drug in combination with other drugs. For higher drug content, prepare cold macerate (over 6 to 12 hours) to lower the tannin content.

Daily ose: 10 g of powderd drug (corresponding to arbutin content of 400 to 840 mg) or 0.4 g dry extract in a single dose. 2 g of liquid extract, 3 g of the infusion or cold maceration to 150 ml water as an infusion or cold maceration up to 4 times a day or 400 to 840 mg hydroquinone derivatives calculated as water-free arbutin. The urine should be alkaline.

Doses of rops 5 -10 drops, one tablet or 5 to 10 globules 1-3 times daily or one ml injection solution twice weekly S.C.

Overdose:

It can lead to inflammation and irritation of the bladder and urinary tract mucous membranes. Liver damage is connected with rug administration over extended periods, particularly with children due to the possible hepatoxicity of the hyroquinones released

Interactions:

- The preparations should not be administered with any substance that causes acidic urine since this reduces the antibacterial effect. Since the urine disinfecting effect of the hydroquinones released in the urinary

tract only occurs in an alkaline environment, simultanwous administration of medication or food that increase uric acid levels in the bladder is to be avoided.

- The sodium sparing effect may offset the diuretic effect of thiazide and loop diuretics
- It may add to the gastrointestinal irritation that occurs with NSAID use

Storage:

In well-sealed containers protecte from light.

Bee pollen

Synonyms:

Buck wheat polle, maize pollen, pine, pine pollen, pollen D Abeille

Scientific name:

None

Reported uses:

- Orally, it is used for nutrition, stomachic, improves athletic ability, premature aging, prevents of lay fever or allergic rihinitis, rheumatism, dysuria, radiation sickness, bleeding disorders, constipation, diarrhea, enteritis and colitis.
- Topically, it is used for skin care and skin softening products in Chinese medicine, it is used orally as a diuretic and for alchohol intoxication and topically for eczema, pustular eruptions and diaper rash

Safety:

- Likely safe: when used nally and approprieately
- Possibly unsafe: when used orally by individuals with pollen allergy
- Pregnancy: possibly unsafe when used orally, avoid using
- Lactation: insufficient information available, avoid using

Effectiveness:

Likely ineffective when taken orally for increasing athletic stamina. There is insufficient information about its effectiveness for its other uses

Mechanism of action and active ingredients:

Up to 50% is polysaccharides. The other constituents include carotenoids, lipids, protein, simple sugars and vitamin C

Adverse reaction:

- Allergies: itching, dyspnea, light headedness and anaphylaxis – chronic allergic symptoms include GI, neurologic symptoms and esinophilia.

- Orally in very large doses produce acute hepatitis

Dosages:

Oral: 500 mg two to three times daily

Interactions:

- No interaction with herbs, dietary supplements and drugs, foods
- Interactions with lab tests: it may increase alkaline phosphatase, ALT, AST, LDH, total bilirubin and prothrombin time (PT)
- Interactions with diseases: liver disease and pollen allergy

Belladonna

Synonyms:

Devil's charries, Devil's harb, Divale Deadly Nightshade, Dwale, Dway berry, Great Morel, Man's cherries, Poison Black Cherry

Scientific name:

Atropa belladonna

Reported uses (unproven):

- Leaf is used for spasms and colic in gastrointestinal and biliary ducts, locally in gout, ulcers and medicinal plasters. It is applied for neuro-vegetative disorders, hyperkinesis, hyperhidrosis, bronchial asthma and urogenital disorders
- Root is used for arrhythmia, neuronal cardiac complaints and gastro-intestinal spasms (leaf is preferred for asthma and gastrointestinal colic

Description:

Medicinal parts are the leaves and roots

Flower and fruit:

The flowers are solitary and hanging. The calyx is fused at the base, has 5 divisions and is spread like a star when the fruit ripens.

The violet corolla is a campanulate tube 2.5 to 3.5 cm long, dirty yellow on the inside with crimson veins. There are 5 stamens and one styl with a 2-lobed stigma. The ovary is superior. The fuit is a cherrysized globose with numerous black ovoid seeds.

Leaves, Stem and Root:

Atropa belladonna is a perennial herbaceous plant 1 to 2 m high with a many-headed cylindrical rhizome. The woody stem is erect, branched bluntly angular and hairy. The leaves are ovately pointed, entire-margined,

downy and up to 15 cm long. The lower leaves are alternate. Near the inflorescence the leaves are in pairs of one large and one small.

Characteristics:

Belladonna has a strong narcotic smell, a sharp and bitter tase and is poisonous

Habitat:

The plant is found throughout Western, central and southern Europe, in the Balkans, southeast Asia, Iran, North Africa, Denmark, Sweden and Ireland. It is cultivated in other countries particularly England, France and the U.S.

Production:

The leaf consists of the dried leaves or the dried leaves together with the flowering branch tips of atropa belladonna. The leaves are collected in the wild from May to July. They are dried at a temperature not exceeding 60^0c. Belladonna root consists of the dried roots and rhizomes. The roots of 2- to 4- year – old plants are dug up in mid-October to mid-November or shortly before the start of the flowering season. They are cleaned and dried at a maximum temperature of 50^0c. Not to be cofused with: Alianthus altissius, phytolacca Americana or scopolia corriolica. The root should not be confused with atropa acuminata. It is sometimes adulterated with phyolacca Americana and scopolia cariolica

Pharmacology:

Compounds: Belladonna Leaf:

Tropan alkaloids: (-)- hyoscyamine which during drying transforms to some extent into atropine as well as apoatropine, scopolamine and tropine.

Flavonoids

Hydrocoumarins: scopline, scopletine

Tannins

Compounds: Belladonna Root

- Tropan alkaloids: (-)- hyoscyamine, in drying transformed to some extent during dehydration into a tropine as well as apoatropin, 3 alpha-phenylacetoxytropane, tropine, cuskhygrine, scopolamine, pseudotroine

Effects: Belladonna leafe and root:

The alkaloids has parasympatholytic, spasmolytic, positive dromotropic and chronotropic effect. It possesses spasmolytic action on gastrointestinal tract bile ducts. Centrally, it relieves tremors or rigidity.

Indications and use:

Belladonna Leaf and Root:

    - Gall bladder disorders
    - Iritis and corneal injury
- Uretric and bladder disorders

Unproven uses:

- In colics, gout, plasters, hyperkinesias, hyperhidorosis, bronchial asthma, meningitis, uregenital disorders and arrhythmia.

Adverse reaction:

High doses produce central excitation, restlessness, hallucination, delirium, mania followed by exhaustion and sleep. Asphyxia can occur with 100 mg atropine which corresponds to 5 to 50 g of Belladonna, there are dryness of mouth, mydriasis, tachyarrhythmias, hyperthermia, retention of urine and constipation.

Dosages:

Mode of administration:

The comminuted drug is used for decoctions and dried extracts, and the powdered drug is used internally for galenic preparations. Due to its toxicity, the drug must be handled with care.

Preparation: coated and uncoated tablets, drops, tea, juice, syrup, ampules, capsules, suppositories, plasters, ophthalmic drops.

Dose: Belladonna powder (total alkaloid content 0.03%) single dose 50-100 mg. Belladonna extract 10-50 mg single dose. Dried extract of root as a powder 30 mg which is equivalent to 1.5 mg total alkaloids. Belladonna tincture 0.5 to 2 ml 3 times daily.

Storage:

Belladonna root should be stored for a maximum of 3 years in well sealed containers protected from light and insects.

Interactions:

Tricyclic antidepressants, amantodine and quinidine will increase the anticholinergic effect

Benzoin

Synonyms:

Benzoe, Gum Benjamin, Gum Benzoin, Sumatra Benzoin

Scientific name:

Styrax benzoin, Styrax paralleloneurus.

Family: Styraceae

Reported uses (unproven uses):

- Oral: for throat and bronchial inflammation

    - Topical: as antiseptic, astringent, skin protectant, local styptic, bedsores, ulcers, cracked sipples, lips and aral fissures.
- The inhalation treatments laryngitis, craup and bronchitis.
- In identistry, it is used for gingivitis and oral herpes

Description:

Medicinal parts: is the balsamic resin obtained from the mechanically damaged trunk

Flower and fruit:

The flowers are fused and their structures are in fives. The calyx is campanulate, weakly 5 toothed, silky tomentose and red-brown on the inside. The corolla is 6 to 11 mm long with 5 tips, brown-red silky. There are 8 to 10 stamens fused below to a tube and a 1-chambered ovary above and 2- to 3- chambered ovary below. The fruit is nut-like appressed pubescent with a diameter of up to 3 cm. the seeds are light brown with 6 longitudinal strips and are up a 2 cm long

Leaves, Stem and Root:

Stryax benxoin is an evergreen tree which grows up to 30 m high. The leaves are alternate and the petionles are rust brown-downy pubsescent. They are approximately 1 cm long. The lamina is 8 to 13 cm long, 2.5 to 5 cm wide, ovate or elongate with a rounded base and irregularly curved-dentate margin. The lamina is covered with white and brown star hairs benteath. The bark is wine- red and the wood is white

Characteristics:

The flowers have a strong fragrance

Habitat:

The plant is native to western Java and Sumatra

Production:

Sumatra benzoin (Gum benzoin) is the balsa mic resin from the damaged trunk of Styrax benzoin and Styrax paralleloneurum. The optimal age of trees to be harvested is few years. The tree is cut causing it to exudates resin to heal the cuts. The resin is collected in a vessel and left to melt to a homogenous mass in the sum.

Pharmacology:

Compounds:

- Ister mixture (70-80%): composed of coiferyl benzoate (styracin), propyl cinnamoate
- Phenylacrylic acids: cinnamic acid (10%)
- Benzoic acid

- resins

Effects:

The expectorant effect with which the rug is credited could not be proven experimentally, but due to its vanilla content

Adverse reaction:

No health hazards are known with proper therapeutic dosages. It may produce contact dermatitis

Mode of administration: Whole herb preparations are for internal use

Storage: In tightly seald and stored below 25^0c

Pregnancy and lactation: insufficient information available

Dosages:

- Inhalation: add 5 ml of compound tincture benzoin to 473 ml of hot water or place the tincture directly on a handkerchief
- Topical: apply few drops of the compound tincture every two hours

The compound benzoin tincture contains 100 gm of benzoin powder, 20 gms of aloe powder, 80 gms of storax an 40 gms of balsam tolu per 1000 ml of tincture

Interactions:

- No interaction with herbs, dietary supplements, drugs, foods an lab tests
- With diseases: sensitive individuals may produce contact dermatitis when tincture is used locally

Bilberry
(Vaccinium myrtillus)

Synonyms:

Airelle, Black Whortles, Bleabarry, Blueberry, burren Myrtle, Dwarf Bilberry, Dyeberry, Huckleberry, Myrtilli Fructus, Trackleberry, Wortleberry, Wineberry

Scientific name: Vaccinium myrtillus.

Family: Ericaceae

Description:

Medicinal parts: the medicinal parts are the dried leaves, the ripe, dried fruit and the ripe fresh fruit

Flower and fruit:

The flowers are axillary and solitary, they are 4 to 7 mm long, short-pedicled, greenish and tinged with pale pink. The carolla is globular-jug-shaped and has 5 tips. There are 8 to 10 stamens which are enclosedand shorter than the styles. They have glabrous filaments that widen towards the base and 2 horn-like yellow –brown anthers whose spurred appendage is erect. The fruit is aglobular, blue block, frosted, many-seeded berry with parple pulp

Leaves, Stem and Root: the plant is a deciduous, dwarf shrub with sharp-edged, green branches 15 to 50 cm high. The leaves are alternate ovate or oblong-ovate, acuminate and finely serrate

Habitat:

The plant is common to central and nortjern Europe, Asia and North America

Production:

The leaves and fruit are collected in the wild from July to August and dried in the shade.

Not to be confused with Myrtilli folium and fruits of Vaccinium uliginosum.

Pharmacology:

(A) Compounds: Bilberry leaf

- Catechin tannins (1 to 7%) including aligometric proanthocyandins
- Flavonoids: including among others, avicularin, hyperoside, isoquerictin, queritrin meratine, astragalin.
- Iridoide monoterenes: asperuloside, mono tropein
- Caffiec acid derivatives: chlarogonic acid
- Phenolic acids: salicylic acid, gentisic acid
- Quinolizidine alkaloids: myrtine, epimertine

Actions:

The drug is astringent and treat diarrhea due to its catechin tannin content. It is antiviral and lipid lowering (in animals). Possible antidiabetic effect duer to the chromium content

(B) compounds: Bilberry Fruit:

- Fruit acids: quinic acid (3-5%): delphinidine-3-0-arbinoside dephinidine-3-0-galactoside, dephinidine-3-0-glucoside, cyanidin, petunidin, pcoaidin, malvidin
- Flavonoids: hyeroside, isoquercitrin, quercitrin, astragaline.
- Iridodies: asperuloside, orotropein (only in unripe fruits)
- Caffeic acid derivatives: chlorogenic acid
- Pectins

Actions:

It is astringent and has anti-diarreal action due to the tarnin content which is also responsibe for the wound healing effect the anti-oxudative, antiplatelets and anti-ulcer effecr. Also, it has a collagen stabilizing effect and protect against ischemia reperfusion injury. Anthocyanides shows the synthesis of polymorphic collagen in diabetic retinopathy due to inhibiting action on the connective tissue synthesis and protect against retinal hemorrhage

Indications and use:

(A) Bilberry leaf:

In diabetes mellitus (for prevention and treatment), complaints of gastrointestinal tract, renal and urinary tract, arthritis, gout and dermatitis. Extrernally, for oral mucosa, eye inflammation bruns and skin diseases

(B) Bilberry Fruit:

In diarrhea and externally for mild ibflammation of mouth and threat

Reported uses:

- Orally, the dried, rip fruit to treat nonspecific diarrhea, improve night vision, angina, varicose veins, atheroscelerosis and degenerative retinal conditions
- Topically, in oral inflammation.

Adverse reaction:

(A) Bilberry leaf:

- General: no health hazards are known in conjunction with the proper administration of designate therapeutic dosages. Digestive complaints due to high tamin content are possible

Interactions:

It has a platelet antiaggregant action and can interact with aspirin and other coumarin derivatives.

In pregnancy and lactation: unsafe due to potential toxicity

(B) Bilberry Fruit:

No side effects are known with proper administration

Dosages:

(A) Bilberry leaf:

Preparation: to prepare an infusion, pour boiling water over 1 gm finely cut drug (1 teaspoonfule =0.6 gm) and strain after 10-15 minutes. Not to be taken over a large duration

Daily dose: of tae is a one cup 2-3 time daily. For infusion a single dose is equal to 1 gm per cup

(B) Bilberry Fruit:

Mode of administration: tablets, capsules, macerated drug for infusions for internal use and local application. The capsules and tablets are standardized at 25 to 36 % anthocynoside content.
Capsule: 30 mg. 60 mg, 80 mg, 125 mg, 160 mg, 310 mg, 400 mg, 500 mg, 1000 mg
Tablets 40 mg
Preparation: to prepare an infusion, use 5-10 gm mashed drug in cold water, bring to a simmer for 10 minutes then strain (one teaspoonful = 4 gm drug). A 10% decoction is prepared for external use
Daily dose: 20-60 gm of unprocessed fruit for internal use
Externally use a 10% infusion. For tablets and capsules 60-160 mg three times daily

Black cohosh

Synonyms:

Black snake root, bugbane, bugwort, cimicifuga, Rattle root, actea racemosa.

Biological origin and part used:

The dried rihizomes and root of cimicifuga racemosa (actea racemosa) & other cimicifuga spp & macrotys actae oides family Ranunculaceae

Description:

A gerbaceous perennial plant growing to about 15 to 2.5 m with creamy white flowers in feathery racemes, which drop gracefully & a dry fruit containing numerous seeds. The fleshy, dark brown to black rhizome is a creeping underground stem from which arise dark brown roots.
It is native to Canada & eastern parts of the US (Florida), it is now grown in Europe & can be found in wild, the drug is unearthed in autumn.

Chemical constituents:

- Triterpene saponin glycosides of the cycloartane type, including actein & cimicifugoside and 27-dexoyactein.
- Isoflarone, formononetin.
- Caffeic and isoferulic acids and fatty acids.
- Tannins and resin “cimicifugin”

Pharmacology:

Prolonged injections of black cohosh in rats and mice increased the weight of the uterus; established menstrual cycles in juvenil and climacteric animals caused a selected reduction of serum LH in ovariectomized rats. Prolactin

and FSH were unchanged and resulted in significant inhibition of LH secretion after the third day (dichloromethane extract).

The LH suppressive effect of black cohosh extract is caused by at least three different synergistically acting compounds.

The trichloromethane extract demonstrated an abibity to bind to oestrogen receptors invitro

Two commercial black cohosh extracts were tested for their ability to compete with oestradiol for the antigen binding sites on an antibody (JgG) directed against oestradiol (supports the presence of oestrogenic comounds in black cohosh)

Unlike oestradiol, black cohosh extract did not stimulate growth of mammary tumor cell in-vitro. A dosage of 2ηg/ml led to a strong inhibition of proliferation.

Cimifugoside inhibited blastogenesis in mouse splenic lymphocytes.

Black cohosh extract demonstrated a hypotensive activity after IV adminstration at 1 mg/kg to rabbits

Reported uses:

It has long been used for womens complaints especially painful periods &problems associated with the menopause, amenorrhoea, dysmenorrhoea, ovarian pain menorrhagia, as an adjunt in the treatment of vonditions requiring reduction in LH levels " e.g. infertility, miscarriage, cyst formation, ovarian tumorigenesis, polycystic ovary syndrome".

In cases of decreased oestrogen and progestron levels and as antiabortion agent.

Used for myalgia, neuralgia, arthritis and rheumation, sciatiea

Also for respiratory tract disorders, whooping cough, arthritis, tinnitus and hypertension astringent and diuretic.

Dosages and routes of administration:

- 0.5-1 g dried roots 3-4 times /day or 40-420 mg dry rhizome & root /day
- 1.5-3 ml of 1:2 liquid extract /day
- 3.5-7 ml of 1:5 tinc /day
- 6-12 ml of 1:10 tincture /day
- 0.4-2 ml of 1:10 tincture in 60% ethanol /day
- Capsules 40mg 400 mg & 420 mg
- Capsules 25 mg & 525 mg.

Adverse reactions:

Hypotension, nausea, vomiting, uterine stimulation, slow heart rate, large doses may case miscarriage because of the herbs estrogenic activity, it is likely to produce yertigo visual and nervous disturbances

Interactions:

Antihypertensive, potential for enhanced hypotensive effect, avoid concomitant use.

Dilutions of black cohosh extract in the range of 10^{-3} to 10^{-5} augmented the antiproliferative action of 10^{-5} tamoxifen (invitro).

Contraindications:

Pregnancy and lactation (due to its oestrogenic activity) because of increased risk of uterins stimulation, use causiously in patients taking antihypertensive medications.

Black cohosh would not be used in patients with a history of oestrogen receptor-positive breast cancer.

Pregnancy and lactations:

Pregnancy during the first trmester due to its emeneragogue effect (empirial)

In nursing mothers due to its potential toxicity in large doses "empirical"

Special considerations:

- Monitor blood pressure closely in hypertensive patients
- Warm the pregnant patient, that black cohosh if taken in large doses may cause spontaneous abortion

References:

- Mossby.
- Complementary and alter
- Encyclopedia
- Herb contraindications and drug interactions, “Francis Brinker, electric medical pullication, sandy, Oregon, USA, 2nd ed .1998
- Principles and practice of phtotherapy modern herbal medicine; simon mills &kerry bone

Black hellebore

Synonyms:

Helleborus niger, Christmas rose, Easter rose

Biological origin and part used:

Black hellbore is a perennial ornamentul plant, which is indigenous to the forests of southern and central Europe. The medicinal parts of the plant are

the dried rhizome with or without roots and the fresh under ground parts. Family Ranunculaceae

Description:

The plant is a perennial subshrub. The stem is erect, glabrous, branched, woody at the base and almost lat the base and almost leafless. The plant is poisonous; rhizome isblack-brown.

Chemical constituents:

- Aglycone: hellebrin
- Glycosides: helleborin, helleborcin, bufadienole (toxic agents)
- Other constituents: saponosides, resin, ranunculosides

Pharmacology:

- The cardiac glycosides in the plant possess digitalis-like effects
- Saponons irritate mucous membranes and can cause toxicity. Black hellebore is a GI irritant and the fresh plant has local irritant properties.
- Since black hellebore is a poisonous plant, most herbal practitioners do not use it because of the potential for toxic reaction.
- The only identified therapeutic actions are its possible antifungol and antineoplastic.

Reported uses:

- It has baen used as an anthelmintic, anti anxiety agent and antipsychotic
- It may be used to indue abortion.
- Its homeopathic uses include treatment of acute diarrhea, ancephalitis, cephalitis, kidney inflammation, and states of confusion.

Dosages and routes of administration including dosage forms:

- Daily average dose is 0.05 g orally; the maximum single dose is 0.2 g; the largest daily dose is 1 g. a powder with a medium content of 10% is used for head colds.

Adverse reactions:

Cardiovascular and GI disturbances, dizziness, paresthesia, seizures, hypersensitivity reactions, dermatitis, shortness of breath.

Interactions:

- Additive effect with diagoxin and cardiac glycosides.
- It can lead to toxicity when with diuretic
- Used with a macrolide, it can lead to cardiac toxicity.

Contraindications:

- It should not be given to children and persons with hypersensitivity to black hellebore.

Pregnancy and lactations:

Because it can cause abortion, black hellebore should not be used during pregnancy. Until more research is available, this herb should not be used during lactation

Special considerations:

- Assess for hypersensitivity reactions and for use of cardiac glycosides, diuretics and macrolides
- Instruct the client to store black hellebore in a cool, dry place, away from heat and moisture.
- Advice the client that this plant is poisonous and should not be used. Black hellebore is commonly contaminated with other hellebore is commonly contaminated with other helleborus herbs, which yield a more toxic plant.

References:

- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elsevier Mosby, St.Louis, Missouri, 2006.
- Fleming, T. (editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.

Black mustard

Synonyms:

Mustard

Scientific name: Brassica migra.

Family: Barassicaceae

Reported uses:

- Topical: in pulmonary congestion, rheumatic disorders as counterirritant and as footbaths for aching feet.
- In manufacturing, it is used as a flavoring agent in foods and beverages. In soap making is used as a lubricant and illuminant
- In ingredient in cat and dog repellents

Description:

Medicinal parts: are the seeds from which oil is extracted

Flower and fruit:

The inflorescents are terminal or axcillary and compressed into a semi-sphere. The flowers have 4 free sepals, 4 free petels, 6 stamens and one ovary. The sepals are 3.5 to 4.5 mm long and appear linear because of slits on the edge. They are yellowish-green, usually glabrous, upright and slightly splayed. The yellow petals are twice as long as the calyx, obovate, rounded at the tip and narrowd to a stem at the base, the ovaryis on the receptacle. The style is thin and has a semi-globose, cushion- like stigma. The fruit is an erect pod which is linear and rounded or angular with a thin dividing wall. It is 10 to 25 mm long and pressed on to the stem. The seed is globose, brown, matte and punctate.

Leaves, Stem and Root:

Black mustard is an annual that grows up to 1 m tall and is slim-branched with thin fusiform roots. The stem grows up to 1 m. it is almost round and bristly-haired at the base, with upright branches almost in bushels. The lower leaves are grass-green and covered in 1 mm long bristles. They are pinnatifid and densely dentate, with 2 to 4 obtuse lobes on each side and large end section. The upper stem and branch leaves are smaller, usually glabrous and blue-green, ovate or lanceolate and slightly dentate

Habitat:

Black mustard grows in temperate regions worldwide

Production:

Compounds:

- Glucosinolates: chiegly sinigrin (allylglucosinolates, 1-5grinding the seeds into powder and then rubbing with warm water (not with hot water because enzymes would destroyed), as well as chewing releases the volatile mustard oil allylisothiacyanate
- Fatty oil (30-35%)
- Proteins (40%)
- Phenyl propane derivatives: including sinapine (choline ester of sinapic acidm 1%)

Effects:

The hyperemic effect is the main action and is employed various indications where increased blood flow desired. The drug contains glucosinolates whose main constituent sinigrin, is converted throughenzymatic hydrolysis to mustard oil. This causes a stabbing pain and an reddening of the skin. Upon contact with the skin. Allyls oil causes the severity of the inflammation to increase potentially to the extent were bilisters and necrosis may occur

Contraindications:

It is contraindicated in individuals with gastrointestinal ulcer or inflammatory renal disorders. It should not be administered to children under byeass

Adverse reaction:

- Alleggies: contact dermatitis inpresence of varicasties and venous disorders
- Large amounts produe vomiting, gastritis, gastragia, diaqrrhea, somnolence, cardiac failure, dyspnea, coma and death. Sneezing, coughing and asthmatic attacks can result, coma from the isothiocyanate which can cause endemic goiters
- Topically: causes skin blisters and necrosis

Dosages:

Topical as counter irrctant in concentrations 0.5-5% 3-4 times daily as solution, ointment, emulsions or liniments. The volatile oil is prepared by steam distillation from black or brown mustard after expressing to fixed oil and macerating in water to hydrolyde sinigrin by enzyme myrosin and the volatile oil consists mailnly of allyl isothiocyanate. The stored drug should be protected from light. Mustard poultices are to be remove after no more than 30 minuted. Eyes should be protected from preparing or using poultices because the vapor cause eye irritation

Interactions:

- No interactions with herbs, dietary supplements, foods and lab tests,
- Avoid ammonia preparations to avoid inactive thiosinamine
- With acid-inhibiting drugs due to its local irritant and acid stimulant actions
- With diseases: in gastro intestinal ulcers due to its local irritant action

Blue cohosh

Synonyms:

Blue ganseng, coulphyllum, squaw Root, Papoose, Yellow Ganseng.

Biological origin and part used:

The roots anr rihizomes of coulophllum thalic triodes family berberidaceae.

Description:

A perennial herb growing to 1 m high with 3-lobed leaves, purple blue flowers and seep blue berries, it has a striking appearance, it has 3 purple – blue stems that divide into leaves at the top, surrounding a single flower

Chemical constituents:

It contains the alkaloids: methylctisine " caulophylline", baptofoline, anagyrine & magnoflorine,

Saponins: caulosaponin and cauloside D.

Resin, gum, citrollol, phosphoric acid, pjytosteroles, starch and hederagenin "hydroliv product of cauloside D"

Pharmacology:

- A glyeosidol component of blue cobsh stimulates smooth muscle in the uterus, small intestine and coronary vessels.
- Antifertility actions have been reported in animal studies.
- Anti microbial and anti-inflammatory actions have been demonstrated.

Methyl cytosine has pharmacological activity similar to nicotine causing elevatior in blood pressure, serum glucose levels and pristalsis

Reported uses:

It was used extensively to facilitate child birth and to treat various gynaecological conditions as it promotes menstrual flow, uterine tonic and an agent to enduce labour, antirheumatic, increase sweating and anti-inflammatory & antispasmodic & anticonsulsant.

Dosages and routes of administration:

Rhizome & root 0.3 to 1g tid.

Liquid extract (1:1 70% alcohol 0.5 to 1 ml TDS

Adverse reactions:

Chest pain, GI vritation, sever diahrea, cramping.

Hyperglycaemia, hypertension.

Muscles membrane irritation following contact with powdered extract.

Poisoning in children after ingestion of the seeds.

Interactions:

Antianginal may interfere with therapy, leading to chest pain, disconfort and avoid concomitant blue cahosl

Untihypertensives: may interfere with therapy nicotine replacents increased effects of nicotine.

Contraindications:

In pregnant patients, because of the herbs potential uterine stimulant effect, also in patients with heart diseases.

Pregnancy and lactations:

Should not used because uterine stimulation of its saponin and due to emmeragogue and abortifacient effect"empirical"

Should not used during lactation and donot given to children.

Special considerations:

- Adivse the client not to use nicotine products while using blue cohosh, as it increase the action of nicotine
- Keep blue cohosh products out of the reach of children, seeds are poisonous to children

References:

- Mossby.
- Complementary and alter
- Encyclopedia
- Herb contraindications and drug interactions, "Francis Brinker, electric medical pullication, sandy, Oregon, USA, 2nd ed .1998

Blue-green algae

Synonyms:

Cyanobacteria, Dihe, Klamath blue/green algae, Spirulina, Tecuitiatl

Scientific name:

Microcystis aeruginosa, Microcrocytis wesenbergii, Spirulina maxima, Spirulina platensis, Anabaena wollei, Aphanizomenon

Reported uses:

Orally, they are used as a source of dietary protein, B-vitamins and iron. They are also used for weight loss, oral leukoplekia, obstetric and gynecological disorders, premenstrual syndrome, diabetets, stimulate the immune system, stress, fatigur anxiety depression, improve memory, increase energy and metabolism, lower cholesterol, wound healing and promote digestion

Safety:

- Possibly safe: when non-contaminated, non-microcystin containing spirulina species of blue-green algae are consumed orally
- Possibly unsafe: when contaminated spirulina species of the algae are used orally. Spirulina species can be contaminatedwith microbes, heavy metals (mercury, cadmium, lead or arsenic) and radioactive divalent and trivalent metal ions. The species grown in uncontrolled environments (lakes and ponds) are more likely to be contaminated. These types of blue-green algae often contain hepatotoxic microcystins
- Likely unsafe: when any microcystin-containing blue algae products are used orally. Avoid using all untewsted blue green algae products

- Children are more sensitive to poisoning by microcystins produced by the algae.
- Pregnancy and lactation: insufficient reliable information available, avoid using

Effectiveness:

- Likely effective: when spirulina blue-green algae are used orally as a source of dietary protein and iron
- Possible effective: when they are taken for treating oral leukoplakia
- Possibly ineffective: when they are taken orally as vitamin B_{12} supplement or weight loss.

There is insufficient reliable information available about the effectiveness of non-spirulina blue-green algae

Mechanism of action and active ingredients:

Spirulina blue-green algae consists of 65% crude protein, high concentration of Bvitamins, phenylalanine, iron and other minerals. Phenylamine is responsible for anorexia and weight loss. From 1.5-2 mg iron can be absorbed from 10 gms of the algae. The sprulina blue-green algae enhance antibody production, reduce serum lipids, liver triglycerides and gastric secretion. It protects against the effects of gamma radiation, regress oral carcinome and have antiviral effects.

Adverse reaction:

- Allergies
- Non-contaminated, non-microcystin containing species blue-green algae products are safe and no adverse effects are reported
- Microcystin-containing algae products can cause hepatotoxicity jaundice, abdominal pain and distension, nausea, vomiting, weakness, thrist, tachycardia, shock and death. Symptoms of poisoning occur 30 minutes to 24 hours after ingestion. Children are more sensitive than in adults

Dosages:

Oral: 3-5 gms daily before meals in fruit juice

Interactions:

- No interactions with herbs, diatory supplements, drugs, food and lab results
- Phenylketonuria: phenylalanine in the algae products exacerbates the disease and avoide spirulina species blue-green algae products

Bololo

Synonyms:

Boldine, Boldoak Boldea, Boldo Folium, Boldus, Boldus Boldus

Scientific name:

Penumus boldus. Family: Monimiaceae

Reported uses:

Orally, boldo leaf is used for mild gastrointestinal spasms, rheumatism, cystitis, hepatic disease, as diuretic, sedative, bile stimulant and antiseptic

Description:

Medicinal parts: are the leaves

Flower and fruit:

The inflorescences are racemes of whitish or pinkish campanulate flowers. The berries are small yellowish-green and edible.

Leaves, Stem and Root:

The plant is a strongly aromatic heavily branched evergreen shrub 5 to 6 m tall. The leaves are sessile, opposite, oval about 5 cm long with an entire and slightly revolute margin. They are rather thick and coriaceous with a protruding midrib and a row of small glands on the upper surface. Both surfaces are slightly pubescent.

Characteristics:

Boldo has a bitter aromatic odor and amphoraceous, lemony taste.

Habitat:

The plant is indigenous to chile and preu. It is meniralized in mountainous mediterrnean regions and in the eastern coast of the US

Production:

The leaf consists of the dried leaves of peumus boldus.

Pharmacology:

Compounds:

- Quinoline alkalois of the aporphine type (0.25-0.5%), main alkaloid boldine (0.1%)
- Volatile oil (2-3%): chief components are p-cymene, cincol, ascaridole
- Flavonois: includig rhamnetn -3-0-arabinoside-3-0-mamnoside (peumosie), isorhamnetin-3-0-glucosude-7-0-mamnoside (boldoside),isorhamnetin dirhamnosie (fragroside)

Effects:

Boldo has been shown to be antispasmoic, choleretic and to increase gastric secretion

Indications and use:

In dyspeptic complaints, mild gastrointestinal spasms and as a cathartic when taken orally.

The volatile oil should not be used because it contains up to 40% of the toxin ascaridol

Adverse reaction:

- Allergies
- High doses cause depression, color hallucinations, sound hallucinations, partial motor aphasia and convulsions
- Skin irritation when applied externally

Safety:

- Likely safe: when consumed in small amounts commonly found in food and in alcoholic beverages with maximum level 0.0002%
- Likely unsafe: in excessive amount for oral medicinal purposes ue to the presence of volatile oil (2.5% in leaf) which contains ascariole
- Pregnancy and lactation: unsafe when the volatile oil is used due to ascaridole

Dosages:

Oral: 60-200 mg of the dried leaf three times daily or as a tea three times daily. Tea is prepared by steeping one gram of the dried leaf in 150 ml boiling water for 5-10 minutes and then straining. The ose of liquid extract (1:1 in 45% alcohol) is 0.1-0.3 ml three times daily. The tincture (1:10 in 60% alcohol) is 0.5-2 ml three times daily.

The daily dose of boldo leaf by infusion is 3 gm

Interactions:

- Herbs and dietary supplements that have coumarin constituents or affect platelet aggregation increase risk of bleeding.
- No interaction with drugs, foods and lad tests.
- With diseases in renal disorders avoid boldo products which are not certified as ascardiole-free. It is contraindicated in hepatic disorders, bile odstruction and gall-stones

Borage

Synonyms:

Beebread, Beeplant, Borago, Barrge, Common Borage, Common Bugloss, Cool Tankard, Ox's Tangue.

Scientific name:

Borago officinalis – family: Boraginaceae

Description:

Radicinal parts: are the dried flowers and the dried or fresh foliage, stems and leaves

- Flower and fruit:

  The flowers are in separate, terminal erect leafy racemes. The calyx is divided almost to the base into 5 rough-haired tips.the 1.5 to 2.5 cm wide corolla is usually sky blue (occasionally white) and has a short tube. The scales of the tube are white. The 5 stamens have a broadened filament and a violet, spur-likeappendage. The anthers are black-violet. The style is thread-like with a head like stigma. The ovary is divided into 4 valves. The small nu is elongated-ovate, about 7-10 mm long, light brown, keeled, ribbed, warty and rough.

- Leaves, stem and root: it is an annual succulent bristly-haired herb, 15-60 cm high. The erect, vertically grooved stems are covered in rough, whitish hairs, the leaves are alternate, clasping, solitary, antire-margins, green on top and whitish on the ubderside. The leaves are 3-10 cm long and elliptoid to ovate.

Characteristics: borage has a taste similar to cucumber

Habitat: borage originated in the Mediterranean region, but is now found all over Europ and the U.S.

Production: Borage oil is the fatty oil of the seeds officinalic. Borage leaves are the herb most often grows wild but is cultivated on a small scale in Yugoslavia, Rumania, Bulgaria and Turkey. Borage is harvested during the flowering period. Due to the plants very high water content should be artificially dried at 40c

Not to be confused with the herb Echium vulgare

Pharmacology:

- Compounds: Borage oil

  Fatty oil: chief fatty acid is gamma-linolenic acid (17-25%), linoleic acid.

  Effects: Borage oil, the drug acts as an astringent and as a sequestering agent

- Compounds: Borage leaf:

  - Pyrolizidine alkaloids: supinin, lycopsamin, 7-acetyl-lycopsamin

intermedin, 7-acetyl intermedine, amabiline.

- Silicic acid (to some extent water – soluble)
- Tannins

Effects: Borage leaf:

The tannins in Borage leaves have as astringent effect and the mucins as sequestering effect

Indications and use:

- Borage oil:
  Unproven uses: menodermatitis and as food supplement
- Borage leaf:
  Unproven uses: in folk medicine, it is used as a sequestering and mucilaginous agent for coughs and throat illnesses and in bronchial disorders. It is also used as an anti-inflammatory agent for kidney and bladder disorders as an astringent and to treat rheumatism. Also it is used for dehydration, the prevention of chest and peritoneal inflammation, analgesic, arthritis, cardiotonic, phlebitis and menopausal complains.

Precautions and adverse reaction:

- Borage oil: no side-effects are known with therapeutic dosage

Pregnancy and lactation: likely unsafe, avoid using

- Pyrolizidine alkaloid content is small; the drug should not be administered. External use may present less of potential problems

Dosages:

- Borage oil:
  Mode of administration: capsules, sometimes is combination with vitamins. Capsules: 50 mg, 1000 mg. once or twice /day
- Borage leaf:
  Storage: the drug should be protected from light and moisture.

Interactions:

- Herbs with anticoagulant / antiplatelet potential that have coumarin constituents or affect platelet aggregation increase risk of bleeding
- Phenothiazines increase risk of seizures in schizophrenia.
- Anticoagulants / antiplatelets increase the rish of bleeding
- No interaction with food

Bryonia alba

Synonyms:

White Bryony, Devil's Turnip, English Manrake, Ladie's seal, Tamus, Tetterberry, Wild Hops, Wild Nep, Wild Vine, Wood Vine.

Reported uses (unproven):

The root has been used as a laxative, emeric and diuretic in various gastrointestinal tract and respiratory tract and for rheumatic disorders, also for metabolic disorders, liver disease and acute and chronic infectious disease.

Description:

Medicinal part: Are the pars in the root

Flower and fruit:

The plant is monoccious, occasionally dioccioas, the male flowers are in long peducled racemes which are 10 to 12 mm wide and shedeasily. The female flowers are short-stemmed umbel-like clusters. The sepals are almost as long as the corolaa. The 5-petaled is yellowis-white and has green veins. The 3 styles are almost completely free. The stigmas are glabrous. The fused unferioor ovaries are 3-valved. The fruit is a 1- to 2- seedd, thin-skinne, 7 to 8 mm thick, globose black berry

Leaves, Stem and Root:

White bryony is an extremely fast growing perennial. It has a thick, tuberous root. The root is fleshy, wrinkled horizontally, yellowish-gray on the outside and white and slimy on the inside. The grooved, angular stems are climbing, branched and have long internodes and simple screw-like climbers. They grow up to 4 m long. The leaves are short- petioled, broadly cordate, pentagonal to 5-lobed and coverd with short bristles on both sides.

Characteristics:

The root is bitter and spicy. The plant categorized as extremely poisonous

Habitat:

Indigenous from northeastern and southeastern Europe and also Iran

Production:

Bryonia root consists of the ried taproot of Bryonia alba which is cultivated

Pharmacology:

Compounds:

- Circurbitacins: including cucurbitacins B, D, E, I, J, K, L, 23,24-dihydro-cucurbitocins, 1, 2, 23, 24 tetrahydrocucurbitacins, 22-deoxycucubitacins and bryodulcigenin, cucurbitacin glycosides including bryonin, claterinide, bryonoside, bryodulcigenin, cucrbitacin glycosides.
- Triterpenes with unusual structure e.g. bryonolic acid

- Steroids: including sterols like C-4- and / or C-24- methylated or ethylated cholest-7- en-3- beta- oles.
- Polyhydroxy fatty acids: incluing 9, 12, 13, trihydroxy-oc-tacca-10(E)-15-(Z)-dienic acid
- lectins

Effects:

The drug has a strong toxic effect. Topically, they are irritating on the skin and mucaus membranes. The resin is a droatic purgative. The methanol extract have a strong hypoglycemic effect.

Adverse reaction:

The drug is highly toxic when freshly harvested. The toxicity decreases rapidly with dehydration and storage because of the instability of the cucurbitacins. Due to the cucurbitacin content, the drug has a severely irritating effect on skin and mucous membranes. Contact between juice and the skin leads rash, infection, blisters and necroses.

Overdosage:

Toxic doses lead to vomiting, bloody diarrhea, colic, renal irritation, anuria, collapse, spasms, paralysis and death. Consumption of 40 berries is fatal for adults and 15 for children

Dosages:

Therapeutic administration cannot be justified because of the risks involved

Preparation:

A decoction is prepared by adding 0.5 to 1 g drug to one cup water.
Dose: of the powder is 0.3 to 0.5 g as an emetic and purgative

Buchu

Synonyms:

Barosmae Follum, Bookoo, Bucco, Buchu, Diosma, Round Buchu, Short Buchu.

Scientific name:

Agathosma betulina, Barosma betulina, Barosma crenulate, B. serratifolia.
Family: Rutaccae

Reported uses:

Historically, it is used as urinary tract disinfectant in cystitis, urethritis, prostatitis and venereal disease. In manufacturing, the oil is used to give a fruit flavor to foods

Description:

Medicinal parts: are the leaves of Barosma betulina, Barosma crenulata and Barosma cerratifolia gathered during the flowering season as well as the ethereal oil extracted from the dried leaves of Barosma betulina.

Flower and fruit:

The pentamerous flowers of Barosma betulina from a white or pink corolla 12 mm in diameter with lanceolate petals. The fruit is a 6 mm long and 2 mm wide glossy block and hard with no endosperm. The flowers of Barosma crenulata are pink and hard or white and attached to short leafy side branches

Leaves, Stem and Root:

Barosma betulina is a small shrub with light green to yellow leaves, the leaves are 12 to 20 mm in length, opposite, rigid and coriaceous. They are rhomboid or obovate, short petioled and slightly pubexent, blunt and revolute at apex. Each indentationhas an oil gland. The oil gland form small raised structures on the leaf surface. The stem is about 2 to 3 mm in diameter, reddish-brown and rough (due to the oil glands) with 4 long grooves. The internodes are 8 to 20 mm long

Barosma crenulata is a slender glabrous bush 2 to 3 m high. It is branched some what angulary. The bark in violet-brown. The leaves vary in form and are opposite and pubescent on both surfaces. They reach up to 3 cm in length with an obtuse, but not a revolute tip.

Barosma serratifolia bush is very similar to the above, although the leaves are longer, obtuse at the tip and narrowed on both edges. The leaves are lanceolate, have a long serrated saw-shaped margin and a blunt apex. They are yellowish green and up to 4 cm long with an oil gland at the apex and indentations on the margin. Thesae are smaller oil glands spread over the leaf blade.

Characteristics:

The leaves have a peppermint odor

Habitat:

The plant is indigenous to the cape region of south Africa

Production:

Buchu leaf consists of the dried leaves of Barosma betulina harvested when in flower and in fruit. In South Africa, collection of the leaves is strictly controlled by the government to prevent destruction of the plant in the wild. Not to be confused with other Barosma and Diosma species

Pharmacology:

Compounds:

- volatile oil: diosphenol and psi-diosphenol (amixture known as buccocamphor), limonene, (+)-menthone, 8-9-isomenthone pulegone,

furthermore (-)-cis and (+)- trans-8-mercapto-p-menth-3-one (odor-determing so-called cassis aroma)

- Flavonoids: rutin and diosmetin

Safety:

- Likely safe: when the leaf is used in amounts found in foods and the maximum levels is 0.002 %
- Possibly safe: when the leaf is used orally and appropriately in medicinal amounts
- Possibly unsafe: when large amounts of leaf are taken orally or when the oil is ingested. It contains pulegone has a hepatotoxic effect.
- Pregnancy: possibly safe when used in food amounts, likely unsafe when used in large amounts that may lead to abortion
- Lactation: possibly safe when used in food amounts. There is insuuficient information available, avoid using

Effectiveness:

There is insufficient information available

Adverse reaction:

- Allergies
- Leaf can cause Gi and renal irritation and increase menstrual flow or abortion

Dosages:

Oral: one cup of tea (steep one gm dry leaf in 150 ml boiling water 5-10 minutes, strain) several times per day. Liver function should be monitored because its potential hepatotoxicity.

Interactions:

No interaction with herbs, dietary supplements, foods or lab tests

With drugs: enhance the effect of anticoagulants

With diseases: renal infection and urinary tract inflammation are contraindicated

Bupleurum

Synonyms:

B.Scorzonerae folium.willd, β.falectuml.Var.Scorzonerae folium

Common trade name:

Chai Hu, Beichaihu, Chaifu, Hare's root, Chaiku-saiko, Chinese thortowax root – Juk siho kara-saiko, mishima saiko, nonchaihu Narthern Chinese thorowax root. Radix Bupleur, wasaike, Yama-saiko.

Biological origin and part used:

Dried root of Bupleurum falcatum L or B.falectum L. var. scorzoneraifolium (wild), ledeb. (Apiaceae)= umbelliferae

Description:

Perennial herb 1m high, woody rhizome leaves, lanceolate, to linear lanceolate flowers in pale yellow umbels with involuore of 1-3 minute bracts or laking, fruit oblong furrows 3 vittae.

The root branched, along cone or column shape 0.5-1.5 cm in diameter, occasionally with remains of stem or crown light brown, wrinkled, easily broken and fibrous.

Powder: parenchyma, thin walled cork, lignified vessels, lignified fibers, shizofernous oil canals.

Starch granules simple 2-10 η. & compound grains.

Chemical constituents:

- Triterpenocid saponins "saikosides"
- Flavonoids
- Polysaccharides.

Saikosides, includes saikosaponin A, B_{1-4}, D,E ,F and H. and saikogenins A-G.

Polysaccharides. Two biologically active, bupleurans 2Iib and 2Iic.

Pharmacology:

Antipyretic and analgesic activity:

Oral administration of its decoction 5g / kg to rabbits with a heat induced fever decreased body temperature to normal levels within 1.5 hours.

Aqueous ethanol extract of Bupleurum root (2.2 ml / kg, 1.1 g crude drug / ml) significantly reduced fevers in rabbits with E. coli.

Oral administration of its saikosaponin to rats produced hypothermic, antipyretic effects, sedative and analgesic effect, but no anticonvulsant effect or reduction in muscle tone was observed.

The sedative effect of the root and its crude saponin (200-800 mg / kg) in mice was similar to that of meprobamate (100 mg)

Anti inflammatory activity:

The root, its volatile oil, crude extract or saikosaponin fraction (2 g / kg), inhibited dextran, serotonin, or croton oil induced rot pow oedema, Its potency was similar to that of prednisolone.

Immune regulation activity:

The acidic pectic polysaccharide bupleuran 211b isolated from the roots was found to be a potent enhancer of immune complex binding to macrophage another study showed that saikosapone isolated from the roots also promoted

interleukin –2 production and receptor expression, as well as c-fos gene transcription. These results suggests that saekosaponin Dexerts its immuno-stimulant effects by modification of T- lymphocyte function.

Antiulcer activity

In-vivo and in-vitro studies showed that the polysaccharide fraction of the root inhibited HCl or ethanol – induced ulcerogenesis in mice & has a potent anti-ulcer activity which was similar to that of sucralfate.

The mechanism of anti-ulcer action appears to be due to reinforcement of the protective mucosal barrier as well as an anti-seretory action on acid and pepsin. Saponins of the roots have also been reported to have weak anti-ulcer activity in the pylorus – ligation ulcer model.

Hepatoprotectant activity:

Oral administration of saponin to rats at a daily dose of 500 mg / kg, normalized liver function.

Treatment of rots with saikosaponin 2 hours before treatment with D-galactosamine inhibited the increase in serum ALT & AST. Produced by damage of liver tissues and don't affect serum ALT and experimental cirrhosis in rots caused by CCL4 intoxication

The antipyretic activity of β-chinensis has been investigated in patients with fevers caused by the common cold, influenza, malaria and pneumonia (in 143 patients, treated with the herb) fevers subsided within 24 hours in 98.1% of all cases of influenza, 87.9% of all common cold

Reported uses:

In folk medicine: treatment of deafness, dizziness, diabetes, wounds and vomiting.

In traditional medicine: treatment of fever, inflammation in influenza and common cold, analgesic in chest and hypochondriac region, for amenorrhea, extracts for the treatment of Chronic hepatitis and for a poorly functioning or comporomised liver to treat spleen and disharmony between the liver and the spleen, a condition that manifests itself in problems of the digestive system such as abdominal pain, bloating, nausea and indigestion.

Saikosides research in Japan. From 1960s onwards has revealed that saikosides are potent medicine

They protect the liver function even in people with immune system disorders.

1960s, Japanese worker showed that the root is effective in treatment of hepatitis and other chronic liver problems and showed also that saikosides have anti-tumor activity and that they stimulate the body production of corticosteroids and increase their anti-inflammatory effects.

Dosages and route of administration:

Doses of 3-9 g / day or equivalent from liquid extracts and tinctures to be orally or by IM injection.

Adverse reactions:

Mild lassitude, sedation and drowsiness
Large doses decrease appetite and cause pronounced flatulence and abdominal distension.
Rare cases of allergy were reported in patients given IM injection of the drug.

Interactions:

Use of alcohol, CNS depressants may cause synergistic sedative effect, however no clinical study have evaluated this possible interaction

Contraindications:

Should not be administered during pregnancy and lactation

Pregnancy and lactations:

No effects have been established.
Should not be administered during pregnancy and lactation

References:

- Mossby.
- Complementary and alter
- Encyclopedia

Burdock

Synonyms:

Bardana, Beggars Buttons, Clotbur, Cockle Button, Cuckold, Edible burdock, Foxisclote, Gobo, Great gur, Great Burdock, Happy major, Hardock, Lappa, Love leaves, Pessonata, Philanthropium, Thorny Burr, Wild Gobo, Niu Bang Zi

Biological origin and part used:

The dried root of the great burdock “Arctum Lappa or common burdock”
Arectum minus family Asteraceae seeds and leaves also used.

Description:

Large biennial herb native to Europe and Asia grows in temperate regions throughout the world including USA.
Cultivated in Europe & China.

In its first year produces a rosette of large triangular lobed leaves, the flowers in caputulae, the fruit is covered in hooked bracts, seeds oval light brown.

Chemical constituents:

Bitter glycosides “artiopicrin, flavonoids, larctin, tannin, polyacetylenes, polyphenolic acids, volatile acids, anthraquinone glycosides and a plant hormone, gamma-guanidino-n-butyric acid.

Carbohydrate, mainly insulin “account for uo to 50% of the total root mass.

Seedo contain arctin (flavonoid glycoside), fixed lingnans, chlorogenic acid, and germacranolide.

Pharmacology:

Anti pyretic, diuretic-7diaphoretic in in-vivo studies, reported to possess uterine stimulant effect.

Animal studies have shown strong hypoglycemic activity and antagonism of platelet activation factor.

Various in-vivo & in-vitro studies have found that burdock possesses antimutagenic effects.

Leaves & flowers have antimicrobial effects against gram negative and gram positive bacteria

Reported uses:

Budrock was a traditional remedy for gout, fevers and lidney stones, it is used in both western & Chinese herbal medicine as a detoxifying herb. In infections such as mumps & measles, acne, abscesses, local skin infections, enzema and psoriasis, canker sores, poison iry, boils in ulcers, rhumatism, sciatica, lumbar pain, hemorrhoids.

Seeds are used as hypotensive, myodepressent.

In the Far East, it is used to treat cancer, impotence & steribity, HIV infections.

Roots are used for their hypoglycemic, antiseptic, toxicopectic and antilaimor actions.

Dosages and routes of administration:

- Taken internally as atea alone or mixed with dandelion root.
- 2 teaspoonsful budock root amnd 5 teaspoonful dandetion and drink 1 cup twice a day.
- Tincture of the root 200 g / l for arthritis & skin disorders, take 20 drops diluted with warer 2 to 3 times aday for up to four weeks.
- Infusion of seeds 2-3 g/cup of water is used as a wash for a cne abd boils poultice of leaves is applied to abcesses and boils capsules 425, 475 mg

Adverse reactions:

Allergic dermatitis; occasionly poisoning due to atropine contamination of some commercial burdock teas.

Interactions:

Insulin and oral antidiabetics possible increase in hypoglycemic effects, avoid concomitant use with antihypertensive drugs & calcium chanel blockers.

Contraindications:

In patients with allergy to the drug or related plant species in patients having cardiac disorders

Pregnancy and lactations:

Don't use in pregnancy as uterine stimulation may occut due to its oxytocic effect and also during actation due to its anthraquinone cntent which may cause diarrhea to the infants.

Special considerations:

- Diabetic patients must be informed to reduce the doses of insuline or antidiabetics, because burdock preparation causes hypoglycemia.
- Advice the patients that burdock products may be significantly contaminated with atropine & toxicity has resulted from this contamination.
- Warm the female patient to avoid use of the herb during pregnancy or when breast feding

References:

- Mossby.
- Complementary and alter
- Encyclopedia

Capsicum

Synonyms:

Bell pepper, cayenne pepper, red pepper, Hat pepper, paprika, Tabasco pepper chili pepper, chillis, cayenne, pimiento, capsaicin, pepper Defense, cap-stun.

Biological origin and part used:

The dried ripe fruits of capsicum minimum, c, frutescens, c. annum fam. Solana ceae also form other species as C. baccatum, C. chinensis and C. pubescens.

Description:

Cayenine is a perennial spiky shrub growing up to 1 m with scarlet – red conical berrier filled with white seeds arranged on a membraneous intensly pungent dissipemint.

Cayenine is nature to the tropical America and is now cultivated through out the tropics, especially in Africa and India.

Chemical constituents:

- Capsaicinoid also nesin containing the pungent alkaloids: capsaicin, 6, 7-dihydrocapsacin nordihydrocapsaicin, homodihydrocaaicin and homocapacin.
- Volatile oil
- Carotenoids include capsanthin, capsarulin, carotene and lutein.
- Proteins, fats and high amounts of vitamin A, C
- Vit C. present may be as much as four to six times that found in an orange. Provitamins E, P, B1, B2 and B3 have also been identified. Steroidal saponein capsicidins “solanine, lasodine and a coumarin” scopoletin are found in other plant organs. 0.14% capsaicin with the highest constraction is localized in the intense punget placenta of the fruit dissepiment.

Pharmacology:

The initial topical dose of capsaicin causes profound pain; however, repeated applications cause desensitization with analgesic and even antinflammatory effects. Heat sensation is caused by stimulation of specific local afferent nerve fibers.

Analgesic effects may effects may be explained by capsaicin induced neuronal depletion of substance believed to be a mediator in the transmission of painful stimuli from the periphery to the spinal card.

The analgesic effect may also result from the methoxyphenal portion of the capsaicin molecule that may interfere with the lipooxygenase and cyclooxygenase pathways.

It does not cause blistering or redness because it does not act on the capillaries or other blood vessels

Capsaicin was found to protect against Helicobacter pyloric-associated gastrointestinal disease.

Also it protects the stomach against gastric mucous against damage if taken 60 minutes before aspirin dose.

Research on rots has shown cardiovascular responses such as hypotension, decreased heart rate.

The rates that were fed a medium level of capsaicin showed an increase in the T-cell mitogen-induced lymphocyte proliferative response and an

increase in β-cells immunoglobulin G "TgG" immunoglobulin M "IgM" and TNF alpha levels suggesting an increased immune function

Reported uses:

Traditionally, it is a powerful warning stimulant; it acts on the circulation and the digestion and is used to treat a wide range of complaints from arthritis and chilblains to colic and diarrhea.

The traditional claims include use of capsicum in treatment of bowel disorders, chronic laryngitis, peripheral vascular disease stimulate circulation improve blood flow to hands and feet and to the central organs.

Topical capsaicin preparation desensitizes nerve endings and act as a counter-irritant stimulating local blood flow and can be useful for treating pain associated with postherpetic neuralgia, rheumatoid arthritis, asteoartheritis diabetic neuropathy and psoriasis.

It has significant antimicrobial activity. Capsicin has been suggested for refractory pruritus, pruritus associated with renal failure.

For treatment of urinary urgency, used for unbroken chilblains.

Internally it is taken carminative and treat colic and to stimulate secretion of the digestive juices "as appetizer and digestive". Capsicum is also used to promote cardiovascular health to treat coronary artery disease, and to reduce cholesterol and blood clotting; as a gastroprotective agent in peptic ulcer disease, a pinch of capsicum is excellent in gargles for sore throat and is useful for some types of diarrhea.

Cupsaicin is also increasingly popular as a nonlethal selfdefence spray

Dosages and routes of administration:

Topically: creams (0.025% - 0.075% capsaicin) for al least 2 weeks for beginning pain relief; may use up to qid.

Internally: capsules or tablets 400-500 mg tid. Tinctures 5-15 drops in water (1:5) qid

Adverse reactions:

GIT: cramping, pain, diarrhea, transient broncho constriction.

Integumentary: severe burning itching and stinging; painful irritation of mucous membranes.

Sweating, running nose, tearing of eyes, sneezing, conjunctional edema

Interactions:

Capsicum preparations may decrease the action of Alpha-adrenergic blockers and may decrease the antihypertensive effects of clonidine and methyldopa; MAO inhibitors may promote toxicity (hypertensive crises)

Contraindications:

Should not be used by persons with hypersensitivity and should not be given to children, should not be used on open wounds or abrasions or near the eyes

Pregnancy and lactations:

Should not be used internally during pregnancy and lactation

Special considerations:

Relief occurs after topical use as early as 3 days or may take as long as 14 to 28 days.

Tell the patient to avoid contact with eyes, mucous membrane or nonintact skin.

Caution the patient taking MAO inhibitors or centrally acting adrenergics against use of this herb

Advise the female patient to avoid use of the herb during pregnancy or when breast feeding

References

- Mossby.

Complementary and alter

Encyclopedia

Caraway

Synonyms:

Carum carvi, oleum cari, oleum carvi kummel, kummelol.

Biological origin and part used:

The dried ripe fruits of carum carvi fan. Apicaceae.

Description:

The plant is an erect biennial herb reaches up to 60 cm high distributed over central and northern Europe.

The plant has bipinnate leaves with linear segments.

The flowers are arranged in compound umbels, collected just before ripening.

The fruit is cremocarp and has an aromatic characteristic odor and taste, cremocarp is chocolate to grayish brown has 5 distinct 1ry ridges, internally having four vittae on the dassal side and 2 vittas on the commissural one, and a small narrow apical embryo.

Chemical constituents:

Caraway containing 3 to 7% volatile oil, containing 50 to 68 % of carvone, Dlimonene, dihydrocarvone, hydrocarveol, proteins and fixed oil.

Pharmacology:

    - Caraway relaxes the tracheal smooth muscle and increases the resting force of ideal muscle in guina pigs.
- It did not induce laxative action in guina pigs.
- Caraway oil inhibited skin tumors in female mica, also inhibited croton oil induced skin tumor where it resulted in the disappearance of the tumor and a reduction in the incidence, delay in appearance retardation and regression of establish this inhibition of the toxin-induced tumors in human beigns.
- Caraway oil has been showed to be effective in treatment of H pylori infections, epigastric pain and gastric ulcers.
- Caraway oil is effective against Bacilles, pseudomonas, candida and Dermatomyces spp.

Reported uses:

Caraways or its volatile oil are extensively used as an aromatic carminative, flavoring agent in many pharmaceutical and food preparations. It is claimed to be an effective aid in indigestion, flatulence, colic, hiatal hernia stomach and as a gargle for laryngitis.

Its monoterpenes particulary limonene caused inhibition of carcinogen activation and prevent carcinogen induced neoplasm, it also has been shown to inhibit a tobacco specific carcinogen.

Dosages and routes of administration:

Adverse reactions

Diarrhea (theoretical) and mucous membrane irritation

Caraway oil 1-4 drops in a tsp of nater before meals

Fruit 1-5-6 g crushed fruit crushed and swallowed.

Infusion: 1 to 2 g / 150 ml boiling water, 1-2 times / day

Interactions:

Not known

Contraindications:

- In hypersensitivity to the drug or its oil
- Should not used in gastroesophageal reflux disease

Pregnancy and lactations:

It should not be used during pregnancy (uterine relaxation may occur) ”theoretical“.

References:

- Mossby.
- Complementary and alter.

- Pharmacognosy for pharmacy students; elshamy A.M. etal fifthed, Dar elketab elhadeeth 2003.

Cardamom

Synonyms:

Cardamom seed, malabor cardmom, cardamomum, alpini a cardamomum a momus cardamon, a momum repens, elaci

Biological origin and part used:

The dried ripeor nearly ripe seeds of electtaria cardamomum var. minuscule, fam. Zingiberaceseae, recently separated from the friuts

Description:

Cardamom is native to southern India near the Malabor and Srilanka. It grows abundantly in forests at 800-1500 m above sea level. It is also widely cultivated in India southern Asia, Indonesia and Guatemala.

It is a perennial herb growing to 5 m with mauve marked white flowers and very long lance-shaped leaves. The seed has a strong aromatic odor and an agreeable aromatic pungent taste, for rather small size irregularly angular, 3 to 4 sided, oblong, ovoid, 2 to 4 mm long and up to 3 m broad pale orange to dark reddish brown, usually enveloped by a thin colorless membranceaus, arellus consists of thin brown testa, whitish starchy perisperm in its center, ayellowish transleucent endopperm surrounding a poler oninute embrya, microscopically characterized by the prosenchymatous “fiber line cells” of the epidermis,scleroids of unequal thickend wall and funnel shaped lusnes and mumerous perisperm cells filled with polyhedral masses of adherent starch granules in which embedded mumerous prisms of calcium oxalate. Several oil cells are found.

Chemical constituents:

Volatile oil (4-6%), composed of cineale and α-terpinyl acetate, borneol, linaboal, alpha terpineol, linalyl acetate, alpha-pinene limonene and myrcene

Pharmacology:

Cardamom oil given intraperitoneally was compared with indomethallin for acute carrageenan-induced edema in male rats. A lower cardamom dose suppressed edema to a lesser extent, whereas a higher dose exerted a more potent anti-inflammatory effect.

Oil halved the p-benzoquinone- induced writhing in mice, suggesting a possible analgesic effect.

Also inhibited the stimulant action of acetylcholine, perhaps explaining its role as antispasmodic.

The cardamom oil enhances skin permeation for indomethacin.

Reported uses:

Caramom is one of the oldest spices in the word was used extensively in ancient Egypt to make oerfumes, highly valued bath as a spice and a medicine in Greece and has been employed in ayurvedic medicine in Chinese medicine for thousands of years and is an excellent remedy for many digestive problems.

Cardamom is a widely used flavoring agent for sweets and coffee and as a standard ingredient in curry powder.

Cardamom and volatile oil of cardamom are used to treat dyspepsia, colic, flatulence, irritable bowel syndrome, gallstone congestion and anorexia.

The herb has a long lasting reputation as an aphrodisiac in china; the herb is taken for urinary incontinence and as a tonic.

It is an effective treatment for bad breath, and when taken with garlic helps to reduce its smell.

Dosages and routes of administration:

- There are no human studies to support dosing recommendation.
- 15-30g of powder.
- 5 drops of tincture of tid. 5-30 drops of fluid extract
- Seeds are commonly chewed entire and its powder is often sprinkled on food or included beverages infusion: 1 cup after meals.
- For digestive pain essential oil 10 drops diluted with 4 tea spoonful carrier oil and gently rubs the abdomen.

Adverse reactions:

Contact dermatitis and gallstone colic

Interactions:

Not known

Contraindications:

Persons with gastrooesophageal reflun disease should avoid the used of this herb and persons with gallstones should use it with caution

Pregnancy and lactations:

unti more research is available cardamom should not be used during pregnancy and lactation and should not be given to children

Special considerations:

- Asses for contract dermatitis “if present”, discontinue the use of cardamom.
- Advise the patient not to exceed the recommended dose.

References:

Encyclopedia
Mossby
Complementary and alternation

Cascara

Synonyms:

Buckthorn, sacred bark, Californian buckthorn, Cascara Sagrada, Cortex Cascara, Cortex Rhamni Purshiani, Chitten bark

Biological origin and part used:

Dried entire bark of Rhamnus purshiana fan.
Rhamnaceae stored for at least one year before use

Description:

Rhamnus purshiana is a deciduous shrub or small tree growing to 5 m native to woodlands along the pacific coast of North America.
Cascara bark occurs in quills, channeled or nearly pieces up to 20 cm long, 2 cm broad and 5 mm thick. Has darkbrown or reddish brown smooth or longitudinally ridged, marked with transversely elongated lenticels usually covered with gray or whitish lichen and yellowish green, tufted mass and foliaceous liver worts.
Microscopically it is characterized by thin brown cork cells filled with yellowish brown contents, numerous cortical parenchyma filled with starch granules and scattered cluster orbital of calcium oxalate, numerous group of sclereido and fibers surrounded by parenchyma containing prismatic crystals of calcium oxalate, the sclereids possess thick stratified lignified pitted walls; the parenchyma and medullary ray cells contai a yellow substance, changed to crimson with sodium hydroxide.

Chemical constituents:

Cascara bark contains about 6-9% anthrancene derivatives, structurally belongs to the O – and C- glycosides:
I) The C- type includes
Four primary glycosides known as cascarosides A, B, C and D
Two Aloin: barbaloin derived from the aloeemodin anthrone and the chystaloin derived from chrysophanol anthrone.
II) Various dianthrones, including those of emodin, aloe-emodin and chrysophanol
III) Various dianthrones, including those of emodin, aloe-emodin and crysophanol and heterodianthrones palsmidin A, B and C.
IV) Also emodin, chrysophanol and emodin in the free state

Pharmacology:

The glycosides found in cascara bark exerts their stimulant calthortic action by increasing the tone of the smooth muscle in the wall of the large intestine and have only minor effect on the small intestine.
The drug is transformed by intestinal bacteria into substances that increase peristalsis in the large intestine and help restore intestinal tone.

Reported uses:

Stimulant cathartic, it was traditionally used by Native Americans of the Pacific Northwest as a laxative and is most commonly taken as treatment for chronic constipation and may be safely used as mild and effective treatment over the long term to treat chronic constipation and to encourage the return of regular bowel movements. It is a particularly beneficial remedy if the muscles of the colon are weak and if there is poor like flow

Dosages and routes of administration:

Aromatic fluid extracts 5 ml orally
Capsules 300 mg extract one orally
Tincture (1:5) 5 to 10 ml one-time dose
20-30 mg (Cascaroside A) one-time dose.

Adverse reactions:

Nausea, vomiting, diarrhea, abdominal cramps, laxative dependency
Urine discolovation hematuria, albuminuria, osteomalcia, vitmin and mineral deficiencies fluid and electrolyte imbalance (high doses and extended use).
The fresh drug and that stored less than a year causes severe vomiting and cramps and may cause death.

Interactions:

- Antacids may decrease the action of cascara if taken within 1 hour of the herb, milk may decrease its action
- Continuous use of cascara can cause hypokalemia and enhance the effects of cardio glycoside, antiarrythmatics and thiazide diuetics, avoid concurrent use of cascara with any of them.

Contraindications:

Causes GIT bleeding, obstruction abdominal pain, nausea, vomiting, appendicitis or crohn's disease.
Should not be used by those who are hypersensitive to the drug.

Pregnancy and lactations:

Until more research is available, cascara should not be used during pregnancy and lactation and it should not be given to children.

Special considerations:

- Be aware that cascara appears to be reasonably safe, although the fresher the bark, the higher the risk of adverse reactions.
- Remind the patient that Cascara sagrads products are only for short-term use.
- Inform the patient that FDA has determined Cascara sarade to be generally safe and effective.

References:

Mossby

Complementary and alternation

- Trease, G.E and Evans, W.C, "pharmacognosy", Bailliriere Tandall, London, Philadelphia, Toronto, Sydney and Tokyo, 13th ed. 1989.

Catrip

Synonyms:

Nepeta cataria, Cataria, Catmint, Catnep, Catrup, Cat's-play latwort, Field balm, NIP.

Biological origin and part used:

Dried leaves and flowering tops (aerial parts) of Nepeta cataria family Lamiaceae.

Description:

It is a common perennial downy aromatic herb found native to Europe, North America. It grows in dry wayside places and in mountaineous regions up to attitudes of 1.5 meter, has heart shaped, gray green leaves and whorls of white flowers with purple spots. Catrip is gathered in summer and autumn.

Chemical constituents:

- Iridoids
- Volatile oils containing CIS – trans - nepetalactone and valeric acid, citronellol and geraniol, citral, dipentene limonene.
  N.B. Nepetalactone is structurally similar to the sedative ingredient of valerian root.
- Fatty acids "oleic", linoleic, linolenic and saturated fatty acids, acetic acid, buteric acid in addition to tannins.

Pharmacology:

The volatile oil of catrip produces sedative effects its alcoholic extract produced a sedative effect.

Low to moderate doses caused chichs to sleep, whereas higher doses uppeared to have a paradoxical effect. The psychoactive “hallucinogenic” properties of catnip remaincontroversial.

May be used to inhibit staphylococcus aurous.

Reported uses:

- The herb is markedly antiflatulent indigestion, colic and headache related to digestive problems. The tincture is useful as a friction such for rheumatism and arthritis
- It is a tea for insomnia and restlessness migraine, dysmenorrhea, amenorrhea, amnia, bronchitis, colds, diarrhea and fever hiccups, hives and toothaches.
- It has also been used as a stimulant, antispasmodic diaphoretic and tonic without scientific data to support these claims and to treat common cold and influenza.
- Catnip salve and tea are reported to be falblose remedy for cancer and are believed to have psychoactive and euphoric properties when smoked as cigarette, mind-altering effects may also occur after accidental ingestion.

Dosages and routes of administration:

Capsuks 360 mg dried herb, liquid, elixir, tea and tinctures.

Tincture 2-5 ml tid,

Infusion 1:10, use 1/2 to 2 cups tid.

Adverse reactions:

Headache, malaise, nausea, vomiting and anorexia with large doses.

Interactions:

Alcohol: the effect of alcohol may be enhanced when used with catnip

The effect of sedatives may be enhanced when used with catnip

Contraindications: -

See pregnancy v lactation

Pregnancy and lactations:

Catnip should not be used daring pregnancy because of its possible uterine stimulant action and avoid use during lactation (effects are unknown)

Special considerations:

Advice the pregnant patient to avoid the use of catnip.

Advice the patient to reconsider using catnip as a sleep aid because of lacking of scientific data to support this use.

N.B. the scent and not the consumption of catnip is believed to exert euphoria and sexual stimulation in cats

References:

Encyclopedia
Mossby
Complementary and alternation

Celandine

Synonyms:

Greater celandine, Celandine poppy, Common celandine, Garden celandine, Rock poppy, Swallow wot, Felon wort, Wart wort, Tetter wort.

Biological origin and part used:

Aerial parts, latex and the extracts prepare from the roots and flowering tops of chelidonium majus, fam, papavera ceae.

Description:

- Chelidonium majus fam papaveraceae is a thin stemmed perennial herb growing to a height of 50-90 cm. The herb has a branched woody taproot; the fragile stems are branched with scattered hairs and contain orange latex.
- The leaves are pnnatisect, compound with up to 7 oblong or ovate leaflets with a bluish green underside.
- The flowers have four bright yellow petals and are grouped in small clysters and appear in late spring.
- The fruit is a capsule 5 cm long contains numerous tiny black seeds with a white appendage.
- It is native to Europe, Western Asia and North Africa.
- Flourishes close to human habitations, preferring waste ground, the banks of hedgerows and damp places, the aerial parts of the herb are collected in late spring or early summer.

Chemical constituents:

- Over than 30 isoquinoline alkaloids have been identified, including the majot chelindonine (0.07%), coptisine, allocryptopine, berberine and sporteine, chelebythine, sanguinarine, dl-stylopine.
- The isoquinoline alkaloids contain many structural types, including benzophenenthridenes (chelidonine chelerythrine and sanguinarine) and protoberberines (as berberine and coptisine).

- It also contains other compounds including chelidonic asid and chelidoniol, rutin, quercetin, choline, methylamine, histamine, tyramine, cinamic acid and caffeic acid esters.

Pharmacology:

- Alcoholic extract of dried chelidonium exhibited a reduction in liver injury induced by carbon tetrachloride in rates, also a significant reduction in elevated.
- Plasma levels of liver enzymes andbilirulin was occurred in the treated groups of animals. An absence of fibrotic changes in the chelidonium treated rats was noticed.
- Chelandonine has mild central analgesic and strong spasmolytic properties that primary affect the biliary system.
- Caffeic acid is claimed have choleretic antispasmodic activity, comptisine and caffeoylmalic acid have shown similar spasmolytic activity.
- The total extract of the herb significantly induced bile flow, however it did this without increasing the total output of bile acids.
- An alkaloid fraction contained chelerythrine and sanguinarine as found ineffective against Gram-negative bacteria invitro. However, significant antimicrobial effect was observed against Gram-positive bacteria such as S. aureus and two strains of streptococcus and also against candida albicans.
- Extracts of chelidonium were found to have antiviral effects invitro against adenovirus typs 12,15 and herpes simplex virus type.
- Alkaloids from chelidonium and saguinarine solution inhibited the groeth of trichomonas vaginalis invitro, also it showed a potent inhibition of 5-lipoxygenase in polymorphonuclear leucocytes and 12-lipoxygenase in mouse epidermis, the chllidonium alkaloids chelerythine and sanguinarine have demodtrated anti-inflammatory activity in the carrageenan ratpassoedema test.
- The water-soluble purified methanol extract of dried chelidonium demonstrated high tumor inhibition with relatively cytotoxic side effects. An alcohol extract of rhizomes and roots of chelidonium exhibitrd cytotoxicity against a carcinoma of the nasopharynx invitro. One of the cytotoxic principles was found to be the alkaloid coptisine.
- A monograph included with ukrain “the semisnthetic derivative of celandine” referred to a claim that a nutional cancer institute (USA), study showed drug action against human cancer. However, ukrain has

not been approved by the kill cancer cells by inducing apoptosis and inhibiting DNA, RNA and protein synthesis.

- Extracts of celandine inhibit keratinocyte proliferation. Possible use in treatment of skin disease such as waters and psoriasis.

Reported uses:

- Greater celandine has been used for thousands of years to treat and clear the eyesight especially cataracts.
- It was reported that swallows use the latex that flows from cuts in the stems or leaves as a means to sharpen their eyesight.
- It acts as a mild sedative, relaxing the muscles of bronchial tubes, it has been used in western and Chinese herbal traditions to treat bronchitis, whooping cough and asthma.
- It has been known to be useful in liver disease digestive.
- Its antispasmodic effect extends to the gall bladder and helps to improve bile flow, this would partly accounts for its in treating jaundice gallstones and gallbladder inflammation and destruction pain as well as its long standing reputation as a detoxifying herb.
- Recently celandine was found to stimulate the flow of bile and pancreatic enzymes.
- The plant latex has been used to remove warts, soften calluses, corns and loosen bad teeth.
- Used externally to soothe and encourage the healing of skin conditions such as eczema, psoriasis and malignant skin tumors, which are slowly broken down by the effect of its protein dissolving enzymes.
- Chelidonium alkaloids have been used from the late 1800s in cancer treatment; it has been used to treat clonic polyposis, papitlomas, condylomas and nodules.

N.B. a semisynthetic derivative of celandine alkaloids conjugated with thiophosphoric acid is available only in Europe under the name Ukrain Ukrain was reported to be toxic to malignant cells and has amimunoregulatory properties, case reports and studies obtained through medline document Ukrain's success in treating several types and sites of cancer including breast colorectal cervical, testicular, esophageal, wethral and ovarian malignant melanoma; opic nerve astrocytoma, and kaposi's sarcoma in patients with AIDS.

Dosages and routes of administration:

- Liquid extract (1:2), 1-2 ml 3 times daily tincture 1:10 in 45% ml 3 times daily (short term use of higher doses equivalent of 3 g per day may be necessary in china 3-9 g / day or even more is used.

N.B. 1- these doses are generally administrated used by decoction and this method may not efficiently extract chelidonium alkaloid.

2- high doses should be restricted to short-term use and long-term use of normal doses is not preferred.

Dosage of ukrain is 5 to 20 mg per I.V. injection every other day depending on tumor mass, speed of growth, extent of the disease and the patient immune status.

- The average daily dose is 2 to 4 g of drug in liquid or solid extracts, equivalent to 12 to 13 mg total alkaloids calculated as chelidonine

Adverse reactions:

Dizziness, Drowisness, Fatigue, Hypotension, Insomnia, Nausea, Polyuria, Possible embryotoxic effect (animal studies) possible reversible hepatotoxicity, Restlessness thirst, tingling, itching, stabling pain in tumor area, it latex causes dermatitis and oral ingestion has been reported to cause abdominal pain, vonsiling, diarrhea, fainting, severe stomatitis, gastroenteritis, hemorrhagic gastritis, coma and even death.

Contraindications and Interactions:

Celandine should not be given to those with biliary obstruction, glaucoma or hepatic disease, cardiac glycosides and ukrain, induce possible ECG changes.

With morphine, may reduce efficacy.

With sulphonamide may reduce efficacy.

Pregnancy and lactations:

Should not be used during pregnancy and lactation

Special considerations:

- Given the nature of the alkaloid content of this herb long term use (except topical) is not preferred.
- Notice that celandine is not related to the plant known as lesser celandine, Ranunculus ficaria fam Ranunailacea.
- Warn the patient to avoid concomitants use with cardiac glycosides, andidiabetics, analgesics and antibiotics.
- Warm the patient that oral ingestion over permitted doses has caused major toxicity.

References:

- Principles and practice of phytotherapy; "Simon Mills and Kerry Bone".
- Profess. Handbook Complementary and alternation.
- Mossby
- PDR for herbal medicines; 2nd ed. Medical economics company; Montvale, New Jersey 2002

Centella

Synonyms:

Gotu kola, Indian pennywort, centella asialica, hydrocotyl asiatica, centella cariacea, hydrocotyl lunata, trisanthus cochia , chinensis, barmi, bokkudu, brahma, herba kakikuda, herba pepagan, mandooka.

Biological origin and part used:

The dried aerial parts or the dried entire plant of centella asiatica fam. Apiaceae.

Description:

- Gatu kola is native to India and the southern U.S. it also grows is tropical and subtropical parts of Australia, Southern Africa and South America.
- The aerial parts are harvested allover the year. It is a perennial creeping herb growing to 50 cm with fan shaped leaves more or less cupped, entire genate or lobulate, glabrous long petioled, (7-15 cm) several from the root stocks and 1-3 from each node of the stems; entire crenate or lobulate, glabrous, stipudes shart, adrate to the petiole forming a sheathing base
- Flowers are single umbel, leaving 1-5 sessile, white or reddish flowers. Fruit small comperessed oemocarp
- It has a long prostrate stem emerging from the leaf-axils of a vertical rootstock, fili form, often reddish with long internodes and rooting at nodes.

Chemical constituents:

Triterpenoid saponins Asiatic acid and modecassic acid and their derived tri terpene ester glycosides, asiaticoside andmadecassoide, brahmoside, thankuniside alkalois "hydrocotyline" and bitter principles vellarien.

Pharmacology:

Saponins of centella, invitro stimulated the production of human collagen involved in wound heating and stimulated of collagen synthesis in foreskin filnor blast monolyer cultures.

Asiaticoside accelerated the healing of superficial postsurgical wounds and ulcers by accelerating cicatricial action.

Increased the tensile strength of newly formed skin. Extracts of C asiatica rich in Asiatic asides are valuable in the treatment of hypertrophic scars and keloids, decrease fibersis in wounds preventing new scar formation.

Extracts of centella effectively treated stress-induce stomach and duodenal ulcers in humans. The mechanism of action appears to be associated with a central nervous system depressant activity of C Asiatic awing to increase in the concentration of GABA in the brain.

70% ethanol extract produced anticonvulsant activity. Also proved its efficiency in wound healing and preventing shrinking and swelling in caused by infection and further inhibited hypertrophic scar formation, also demonstrated a pasitive therapeutic effect in the treatment of various verous disordes, where the venous distension an oedema improved significantly.

Reported uses:

Gotu kola is an ancient ayurvedic remedy that is now used extensively in the west.

It is cleansing herb for skin problems (ecpoma and skin ulcers), digestive disorders, stress induce stomach and duodenal ulcers, strengthens nervous function. Memory, tonic antirhumatic, mild iuretic, sedative and peripheral vasodilator. Asiaticoside stimulates wound healing.

Extracs have been employed topically to accelerate healing, post-truma wounds and to treat second and third degree burns, prevention of keloid and hypertrophic scars. It is reported to be used in treatment of leprous ulcers and venous disorders, also to promote hair growth.

Speed up collagen formation and antioxidant. Reduce fertility, for dysentery in children. Astha and bronchitis

Claims for gota kola uses as antiposoriatic, antihyoertensive and anticancer agents

Dosages and routes of administration including dosage forms:

- Oral dose 0.33-0.68 g tID
- Paste and poultice made by 10 g powder mixed with 25 ml water and apply to affected skin.
- Infusion: 35 ml twice a day (for rheumation)
- Tincture: 30 drops with water 3 times a day (Nerve tonic)

- Capsules: 221 up to 450 mg one/day.

Adverse reactions:

Allergic dermatitis, hyperglycemia, hypercholesterolemia, pruritus and sedation (with large dose)

Interactions:

Antidiabetic, cholesterol lowering agents

Contraindications:

Use cautiously in patients with a history of contact dermatitis.

Pregnancy and lactations:

Contraindicated

Special considerations:

- Its active constituents have been reported to cause CNS depressant effects, monitor the patient for these effects
- Advise the patient that drowsiness and sedation may occur
- The herb should not be used continuosly for over 6 wweks.

References:

- Encyclopedia of Medicinal plants
- WHO monogragh.
- Complementary and alternation.

Chamomile

Synonyms:

German chamomile, English chamomile, common chamomile, Hungarian chamomile , Sweet false chamomile, true chamomile, wild chamomile, flos chamomile, manganilla, babunj, baboonig

Biological origin and part used:

True or German chamomile is the dried flowering heads (capitulae) of chamomilla recutita = Matricaria recututa = Matricia chamomile fam. Asteraceae. Or anthemis nobilis (asteraceae) known as Roman chamomile.

Description:

Herbaceous annual herb 10-30 cm in height, has erect branching stems and atternate tripnnately divided leaves below and binnately divided leaves above, the capitulum up to 1.5 cm in diameter, compruses of 12-20 white ligulat florets surounding a conical hollow receptacle on which numerous yellow to orange-yellow tubular (disk) floretsare inserted and surrounded by

a flattened inbricated involuere. Capitulum has a pleasant aromatic odour and a slightly bitter aromatic taste. Remeniscent of apples.

Microscopically characterised by presencce of schizogenous secretory ductin the receptacle and bracteoles; lignified cells at the bases of the ovaries absent. All parts of the florets bear composite glandular hairs wuth slhort biseriate stalk and enlarged head formed of several tiers each of two cells; pollen grains, spherical with numerous short spines.

Chemical constituents:

Conatin an essntialoil (0.4-1.5%) loving an intence blue colour due to its ehamsulence content (1-15%) in addition to α-bisabolol spiro etherbisabololosides A,B and agulents.

Flower head contain also flavonoids up to 8% and includs: apigenin, anthemiden, luteolin and rutin, bitterglycaside (anthemic acid), angelic and tiglic acids,farnesol, nerolidol and germacranolide, amyl and isolutyl alchohol. In addition to coumarin glycoside herniarin, umbelliferone and tannins

Pharmacology:

- Both chamomile extract α-basabolol shawed antipeptic activty invitro.
- Numerous invitro and invivo studies have demonstrated the antiinflammatory effects of the drug.
  The antiinflammatory effects of chamomileextracts, the volatileoil, and the isolated constituents have been evaluated in yeast-induced fever in rats and agaunst ultra violet radiation-induced erytjema in guinea-pig models.
- The preincipal antiinflammatory and antispasmodic constituents of chamomile appear to be maticin and chamazulene (-)α-bisabolol.
- Intvitro, chamomile extracts inhibited both cycooxygenase and lipoxygenase and thus the production of prostaglandins and leukotriens. B isabolol was the the more active ingredient of chamomile extract.
- Ahydroalchoholic extract and the volatile oil of chamomile inhibited the growth of staphlyloccus aureus, streptococcus mutans, group β streptococcus, and streptococcus mutans, group β streptococcus, and streptococcus salivarius, bacillus subtilis.
- The flavonoid fraction was very effective in reducing inflammation Apigenin luteobin were more active than indomethancin and phenylbutazone.

- The spasmolytic activity of chamomile has been attributed to apigemin. Apigenin-7-glucoside and (-)-α-bisabolol, which have activity similar to papaverine.
- Intradermal application of liposomal apigen-7-glucoside inhibited on a dose- dependant mamer, shial inflammation
- Intrperitoneal administration to mice of a lyophilised infusion of chamomile decreased based motility, motor activities and potentiated hexobarbital-induced sleep, chamomile depresses the CNS.
- One of the flavonoid components of chamomile apigenin, has shown an affinity for benzodiazepine receptors which accounts for the antianxiety and sedative quantities of this herb, numerous studies have documented the ability of chamomile to decrease anxiety and promote relaxation and sleep.
- The chamomile flavonoids has demonstrated ahypeoglycemic effects, however, the current recommended dose for humans of 0.05% to 0.1% is too low to have any significant effect on glucose levels.
- Apigenin, in chamomile extract, exerted a significant effect on DNA synthesis in estrogen-dependent and estrogen-independent human breast cancer cells.
- Chamomile extracts showed a statistically significant decrease in the wound size and drying tendency in a double blind study.
- Topical application of chamomile extract in a cream buse was found to be supervirto hydrocortisane for reducing skin inflammation.
- Chamomile preparations have also been found to be beneficial in the treatment of radiation mucosilis awing to lead and neck radiation and systemic chemotherapy

Reported uses:

German chamomile has been taken for digestive problems since at least 1st century AD, gentlle and efficacious, it is very suitable for children.
It is voluble for symptomatic treatments of digestive elements such as dyspepsia, epigastric bloating, impaired digestion and flatulence, colic, acidity, it is also used for hiatus hernia, peptic ulcer and irritable bowel syndrome its spiroether is responsible for its strong antispasmodic action and eases tense muscles useful in the treatment of restlessness and in mild eases of insomnia due to nervous disorders, it relives irritability and promotes sleep especially in children.
The herb is useful for catarrh for has fevers asthma.
The chamazulene content of chamomile oil is markedly antiallergenic and antiinflammatory, externally it is useful in treatment of sore, itchyskin,

shincracks, bruises, sore nipples and ecyema, irritations and infections of the mouth and gums and haemonhoids, it also relieves eyestrain.

Apouthice can be applied to sore breast, bites and stings.

Inhalation of it causes symptomatic relief of irritations of the respiratory tract due to the common cold.

Dosages and routes of administration including dosage forms:

- Capsules 300-400 mg; standardized to 1% apigen and 0.5 relative oil, 6 times / day.
- Fluid extract (1:1, 45% ethanol). 1-2 ml tid.
- Tincture 3-10 ml tid. (1-5, 45 ethanol)
- Children; tea ½ - 4 cups daily; tinc: ¼ - 1 tspoqid (infusion 4 tsf in 500 ml water)

Topical: 1 ½ cups water mixed with 2 tsp dried flowers cover, let stand 10-15 min., strain, apply as a compress.

Ointment: rub to sore or inflamed skin prepared by mixing 60 g dried herb or 150 g fresh herb to 500 g of petroleum Jelly or soft paraffin wax.

Adverse reactions:

It may cause allergic reactions in sensitive individuals a few cases of anaphylacte reactions to the ingestion of chamomile have been reported, topically may causeburning of the face, eyes, and mucous membranes also systemic hypersensitivity

Interactions:

- Chamomile from chamomile (anthemisnobilis) may increase the effects of alcohol “theoretical” may interfer with the actions of anticoagulants avoid concurrent use.
- Chamomile may increase the effective of other sedatives, avoid concurrent use.

Contraindications:

Gross hypersensitivity may result from allergy to sun flowers, ragweed, echinasea, fever few and milk thistle.

Pregnancy and lactations:

- Don’t use the oil externally during pregnancy.
- Roman chamomile is a known abrotifacient and should not be used during pregnancy and lactation but it may be given to children.
- German chamomile has no adverse effects during pregnancy, non teratogent, and there is no information available concerning its use during pregnancy and lactation or in pediatric use.

Special considerations:

    - The flowers should be picked on the day they open, when the active constituents are at their highest concentration.
- Inform the patient that the fresh flowers may cause dermatitis.
- Assess the patient for use of alcohol, anticoagulants and sedatives.
- Caution the female patient not to use Anthemis nobilis during pregnancy as it is a known abortifacient. " Roman chamomile"
- Instruct the patient to avoid using chamomile concurrently with sedations or alcohol

References:

- WHO monographs
- Mossby
- Professional's Handbook of Complementary and alternation. Encyclopedia of Med. PL

Chaparral

Synonyms:

Creosote Bush Greese wood H ediondilla

Biological origin and part used:

The dried aerial parts of larrea tridentate and L. divaricata fam zygophyllaceae.

Description:

It is dwelling evergreen thorny shrub growing to 2 m. laving small finely divided leaves found in the deserts of Southwestern US and Mexico

Chemical constituents:

About 12 percent resin and phenolic lignans, including nor dihydroguaiayretic acid (NDGA), nor isoguaiasin, dihydroguaiaretic acid, and 3-demethoxyisoguaiasin.

Pharmacology:

The activity of chaparral is attributed to NDGA, a lipoxygenase inhibitor. Despite studies showing the invitro anticancer effect of NDGA, NCI found no such effect invivo. Some reports suggest that NDGA may stimulate certain malignancies, such as renal cell carcinoma. Previous studies demonstrated the antiproliferative activity of chaparral on T-lymphoma cells inculture. NDGA has been shown to inhilbit proviral expression and this may be able to interrupt the life cycle of the causative organism in HIV infections. It showed antimicrobial activity against growth of yeasts, molds

and bacteria. An invitro study of not hippocampal neurons suggest that NDGA may play a neuroprotective role in Alzheimer's disease.

One study revealed its glucose-lowering ability with type 2 diabetes.

Reported uses:

History and folklore wide used by Native Americans, it was taken in the form of decoction to treat stomach troubles and diarrhea, and young twigs were used for toothache.

The leaves were applied as a poultice for respiratory problems and as a wash for skin problems.

Until recently, it was thought to be a beneficial remedy for bronchitis, colds, rheumatic disease, venereal infections urinary infections and certain types of cancer, especially leukemia.

Chaparral was taken internally for skin afflictions such as acne and eczema and applied as lotion to sores.

N.B. in the early 1990s sales of chaparral were banned in US and Britain due to concern over its potential hepatotoxicity.

Dosages and routes of administration:

- Capsule 2-4 /day
- Tincture 1-3 ml (1:5) tid.
- Topically apply strong decoction tid.

Adverse reactions:

Hepatotoxicity, hepatic failure, few cases of acute or subacute hepatitis have been reported, it increases ALT, AST, total bilirubin and urine bilirubin.

Some liver damage progressed to cirrhosis and acute liver failure.

Renal cell carcinoma, renal cystic disease and contact dermatitis.

Interactions:

Not known

Contraindications:

With hepatic or renal disease should avoid the use of this herb.

The American herbal products association (AHPA) has recommended that chaparral products not be sold until the hepatotoxicity question has been answered,

Pregnancy and lactations:

Until more research is available, chaparral should not be used during pregnancy and lactation and should not be given to children.

Special considerations:

- Use of chaparral has been associated with severe irreversible hepatotoxicity, some times requiring liver transplantation.

- Monitor the patient who has taken this herb for changes in liver function, jaundice, fatigue and other signs of hepatotoxicity.
- Caution the patient against use of chaparral because of its strong hepatotoxic property.
- Chaparral is considered to be an unsafe herb and was removed by the FDA from its GRAS list since 1970
- Anecdotal reports indicate that chaparral tea was used as anticancer agent from the late 1950s to the 1970s.

References:

- Encyclopedia of Medicinal plants
- Mossby
- Complementary and alternation

Cinnamon

Synonyms:

C. verum as Batavia Cassia, Batavia Cinnamon, Cassia, Cassia lignea, Ceylon cinnamon, Chinese cinnamon, cinnamonum, Chinese padding cassia, Panang cinnamon, Saigon cassia, Sigon cinnamon, Canela, dalchini, clar sini quirfa

Cinnamomum cassia as: Chinese cassia, Chinese cinnamon, Annan cinnamon cassia, Cassia bark, Cinnamon bark, Lavanga-pattai, Dalchini, Guipi Vietnam cinnamon

Biological origin and part used:

Cinnamon consists of the dried inner bark of the shoots of cinnamonum zelanicum "zaurus cinnamonum = cinnamum verum" or of the trunk bark of cinnamumum cassia = cinnamum aromaticum family lauraceae.

Description:

Found as thin decorticated bark cinnamomum vercum and occurs in closely packed compound quills of single or double quills, surface, smooth yellowish brown, longitudinally striated, the inner surface is slightly darks and longitudinally striated. Fracture short fibrous, odor, characteristic and aromatic, taste, characteristic, slightly sweet, aromatic and astringent.

Cinnamomum cassia:

Occur as entire channeled or quilted, thicker than C. verum bark, entire, outer surface, grayish, rough wrinkled and with transverse lenticels.

Inner surface, reddish brown, longitudinally striated texture, hard and fragile, fracture uneven, odor, characteristic and aromatic taste, Slightly sweet, fragrant and astringent.

Chemical constituents:

Volatile oil to 4% rich in cinnamaldehyde 65-75% and other components in small amounts include phenols and terpenes such as eengenol, trans-cinnamin acid hydroxy cinnamaldehyde, O-methoxy cinnamaldehyde, O-3-(2-hydroxy phenol)-propionic acid, cinnamyl alcohol, tannins, mucilage, procyanidins and coumarins.

Pharmacology:

Antibacterial and antifungal activity of the volatile oil has been established invitro, it is active against wide rang of bacteria viz: bacillus subitilis, E. coli, staph aureus, salmonella typhimurium, pseudomonas aeruginosa.

It is active against the following fungi: Aspergillus spp, clasoporium wernekii geotrickum candidum, klockera apivulata, candida lipolytica and C. albicans.

These effects are attributed to methoxy-cinnamalodehyde.

The volatile oil has carminative effect and decreases smooth muscle contractions in guinea. pig trachea and ileum and in dog ileum, color and stomach (due to cinnamaldehyde)

A reduction of stomach, intestinal motility and a decrease in the number of stress and serotonin induced ulcer in mice have been described.

An ethanol extract of the drug inhibits histamine and barium-induced contractions in guinea-pig ileum. N.B. the hot water extract was not active.

Reported uses:

Warning stimulant carminative, antispissmodic antiseptic and antiviral.

It has been traditionally taken as a worming herbs for “cold” conditions, often in combination with ginger, stimulate circulation especially to fingers and toes, traditional remedy for digestive problems such as nausea, vomiting and abdominal pain diarrhea, as well as for aching muscles and other symptoms of viral conditions such as colds.

It is used specifically in the treatment of debility and convalescence; it has a slight encouraging menstrual bleeding and pain associated with amerrhoea and dysmenorrhoea.

In India it is taken after childbirth as a contraceptives.

In folk medicine (not supported by experimental or clinical data), it is used in the treatment of impotence, frigidity, dyspnoea, inflammation of the eye, leucorrhoea, vaginitis, rheumatism neuralgia, wounds and tooache.

Dosages and routes of administration:

Crude drug 2-4g / day
Volatile oil 0.05-0.2g
Tincture 20 drops up to 4 times /day
Infusion 1/2 cup 2-3 times / day

Adverse reactions:

Allergic reactions of the skin and mucosa have been reported , facial flushing gingivitis, glossitis, increased breathing and perspiration, shortness of breath.

Interactions:

Decrease dissolution of tetracyclines (invitro), however no clinical interactions are reported.

Contraindications:

In cases of fever of unknown origin, stomach or duodenal ulcers and in patients with an allergy to cinnamon or Peru balsam.

Pregnancy and lactations:

Available data are not sufficient for an adequate benefit / assessment, however, it should not be used during pregnancy and during lactation.

Special considerations:

Advise the patient that cinnamon or its components can cause allergic type reactions and mucosal membrane reactions

Advise the patients that the volatile oil of cinnamon may cause symptoms of toxicity to child as burning sensation the mouth, chest and stomach, double vision, dizziness, vomiting and subsequent collapse.

References:

- Encyclopedia of Medicinal plants
- WHO monograph on selected medicinal plants vol 1, Geneva, 1999.
- Complementary and alternation

Cranberry

Synonyms:

Bog cranberry, Mountain cranberry, small ganberry, isokarpola, pikk ukarpola, massh apple.

Biological origin and part used:

The powdered concentrate or the juice of the berries of vaccinium macrocarpon fam ericaceae,

Description:

Vaccinium macrocarpon is a small slender, evergreen shrub growing in various climates, most notably in acidic logs, from Tennessee to Alaska. It

reaches 30 high, les oval dark green leaves, pink flowers and round or slightly pear-shaped red barriers, it is widely cultivated in north-eastern US.

Chemical constituents:

Cranberry contains tannins of the catechin proanthocyanidin types and polyphenols, flavonous and vitamin C, and numberous plant acids including citric, malic, quinic and benzoic acids. Carbohydrates especially fructose and oligosaccharides

Pharmacology:

Studies in mice and humans have demonstrated oranberry's ability to interfere with bacterial adherence to uroepithelial surfaces.
Invitro studies using cranberry and blue berries have shown possible antitumar activity.

Reported uses:

- A classic remedy for urinary tract infections can be used as a nonantibiotic to prevent and to treat urinary tract infection and to prevent recurrent infection such as cystitis, urethritis.
- Its juice, extract or powdered berries was significantly inhibited bacterial adherence to the urinary tract.
- It will help to disinfect the urinary tubules and may be taken for problems associated with poor urinary flow such as enlarged prostate and bladder infections. The catechins and proanthocyanidins are probablyresponsible for this action
- Cranberry may also be used long term to prevent the development of calcium carbonate urinary stones.

Dosages and routes of administration including dosage forms:

300-500 ml juice (10-20%) orally per day.
2 capsules 500 mg of fruit concentrate / day

Adverse reactions:

Well tolerated except for possible diarrhea if excessive quantities are ingested.

Interactions:

No significant interactions identified.

Contraindications:

Use causiously in patients with benign prostatic hypertrophy and urinary abstruction.

Pregnancy and lactations:

No available studies.

Special considerations:

Advise the patient to drink sufficient fluids to ensure adequate urine flow.

Remind the patient to consult a physician if the signs of an resolving UTI (painful urination, urinary bleeding) continue or worsen

References:

- Complementary and alternation.
- Encyclopedia of Medicinal plants
- Mossby

Echinaceae

(ekinacea)

Synonyms:

Echinacea angustifolia D.C. var angustifolica, Brauneria angustifolia Heller, E. pollide var., angustifolia (D.C.) cronq.

Echinacea purpureadg.

Amirican cone flower, block Sampson, cock up head, Kansas snakeroot, Indian head, purple coneflower root, scurvy root, Rudbeckia, black susans, hedgw hog. The juice from the stem, leaves, rhizomes and the whole plant.

Biological origin and part used:

The fresh or dried root of enchinaceae angustifolia D.C var angustifolia or its variety strigosa McGregor, or E-pollida (Nutt.) or the whole plant of E. purpurea. Family Asteraceae

Chemical constituents:

Caffeic acid derivatives: echeniocosides (0.4-1.7%), cyarin, chicoric acid. Cynarin is present only in E.angustifolia, distinguishing it from the closely related E. pallida

Alkamides: about 20 alkamides, mostly isobutyl amides of c_{11}- c_{16} straight chain fatty acids with olefinic or acetylemic bonds.

Volatile oil (0.2-2%): pentadecaiene, 1 pentadecene, ketoalkynes, ketoalkanes and humulene.

Solyalkanes and Polyalkenes

Flavonoids: as rutin

Polysaccharides: Heteroxylan and arobino-rhamnogalactan, inulin. Trace amount of pyrolizidine alkaloids tusilaquine 0.006% greatly less than toxic levels and also lack 1-2 un-saturation of necine ring

Pharmacology:

Numerous in vitro an in-vivo studies have documented the activation of an immune response after treatment with Radix Echinacea extracts; this by three mechanisms:

Activation of phagocytosis

Stimulation of fibroblasts

Increasing respiratory activity and causing increased mobility of leukocytes.

The 5 components of Echinacea extracts viz, coffic acid derivatives: Alkamides, polyalkanes, polyalkenes and polysaccharides in addition to the volatile oil are responsible for the following oharmacological action:

Inhibition of hyaluronidase activity.

Stimulation of the activity of the adrenal cortex.

Stimulation of the production of properdin (serum protein).

Stimulation of interferon production

The lipophilic amides, alkamides and caffeic acid derivatives appear to contribute to the immunostimulant activity of the alchoholic Echinacea extracts by stimulating phagocytosis of polymorphonuclear neutrophil granulocytes.

The polysaccharide contents including both heteroxylan wich activated phagocytosis and aralind golactan, which promotes the release of tumor necrosis factor and the production of interleukin-1 and interferon beta, have also been implicated in the activity of aqueous extracts and the powered drug when taken orally. The immunostimulant activity of the drug and its extracts appears to depend on the combined effects of several constituents.

Echinacea extracts inhibit streptococcal and tissue hyaluronidase. Inhibition of tissue and bacterial hyaluronidase is thought to localize the infection and to prevent the spread of causative agents to other parts of the body. Indirect effect on the hyaluronic acid – hyaluronidase system has been reported.

Stimulation of new tissue production by increasing the activity of fibroblants and stimulation of both blood and tissue produced phagocytosis, appear to be involved in this mechanism.

Echinacea extracts have anti-inflammatory activity. An alkamide fraction from Echinacea roots markedly inhibited activity invitro in the 5-tipoxegenase model. Topical application of a crud polysaccharide extract from Echinacea has been reported to reduce inflammation in the rat paw oedema model.

One placebo controlled clinical study of 160 patients with infections of the upper respiratory tract has been performed significant improvement was observed after patient were treated with aqueous alcoholic tincture (1:5) at 90 drops 1 day (900 mg roots). The duration of the illness decreased from 13 to 9.8 days for bacterial infections and from 12.9 to 9.1 days for viral infections another study found negative results.

Immunosupression is thought to occur after extended therapy with Echinaceae.

Reported uses:

- In Native American medicine, it is use as a remedy for toothache and sore throat, rabies, snakebite and septic conditions.
- Echinacea is the most important immune stimulant in Western herbal medicine. It is used for bacterial infections, especially chronic fungal and viral infections.
- It is also good for chilblains, colds, flue respiratory problems, skin disorders and throat infections “as gargle”.
- The herb is helpful remedy for treating allergies such as asthma.
- It is a good wound healer and has an anti-inflammatory, antibiotic and detoxifying effect.

  N.B. its immuno-stimulant activity and its role as supportive therapy for colds and infections of respiratory, urinary tracts are supported by clinical studies, while its value in treatment of yeast infections, side effects of radiation therapy, rheumatoid arthritis and food poisoning are not supported by experimental or clinical data.

Dosages and routes of administration including dosage forms:

- Parentral: dose individualized to age and condition. Parentral route not used in USA, herb is used parentarlly in germany.
- Oral dasage:
  - Capsules: 500 mg – 1g tid
  - Herb containing powder: dried root 0.5-1 g tid (used as tea)
  - Fluid extract: 1-2 ml tid (1:1 dilution).
  - Freeze dried plant: 325-650 mg tid.
  - Pressed juice: 6-9 ml daily in divided doses (25:1 dilution 22% alcohol).
  - Solid dry powdered extract: 150-300 mg tid (6-1 dilution or standardized to 3.5% echinocosides).
  - Tea: 2 teaspoonful (4 g) in 15 ml hot warter.
  - Tincture: 15-30 drops.

Adverse reactions:

Hypersensitivity, acute asthma attack specially for patients allergic to plants of the family composition. However, adverse effects are uncommon. Studies using large dosages in animals demonstrated no side effects.

Interactions:

- Echinaceae may inhibit cytochrom P450 3A4 enzymes. The action of certain vaginal creams as econazole may be decreased.
- It may decrease the effect of immunosuppressant and should not be used immediately before, during or after transplant surgery.
- Echinaceae may increase ALT & AST lymphoctes counts, serum immunoglobulin E(IG E), blood erythrocyte sedimention rate (E S R).
- High doses of the herb interfere with sperm enzyme activity.

Contraindications:

It should not be used by persons who have auto-immune disease such as lupus erythromatosus, multiple sclerosis HIV/AIDS, or collagen disease or by those with tuberculosis or hypersensitivity to herbs of family Asteraceae. Immuno-superssion may occur after extended therapy with this herb, do not use for longer than 8 weeks without a 3 weeks rest period.

Pregnancy and lactations:

Echinaceae should not be used during pregnancy (one study showed no harmful effects during the first trimester) and lactation and should not be given for children younger than two years of age.

Special considerations:

- Advise the patient taking the herb for a prolonged time that over stimulation of the immune system and possible immune-suppression may occur.
- Advice the pregnant or breast feeding patient to avoid the use of this herb.
- Know that many tincture contain significant concentrations of alcohol (randing from 15% to 90%) and may not be suitable for children, alcoholic patient and patients with liver disease or those taking disulfiram or metronidazole.

References:

- WHO monographs on selected medicinal plants vol. 1., Geneva, 1999
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Eucalyptus

Synonyms:

Eucalyptus globules, blue gum fever tree, gum, red gum, stringy bark tree, Tasmanian blue gum.

Biological origin and part used:

Eucalyptus is now cultivated throughout the world. It is native to Australia. Plant parts used are branch tips, leaves, and oil. Family

Description:

Large, spreading tree with smooth creamy white, pealing bark and ovate, silver-blue juvenile foliage. The glossy adult leaves are sickle-shaped.

Chemical constituents:

- Volatile oil contains eucalyptol and cineole, alpha pinene, aromadendrene, globuol, tran-pinocarveol, limonene, eucalyptus.
- Flavonoids: quercetun, rutin, hyperoside.
- Other constituents: tannin, fatty acids, fatty alchohol, aromatic compounds.

Pharmacology:

Antimicrobial action

Cineole has been shown to exert significant antimicrobial effects against both gram-positive and gram-negative bacteria as well as some fungi.

Decongestant action:

It eases breathing by opening the nasal passages and sinuses.

Anticough effect:

It stimulates production and secretion of saliva. This, in turn, activates the swallowing reflex. Voluntary swallowing can suppsess an impending cough. Taken orally eucalyptus oil aids in expectorating secretions

Topical effect:

Topically, the oil acts as mild counter irritant and inhibits prostaglandin biosynthesis.

Reported uses:

Treatment of nasal / pulmonary congestion, sinusitis and pharyngitis.

Antipasmadic to treat irritable bowel syndrome.
Treatment of gallstones, kidney stones and cystitis.
CNS stimulant.
Used topically as an antiseptic for wounds.

Dosages and routes of administration including dosage forms:

Adult oral doses (to be diluted before use)

Eucolyptol: 0.05-0.2 ml.
Eucalyptus oil: 0.05-2 ml or 0.3-0.6 g daily.
Fluid extract: 3 g.
Topical essential oil: several drops subbed into skin as needed.
Topical oil or semisolid preparations: 5-20% as needed.

Adverse reactions:

Epigastric burning, nausea, vomiting, diarrhea, anorexia, hypersensitivity reactions, confusion, delirium, dizziness, seizures.

Interactions:

- Eucalyptus may decrease effectiveness of amphetamines and barbiturates.
- Concomitant use with insulin or oral antidiabetic drugs can interfere with diabetic control.

Contraindications:

- Should not be given to children under 2 years.
- Should not be used near mucous membranes or the face.
- Persons with hypersensitivity to eucalyptus or those with kidney, gastrointestinal or sever hepatic disease should not use this herb.

Pregnancy and lactations:

Until more research is available, eucalyptus should not be used in pregnancy and lactation.

Special considerations:

- Assess for hypersensitivity reactions, CNS reactions and for use with amphetamines, barbiturates and antidiabetic agents.
- Instruct the client to dilute orally used products and to store eucalyptus products in a cool, dry place, away from heat and moisture
- Alert the client that poisoning of children has occurred with only a few drops of eucalyptus.
- Use extreme caution if used internally.

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- Jellin, J.M. etal. Natural medicines comprehensive database, third edition, Stockton, CA, therapeutic research Faculty,2000
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- Weiner, M.A. and Weiner, J.A., Herbs that heals prescription for herbal heating, Quantum Books, Mill Valley, CA,1994.

Fennel

Synonyms:

Foeniculum vulgare Mill, F. officinale All and Anethum foeniculum, common, sweet or bitter fennel, carosella, garden fennel, large fennel, wild fennel.

Biological origin and port used:

Fennel is found in Asia and Europe and is cultivated in United Kingdom and the United states.

Family Apiaceae (Umbelliferae).

Seeds are the plant past used.

Description:

Fennel is a tall, handsome biennial or perennial with erect, hollow stems, and glossy pinnate folige dull yellow flowers are produced in summer, followed with gray-brown seeds.

Chemical constituents:

Volatile oils (anethole,dianethole, photoanethole, fenchone, estragole, limonene, camphene, alpha pinene), fixed oils (oleic acid, linoleic acid, petroselinic acid), tocopherol, flavinoids (kaemperol), vitamins, minerals, umbelliferone, terpinene, terpinolene.

Pharmacology:

Antimicrobial action

Fennel possesses bacteriostatic action against: Aerobacter aeroginosa, Staphylococcus albius, Staphylococcus aureus.

Estrogenic action

Anethole may influence milk secretion by comepeting with dopamine at receptor sites, thereby reducing the inhibition by dopamine of prolaction secretion. As a result, it increases milk secretion

Other actions

Fennel promotes menstruation, facilitates birth, ease the male climatic and increase the libido.

Reported uses:

Used to increase the libido and aid digestion, as a remedy for flatulence, to treat indigestion and menstrual irregularities, and to increase breast milk.

Dosages and route of administration including dosage forms:

Fennel is used orally for adults as:

- Dried fruit infusion (900-1800mg/day)
- Essential oil (5-20 drops).
- Fennel compound tincture (5-7.5g daily
- Fluid extract (3-6 ml/dilution).
- Tincture(7-14 ml/day, 1:5 dilution).

Adverse reactions:

Photodermatitis,contact dermatitis, hypersensitivity reactions, hallucinations, seizuses, nausea, vomiting, anorexia, pulmonary edema.

Interactions:

Fennel affects alisorption, distribution and elimination of ciprofloxacin. If the two are used concurrently, their dosages should be separated at least 2 hours.

Contraindications:

The essential oil should not be given to infantsor small children.

Fennel should not be used by those with hypersensitivity to it, and should not be used for extended periods.

Pregnancy and lactation:

Until more research is available, fennel should not be used in pregnancy and lactation.

Special considerations:

Caution the client not to use fennel during pregnancy and lactation and not to give the essential oil to infants or small children.

Assess for hypersensitivity reactions, contact dermatitis. If these are present, discontinue use and administer antihistamine or other appropriate therapy.

Instruct the client to store fennel in a sealed container away from moisture and heat

References:

- Albert – puleo, M. Fennel and anise as estrogenic agents. J.
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- Mills, S, Bone, K. principles and practice of phytotherapy, London, Churchill Livingstone, 2000.
- Skidmore-Roth, L. Moshy's Handbook of herbs and natural supplements, St. Louis, Missouri, Elsevier Mosby, 2006.
- Zhu, M, etal. Effect of oral administration of fennel (Foeniculum vulgare) on ciprofloxacin absorption and disposition in the rot, J. pharm. Pharmacol. 51, 1391 – 1396, 1999.

Fenugreek

Synonyms:

Trigonella foenum – graecum, Bird's foot, Greek hyseed, trigonella

Biological origin and part used:

The plant is an annual that is native to Asia and South Eastern Europe. Seeds are the parts used. Family Leguminosae.

Chemical constituents:

Saponins (fenugreekine, smilagenin, diosgenin, trigogenin, gitognin, yamogenin, neogitogenin), alkaloids (gentianine, carpaine, choline, trigonelline), amino acids (lysine, hydroxyisoleucine, tryptophan, histidine, arginine), coumorins, vitamins, minerals, fibers.

pharmacology

Anticholesterolemic effect

Some clinical traials showed that fenugreek seeds caused a significant decrease in total and LDL cholesterol in patients with hypercholesterolemia.

Antidiabetic action

Clinical traials demonstrated that fenugreek seeds produced hypoglycemic effects in type II diabetics.

Other actions

Fenugreek induced ulcer protective effects and analgesic action in experimental animals.

Reported uses

Fenugreek is taken internally to treat gastrointestinal complaints, including dyspepsia, constipation, gastritis, intestinal gas, anorexia and diarrhea. It is also useful in treatment of chronic cough, bronchitis, fever, sore throat and mouth ulcers, to promote lactation and for menstrual and menopausal discomfort. Poultices and other external formulations have been used for wounds and skin irritation.

Fenugreek's most common modern indications include diabetes and hyperlipidemia.

Dosages and routes of administration including dosage forms:

Adult oral dosages for treatment of diabetes mellitus

- Defatted fenugreek powder: 50g/day
- Seeds: 1-6 g kid
- Herb: 6 g

For topical application 50 g powdered herbs dissolved in 250 ml, daily

Adverse reactions:

Rare allergic symptoms including numbness, swelling, and wheezing have been reported. Fenugreek may cause bruising, petechiae and bleeding.

Interactions:

- Fenugreek may cause reduced absorption of concurrently administered drugs.
- There is a possible increased risk of bleeding when used concurrently with anticoagulants / antiplatelets.
- Increased hypoglycemia is possible when given with oral antidiabetics.

Contraindications:

Until more research is available, fenugreek should not be used in children. Persons with hypersensitivity to fenugreek should not use it.

Special considerations:

Assess for

- Hypersensitivity reactions.
- Increased hypoglycemia in diabetics who are taking antidiabetic agents.
- Bleeding for clients who are using anticoagulants.

Instruct the client to store fenugeek products in a sealed container away from heat and moisture.

Occupational exposure to fenugreek may cause asthma, and inhalation of seed powder may cause allergic symptoms such as rhinorrhea and wheezing.

Instruct the client to report adverse reactions (bleeding, hypersensitivity, hypoglycemia) to the health care provider.

Advise the client that urine may have disagreeable order.

References

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Galanthamine

Synonyms:

Galanthus nivalis

Biological origin and part used:

Galanthine is a bulk plant found throughout the world. Family part used is the bulb.

Chemical constituents:

Alkaloids

Pharmacology:

The components are know to cross the blood brain barrier.

Galanthamine is an acetylcholinesterase inhibitor that can reverse the effects of non depolarizing muscle relaxants.

It has antiinfective action since it inhibitssalmonella and chlamydia trachomatis.

Reported uses:

Galanthamine is used widely to treat Alzheimers disease, myasthenia gravis and paralusis caused by polio.

Dosages and routes of administration including dosage forms:

Adult oral dosage is 5 mg 3 times daily which may be increased to 40 mg daily. It is used in form of tablets and ampoules.

Adverse reactions:

Nausea, Vomiting, anorexia, abdominal cramping and pain, diarrhea.

Dizziness, anxity, agitation, restlessness, insomnia.

Hypersensitivity reactions

Interactions:

Hypertensive crisis may occur when galanthamine is used with MAO inhibitors.

Contraindications:

Galanthamine should not be used by persons exposed to organophosphate compounds or those with hypersensitivity to it.

Pregnancy and lactations:

Until more research is available galanthamine should not be used during pregnancy and lactation and should not be given to children.

Special considerations:

- Assess for hypersensitivity reactions. If present, discontinue use and treat the condition.
- Assess for the use of MAO inhibitors and organophosphate compounds, neighter of which should be used concurrently with galanthamine.
- Instruct the client to store galanthamine products in a cool, dry place, away from heat and moisture.

References:

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Garlic

Synonyms:

Allium sotivum, Allium, complror of the poor, poor-man's treacle, rustic treacle, stinging rose.

Biological origin and part used:

Garlic is a perennial bulb found throughout the world.

Description:

Allium sativum (garlic) is a perennial with a globose bulb of 5-15 bulblets (cloves) encased in a papery white, or mauve-tinged skin. Flat leaves are up to 60 cm long. An ambel of green- white to pink flower, with a deciduous spathe, is born in summer.

Chemical constituents:

Volatile oils (alliin, allicin), alliinase, ajoene, terpenes (litral, geraniol, linalool), vitamins (A, B, C, E), minerals (selenium).

Pharmacology:

Glarlic possesses antimicrobial, antilipidemic, antitriglyceride, antiplatelet and cancer preventive effects. Garlic has been shown to inhibit free readcals, which may be responsible for cancer proliferation and to decrtease lipid peroxidation.

Other actions include hypoglycemic effects and protection against lead, cadmium and radiation poisoning.

Reported uses:

Galrlic has been employed to treat infections, wounds, respiratory conditions, diarrhea, rheumatism, heart disease and diabetes. Currently, it is most often used as an antitherabotic and antioxidant herb to help prevent heart disease, atherosclerosis and cancer. It is widely promoted to reduce abnormal cholesterol and blood pressure.

Dosages and routes of administration including dosage forms:

Adult oral dosages

- Chronic candidacies
- Fresh garlic: 4g daily

General use

- Extract, aged: 4g daily
- Fresh garlic: 4g daily
- Oil, perles: 10 mg daily

Hypercholesterolemia / hypertension

- 40.000 mcg daily (allicin)

- capsules / powder / tablets: 600-900 mg daily in divided doses to decrease lipids

Child oral dosages

General use

- Fresh garlic: ½-3 cloves daily
- Syrup: ½-1 teaspoonful daily
- Tea: 1 cup daily; may give up to 4 cups daily to treat colds

Interactions:

- Garlic may increase bleeding when used with anticoagulants or herbs having anticoagulant, antiplatelet properties.
- Garlic containing allicin may increase the action of cytochrome P450 3A4 thus decreasing effect of drugs metabolized by this system.
- Because of the gypoglycemic effects of garlic, insulin or oral antidiabetic dosages may need to be adjusted.
- Garlic with allicin may decrease the action of oral contraceptives

contraindication

- Hypothyroidism (garlic reduce iodine uptake)
- Persons who recently have had or are about to have surgery (risk of bleeding).
- persons with gastritis or hypersensitivity to gastric.

Pregnancy and lactation:

Because garlic may stimulate labor and cause colic in infants, it should not be used medicinally during pregnancy or lactation.

Special considerations

- Assess for hypersensitivity reactions and contact dermatitis.
- Monitor coagulation values of the client is using garlic at high doses or with anticoagulants. Identify anticoagulants and salicylates the client is using
- Instruct the client to store garlic products in a sealed container away from heat and moisture.

Adverse reactions:

Malodorous breath or body odor, dyspepsia, flatulence, anorexia, rhinitis, asthma, dermatitis and other allergic reactions can occur. Garlic may cause nausea, vomiting, dizziness, headache, irritability, and irritation of the oral cavity.

Advise the client to inform all health care providers of garlic use.

Caution the client to discontinue use of garlic before undergoing any invasive procedure in which bleeding may occure.

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Gelsemium

Synonyms:

Gelsemium sempervirens, G. nitidum, Caroline Jasmine, Yellow Jasmine, Yellow Jasmine Root.

Chemical constituents:

The active components in gelsemium are are gelsamine alkaloids and related compounds.

Pharmacology:

Gelsemium and principal alkaloid gelsemine are reputed to have CNS Depressants and analgesic effects.

Reported uses:

Orally, gelsemium is used as an analgesic for trigeminal neuragia and migraine headache.

Dosages and routes of administration including dosage forms:

Oral dose of 0.3-1 ml gelsemium tincture

Adverse reactions:

Whole plant can cause contact dermatitis when used topically. Toxicity symptoms include headache mydriasis, drooping of the eyelid, double vision, difficulty in swallowing, dizziness, muscle weakness / rigidity, shortness of breath and bradycardia. Death due to respiratory failure can occur.

Interactions:

May potentiate analgesic effect of aspirin and other analgesics.

Pregnancy and lactations:

Unsafe to be used in pregnancy and lactation

Special considerations:

Gelsemium has a very narrow safety margin, oral dose can be deadly unsafe to be given to children, the lethal dose is 500mg.

References:

Gentian

Synonyms:

Gentiana lutea, L., Gentiano acaulis, L., Bitter root, Feltwort, pale gentian, stembess gentian

Biological origin and part used:

Gentian is a flowering perennial found in Europe and Asia. Parts used are rihizome and roots.

Chemical constituents:

Gentio picrin, gentiamotin, gentiin, gentisin, gentianose, gentisic acid.

Description:

Gentians of many kinds are grown for their funnel shaped flowers, which in some species are bright blue and in others may be purple, yellow or white.

Gentiana was named after kingGentins of Illyria (c. 500 BC), who is credited with discovering the medicinal uses of G. lutea.

Pharmacology:

Ingestion of gentian stimulates the appetite and improves difestion.

Reported uses:

Gentian is used to stimulate appetite, improve diestion and treat gastrointestinal coplaints such as colitis, irritable bowel syndrome, colic, gallstone, biliary pain, peptic ulcer, and heartburn. It has also been used to treat wounds, sore throat, arthritis inflammations, and jamdice.

Dosages and routes of administration including dosage forms:

Adult oral dosages

- Fluid extract: 2-4 g daily
- Infusion: no dosage consensus
- Root: 2-4 g daily tea, place ½ teaspoonful in 4-ounce water, boil and strain, take 3 times daily before meal.
- Tincture: 1-3 g daily; 2 ml 3 times daily (1:5 dilution)

Adverse reactions:

Gastric irritation resulting in nausea and vomiting; headache, anorexia, hypersensitivity reactions.

Contraindications:

Gentian should not be used by persons with hypersensitivity to this herb, those with stomach irritability or inflammation, or those with stomach or duodenal ulcers.

Interactions:

Gentian may decrease the action of antacids; H_2- blockers and proton pump inhibitors.

It may interfere with absorption of iron salts; separate by at least 2 hours to children.

Instruct the client to store gentian products in a cool, dry place, away from heat and moisture.

Pregnancy and lactation:

Until more research is available, gentian should not be used during pregnancy.

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Geranium

Synonyms:

Geranium robertianum, G. maculatum, Cranesbill, gerb Robert, Dragon's blood, storkbill, wild cran's-bill.

Biological origin and part used:

- The plant is indigenous to the area stretching from Europe to China and Japan; to Africa southward as far as Uganda to the Atlantic seaboard of North America; and the temperate area of South America.
- The medicinal parts of the plant are the fresh or dried aerial parts collected during the flowering season, as well as the whole fresh or dried plant.

Description:

The flowers are longer than their pedicles. The sepals are erect when they first bloom and hang when the fruit matures. The petals have long stems. The fruit is circular, protruding, reticulate, glabrous or pubescent fruit matures. The stems are heavily branched; the leaves are compound leaves with petiolate, entire-margined to double-pinnasect leaflests.

Chemical constituents:

- Flavonoids: rutin, quercetin-3-o-rhamnogalactoside, kaempferol-3-o-rhamnoglucoside, hyperoside.
- Tannins: geramiin, isogeraniin, beta-penta-o-gellyol-glucose.

Pharmacology:

- Antiviral effect against vesicular stomatitis virus
- An inhibitory effect on the growth of E.coli, pseudomonas aerugonosa and staphylococcus aureus.

Reported uses:

- Treatment of functional impairment of the liver and gallbladder, inflammation of the kidney and bladder, calculosis and diarrhea.

    - Infusion or decoction is used as a mouthwash or gargle for inflammatory conditions of the oral mucous membrane.
- External application is used to treat poorly healing wounds.

Dosages and routes of administration including dosage forms:

- The herb is used internally and externally.
- Internally, it is used in form of infusion which is prepared by adding 1 dessertspoonful to ½ liter of cold water, bringing to boil and leaving to steep.
- The average adult oral dose is 2-3 cups of the infusion daily between meals.

Adverse reactions:

Health risks or side effects of the proper administration of the designated therapeutic dosages are not recorded.

Interactions:

No interactions are known to occur.

Pregnancy and lactations:

Insufficient reliable information is available; avoid using in pregnancy and lactation.

Special considerations:

The herp is characterized by an unpleasant smell of goat or drugs.

Although general reviews report the herb has hypotensive effects, no specific information is available.

References:

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Ginger

Synonyms:

Zingiber officinale Roscoe, occasionally Z. capitatum and Z. zerumbet Smith are used, black ginger, race ginger, zingiber.

Biological origin and part used:

Ginger is found in the tropics of Asia and is now cultivated in the tropics of South America, China, India, Africa, the Caribbean and parts of the united States. Rhizome is the part used. Family Zingiberaceae.

Chemical constituents:

Gingerol, zingerone, shogoal, bisabolene, zingiberene, zingiberol.

Pharmacology:

- Antiemetic and antinausea actions
- Anti-inflammatory action
- Improved digestive function since it increase amylase and salivary production.
- Antiulcer effects due to gingerol and gingesulphonic acid.
- Antiplatelet action as a result of the inhibition of thromboxane formation
- Antiinfective action against both gram-positive and gram-negative bacteria
- Antioxidant action due to gingerol and zingerone which inhibit lipoxygenase and eliminate superoxide and hydroxyl radicals.
- Hypoglycemic effect
- Positive inotropic action and rise in blood prssure.
- Its metabolites are known to be eliminated via urinary excretion within 24 hours, and it is 90% bound to plasma proteins.

Dosages and routes of administration including dosage forms:

Ginger may be standardized to its volatile oil (4%) or essential oil (8%).
Adult oral dosages are given as follows:

General use

- Dried root equivalent: 500-1000mg twice or 4 times daily.
- Fluid extract:0.7-2 ml / day (1:2 dilution).
- Fresh root equivalent 500-1000 mg 3 times daily.
- Tablets / capsules: 500 mg twice to 4 times daily.
- Tincture: 1.7-5 ml / day (1:5 dilution)

Migraine

Died ginger: 500mg 4 times daily.
Extract: 100-200 mg, standardized to 2% ginerol and shogol
Powder: 1-2 g 1/2 –1 h before traveling or upon arising
Tea, dried root:11/2 teaspoonful ground dried root in 1 cup water, boil 5-10 min, drink as necessary.
Tea, fresh root: 1 tablespoonful fresh root in 1cup water, infuse 5min, drink as necessary.

Rheumatoid arthritis

Extract: 100-200 mg, standardized to 20% ginerol and shogol

Fresh ginger: 8-10 g / day

Sore throat

Fresh root tea: 1 tablespoonful fresh in 1 cup water, infuse 5 min, gargle as necessary.

Child oral dosage

General use

Ginger root tea: ¼-1 cup as necessary

Tincture: 5-25 drops in water as necessary.

Reported uses:

Ginger root is widely used as a digestive aid for mild dyspepsia and to treat or prevent nausea, motion and morning sickness; to relive sore throat; and to treat migraine headaches. Known since ancient times, ginger has also been used for arthritis, colic, diarrhea, heart disease and as a general "worming" herb.

Adverse reactions:

Rare heartburn, nausea, vomiting, anorexia, hypersensitivity reactions.

Contraindications:

Ginger should not be used by persons with hypersensitivity to it. Unless directed by a physician, ginger should not be used by persons with cholelithiasis.

Interactions:

- Ginger may increase absorption of medications taken orally.
- It may decrease the action of antacids, H_2 – blockers, and proton pump inhibitors.
- It may increase the risk of bleeding when used concurrently with anticoagulants or antiplatelets.
- It may decrease the action of antidiabets agents.
- It may decrease the action of antihypertensives.
- Ginger may increase plasma partial prothrombin time.

Pregnancy and lactations:

Because it is an abortificient in large amounts. Ginger should not be used during pregnancy and lactation.

Special considerations:

Assess for hypersensitivity reactions; if present discontinue use and give appropriate therapy.

Instruct the client to store ginger products in a cool, dry place away from heat and moisture.

Because doses greater than 4 g / day may affect platelet function, it would be prudent to recommend lower doses for patients who are taking anticoagulant drugs or are otherwise at high bleeding risk.

References:

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Ginko

Synonyms:

Gikgo biloba, Maidehair tree, rokan, sophium, Tankan.

Biological origin and part used:

Ginkgo is a tree native to China and Japan. It is now also found in the USA and Europe. Parts of the plant used are leaves. Family Ginkgozceae

Chemical constituents:

.Gincogo contains flavinoids (kaempferol, quercetin, isorhamnetin, myricitin), diterpenes (ginkogolides), sesquiterpenes (bilobatide), triterpenes (sterols, benzoic, ginkogolic), ginkgetin.

Pharmacology:

Less than 30% of metabolites are excreted in urine bioavailability is unaffected by food.

Gincogo improves cerebral and peripheral blood flow in animal and human experiments. The flavinoid components have antioxidant activity that can also prevent cellular damage. One or both of these effects result in protection against neuronal, myocardial and retinal damage. Ginkogo has cognitive enhancement action and the pharmacological effects involve increased release of neurotransmitters including catecholamines and inhibition of MAO.

The vasoprotective and tissue – protective actions result from several factors: the ability to relax blood vessels, to protect against capillary permedility to inhibit platelet aggregation and to decrease ischemia and edema.

Ginkgo can relieve altitude sickness and arthritis and cause analgesia

Reported uses:

- To decrease disturbances of cerelnal functioning and peripheral vascular insufficiency in persons with Alzheimer's disease or other type of age – related dementia.
- To improve prepheral artery disease and to enhance cirulation throughout the body.
- Teatment of deprssive mood disorders, sexual dysfunction, asthma, glaucoma, menopausal symptoms, multiple sclerosis, headaches, tinnitus, dizziness, arthritis, altitude sickness and intermittet claudication.

Dosages and routes of administration including dosage forms:

Ginkgo may be standardized to 24% flavonglycosides and 6% terpene trilactones.

Adult oral dosages are given as follows:

Alzheimer's disease

Capsules / extract / tablets: 80mg three times daily

Asthma and cerelural vascular insufficiency

Extract: 80 mg three times daily

General uses:

standardized extract 40mg 3 time daily

Glancema:

Extract: 40-80mg 3 times daily

Impotence form arterial insufficiency

Extract: 80 mg three times daily

Menopause:

Extract: 40-80mg 3 times daily

Multiple sclerosis:
Extract: 40-80mg 3 times daily

Adverse reactions:

Ginkogo may cause transient headache, anxiety, restlessness, nausea, vomiting, anorexia, diarrhea, flatulence, hypersensitivity reactions, rash.

Interactions:

- Increased risk of bleeding when given concurrently with anticoagulants or antiplatelet drugs.
- May decrease effect of anticonvulsant agents/
- May cause hypomania when taken with buspirone or fluoxetine.
- Ginkgo may affect drugs metabolized by cytochrome P450
- MAO ihibitor action may be increased if taken with ginkgo
- Ginkgo may cause coma if given with trazadone.

Contraindications:

It should not be given to children or persons with coagulation or platelet disorders, hemophilia, seizures or hypersensitivity reactions to the herb.

Pregnancy and lactations:

Until more research is available ginkgo should not be used during pregnancy or lactation.

Special considerations:

- Assess for hypersensitivity reactions and treat symptoms if occur
- Assess for use of anticoagulants, platelet inhibitors or MAO inhibitors.
- Inform the client that ginkgo takes 1-6 months before it becomes effective.

References:

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Ginseng

Synonyms:

Panax quinquefolius, panax ginseng, American ginseng, Asiatic ginseng, Chinese ginseng, Five fingers, Japanese ginseng, Korean ginseng, Oriental ginseng, Western ginseng

Biological origin and part used:

Ginseng is found throughout the world. Panax quinquefolius is native to North America; Panax ginseng is native to the Far East. Family Araliaceae. Ginseng root is the part of the plant used

Chemical constituents:

Algycone (ginsenosides), triterpene saponuins, sesquiterpenes, polyaceylenes (falcarinol, falcarintriol), polysaccharides, adenosine, essential oil, peptides.

Pharmacology:

The triterpene saponins are the main pharmacologic constituents. Effects include:

- Decreased fatigue, increased physical performance and improved physical function.
- Anticonvulsant action
- Cardiovascular effects (antiischemic, antiplatelet,vasodilatory)
- Hypeoglycemic effects
- Immunostimulatory action
- Anti-inflammatory effect
- Anticancer action
- Cytoprotective effects including sesistance against ischemia, toxins, oxidation and radiation

Reported uses:

- Used to boost energy, relieve stress, improve concentration and enhance physical and cognitive performance.

- It is claimed to be general restorative, tonic or adaptogen, which restores the body's balance, enhances stamia and inereases resistance to stress and disease.
- Recommended as aphrodisiac, for C.V. diseases to prevent or treat cancer

Dosages and routes of administration including dosage forms:

Standardized extracts containing 5% ginsenosides are used. Adult oral dosages are classified as follows:

General use:

- Capsules: 200-500mg extract daily.

Infusion: pour boiling water over 3 g herb, let stand 10 min., strain; may be taken 3 times daily for 3–4 weeks.

Powderd root: 1–4 g daily

Standaredized extract: 200-500 mg daily

Tincture: 1-2 ml extract daily (1:1 dilution)

- Male infertility

Crude herb (root, high quality: 1.5-2 g 3 times daily

Extract: 100-200 mg 3 times daily standardized to 5% ginsenosides.

Rheumatoid arthritis

- Crude herb: 4.5-6 g / day in divided doses
- Extract: 500mg 3 times daily

Child oral dose

Attention deficit hyperactivity disorder: 200 mg twice daily in combination with ginkgo biloba for 4 weeks.

Adverse reactions:

- Nausea, vomiting, anorexia, diarrhea
- Anxiety, restlessmess, insomnia, headache
- Hypertension, chest pain, palpitation
- Ginseng abuse syndrome
- Hypersensitivity reactions, rash.

Interactions:

- May decrease the action of anticoagults.
- May diminish the effect of immunosuppressants
- May increase hypoglycemic effects of insulin and oral antidiabetics.
- Concurrent use with MAO inhibitors may result in manic-like syndrome
- Onerstimulation may occur if taken with CNS stimulant drugs or herbs.

- Concurrent use of ephedra and ginseng may increase blood pressure and cause CNS stimulation.

Contraindications:

- Ginseng should not be used by persons with hypertension, cardiac disorders or hypersensitivity to it.
- If breast cancer or other estrogen – dependent conditions are present, ginseng should not be used.
- Avoidance is recommended in nervous, tense, hysteric, manic and schizophrenic individuals.

Pregnancy and lactations:

Until more research is available ginseng should not be used during pregnancy and lactation

Special considerations:

- Assess for hypersensitivity reactions and rash.
- Assess for ginseng abuse syndrome (insomnia, edema, hypertonia).
- Assess for the use of stimulants, anticoagulants, MAO inhibitors and antidiabetic agents for possible interactions.
- Instruct the client to store ginseng products in a cool dry place, away from heat and moisture.
- Instruct the clinet to avoid the continuous use of ginseng. The recommendation is to use it for no more than 3 continuous months, taking a break between courses.

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Glucomannan

Synonyms:

Amorphophallus konjac, Konjac, Konjac mannan

Biological origin and part used:

Glucomannan is purified from Konjac flaour by chemical processing. Family Araceae. Tubers are the plant parts used.

Chemical constituents:

Polysaccharides (mannose), glicose

Pharmacology:

- Glucomannan delays absorption of glucose from the intestine and reduces blood glucose levels.
- It reduces cholesterol levels in animals and humans.
- It acts as bulk laxative since it swells when mixed with water. Viscosity of the intestinal contents is increased and gastric empting is slowed. This may be of benefit for chronic constipation in neurologically impaired children.

Reported uses:

Glucomannan is useful as a bulk laxative.

Dosages and routes of administration including dosage forms:

- Adult oral dosages are classified as follows:
- Diabetes mellitus
- Capsules / tablets: up to 7.2 g daily, treatment of longer than 3 monthes may be required.
- Lipid lowering
- Capsules / tablets: no consensus on dosage. Total cholesterol was reduced by 10% among subjects given a daily dose of 3.9 g glucomannan for a 4 - week period.
- Weight loss
- Capsules / tablets: 1 g 3 times daily before meals.

Adverse reactions:

- Nausea, vomiting, anorexia, diarrhea, flatulence, cramping, dyspepsia, gastrointestinal obstruction or perforation.

- Hyperglycemia
- Hypersensitivity reactions

Interactions:

- Glucomannan may decrease the absorption of medications if taken cocurrently; separate dosages by at least 2 hours.
- It may increase the actions of antilipidemics, insulin and oral antidiabetic agents.

Contraindications:

Persons with hypersensitivity to glucomannan should not use it.

Pregnancy and lactations:

Until more research is available glucomannan should not be used during pregnancy and lactation.

Special considerations:

- Assess for hypersensitivity reactions and for use of medications
- Instruct the client to store glucomannan products in a cool, dry place, away from heat and moisture
- Caution the client that gastrointestinal obstruction and perforation have occurred in some persons using glucomannan.

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Glucosamine

Synonyms:

2-amino-2- deoxyglucose, Chitosamine, Gs.

Biological origin and part used:

Glucosamine is found in mucopolysaccharides, chitin and mucoproteins. Glucosamine is a naturally occurring substance, glucosamine sulfate is manufactured synthetically.

Pharmacology:

- Glucosamine is 90% absorbed, but undergoes a significant hepatic first – pass effect
- Glucosamine is required for synthesis of certain proteins needed for tendons, ligaments and cartilage. The primary action of glucosamine is to protect against and prevent osteoartheritis

Reported uses:

Glucosamine is used in conjunction with chondroitin to treat joint conditions such as those associated with arthritis.

Dosages and routes of administration including dosage forms:

- Adult oral dosages are classified as follows:
- General use
- Capsules / tablets: 1500 mg glucosamine and 1200 mg chondroitin for average – weight individuals; lower doses for underweight individuals; higher doses for overweight persons.
- Osteoartheritis
- Capsules / tablets: 1500 mg / day.

Adverse reactions:

- Nauea, vomiting, anorexia, costipation or diarrhea, heartburn, epigastric pain and cramps, indigestion.
- Drowsiness, headache
- Hypersensitivity reations, rash (rare).

Interactions:

- Glucosamine and chondroitin at high levels can lead to bleeding risk.
- Glucosamine may increase the effects of antidiabetic agents.
- It should not be given to children and persons with hypersensitivity to it.

Pregnancy and lactations:

Until more research is available glucosamine should not be used during pregnancy and lactation.

Special considerations:

- Assess for hypersensitivity reactions

- Monitor blood glucose in diabetic patients.
- Instruct the client to store glucosamine products in a cool, dry place, away from heat and moisture,
- Instruct the client to take glucosamine orally with food to reduce gastric upset.
- Inform the diabetic client that glucosamine may lower blood glucose levels.

References:

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Goldenseal

Synonyms:

Hydrastis Canadensis Eye balm, eye root, gram raspberry, indenian turmeric, orange root, turmeric root, wild curcuma.

Biological origin and part used:

Goldenseal is a perennial originally found in Ohio River Vally and now cultivated. The plant part used is air=-dried rhizome.

Chemical constituents:

Alkaloids (berberine, hydrastine, canadine, canadaline, beta-hydrastine), resins, phytosterin, chlorogenic acid.

Pharmacology:

Most of the scientific explanation for goldenseals use have been attributed to the effects of berberine and related alkaloids. Berberine is very poorly absorbed orally (probably < 1%), although blood levels are measurable after large doses.

Extracts of the crude herb, and berberine in particular, have broad in-vitro antimicrobial activity against gram-positive and gram-negative bacteria, fungi, and protozoa and other parasites.

Immunologic activity such as enhanced macrophage, cytokine and antibody response have been demonstrated in rodent and in-vitro studies. High doses of oral berberine reduced the colonic inflammation of drug-induced colitis in rats.

Very large IV doses of berberine to patients with severe congestive heart failure caused significant hemodynamic changes consistent with decreased vascular sesitance and increased cardiac out put.

Reported uses:

Most common uses of goldenseal include the treatment of gastritis, gastrointestinal uluration, peptic ulcer disease, mouth ulcer, bladder infection, sore throat, and postpartum hemorrhage. It may be also used to treat skin disorders such as pruritus, boils, hemorrhoids, oral fissures and eczema as well as cancer and tuerculosis. It may also be used to promote wound healing and reduce inflammation.

It is used in combination with Echinacea to treat cold and flu at onset.

In tonic form, it has been ingested as a “bitter to aid digestion and treat dyspepsia.”

Dosages and routes of administration including dosage forms:

Dosages should be standardized to berberine content.

Adult oral dosages are classified as follows:

Bladder infection

Died root / tea: 1-2 g 3 times daily

Tincture: 4-6 ml 3 times daily (1:5 dilution)

Fluidextract: 0.5-2 ml 3 times daily

Powerded solid extract: 250-500 mg 3 times daily

Boils

- Topical poultice: one tablespoonful mixed with water or egg white to make a paste, apply to area, cover with adsorbent material, use 2 times daily.

Adverse reactions:

Hypersensitivity reactions, rash, contact dermatitis, phototoxicity (topical), hallucinations, CNS depression, paresthesia, seizures, nausea, vomiting, anorexia, dirrhea or constipation, abdominal cramping, mouth ulsers.

Interactions:

- It may increase the effects of alcohol, antiarrhythmics, antihypertensives, β-blockers and CNS depressants.

- It may decrease the effects of anticoagulants
- It may slow the metabolism of azole antofungals and benzoiazepines, statins, calcium channel blockers.

Contraindications:

Goldenseal should not be used by persons who have heart block, arrhythmias, or hypertension or by those who are hypersensitive to it.

Pregnancy and lactations:

Because goldenseal is a uterine stimulant, it should not be used during pregnancy and lactation until more research is available.

Special considerations:

- Assess for hypersensitivity reactions, if present discontinue use and give antihistamine or other appropriate therapy.
- Instruct the client to store goldenseal products in a cool, dry place, away from heat and moisture.
- Advise the client to avoid the sun or wear protective clothing when using goldenseal topically.

References:

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- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, Elsevier Mosby, St. Louis, Missouri, 2006.

Gossypol

Synonyms:

Gossypium hirsutum, common cotton, cotton, wild cotton

Biological origin and part used:

Gossypol is found in cotton and is made synthetically. Family parts used include roots, seeds, stems.

Chemical constituents:

Enantiomers

Pharmacology:

Gossypol possesses male and female contraceptive properties. As a male contraceptive, gossypol decreases sperm production which returns to normal 90 days after termination of therapy. No changes in libido or hormone levels occurs.

Reported uses:

Gossypol is used as a male contraceptive, as a vaginal spermicide, to induce labor and delivery and to treat dysmenorrhea. It is also used foruterine filoriods, endometriosis, and dysfunctional uterine bleeding

Dosages and routes of administration including dosage forms:

As a male contraceptive, gossypol extract is given orally at a dose of 20 mg daily for 2-3 months until sperm count drops to < 4 million sperms / ml, then 75-100 mg every 2 weeks for maintenance.

Adverse reactions:

Nausea, vomiting, anorexia, diarrhea, hypersensitivity reactions, muscle fatigue, weakness, paralysis, circulatory collapse, heart failure, male sterility (on prolonged use).

Interactions:

- May cause replirotoxicity when given with antifungals.
- May cause hypokalemia when used with diuretics such as furosemide and hydrochlarathiazide.
- May result in gastrointestinal distress and Gitissue damage when given with NSAIDs.

Contraindications:

Pregnancy, lactation, hypersensitivity to gossypol, hepatic or renal damage.

Pregnancy and lactations:

Because it can induce labor, gossypol should not be used during pregnancy. Until more research is available lactation.

Special considerations:

- Assess for hypersensitivity reactions and treat symptoms if occur.
- Instruct the client to store gossypol products in a cool, dry place, away from heat and moisture.

- Warn the client of the life-threatening cardiovascular side effects of gossypol.

References:

- Change, M.C. effects of gossypol on the fertility of male rats, hamsters and rabbits. Contraception, 21, 461-469, 1980.
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Grape seed

Synonyms:

Vitis viniferal and V. coignetiae, Gape seed, muskat.

Biological origin and part used:

Grape seed is found throughout the world family Vitaceae. The parts used are seeds seed oil.

Chemical constituents:

The seed contains flavinoids (kaempferol, quercetin), tannins (proanthcyaniins), tocopherol, and fatty acids.

Pharmacology:

- Procyanidins in the seed scavenge reactive oxygen species involved in the onset and maintenance of microvascular injury.
- The seed can aid in prevention of denal caries.
- Effective against visual stress and in improving night vision.

Reported uses:

- The see may be used as an antioxidant and anticancer treatment; to treat varicose veins and circulators problem; and to treat vision problems such as cataracts and improve vision by lessening eyestrain.
- Inhibitor of tooth decay.

Dosages and routes of administration including dosage forms:

Dosages are standardized to 85-95% procyanidins.

Supplement oral dosage: capsules / tablet 50 –100 mg daily.

Therapeutic oral dosage: capsules / tablet 150-300 mg daily for 21 days, then 50-80 mg daily maintenance dosages.

Adverse reactions:

Nausea, anorexia, dizziness, rash.

Interactions:

Grape seed given with anticoagulants or antiplatelets may increase the risk of bleeding.

Contraindications:

Until more research is available grape seed should not be used during pregnancy and lactation, and should not be given to children.

Pregnancy and lactations:

Until more research is available grape seed should not be used during pregnancy and lactation.

Special considerations:

If the client is using the grape seed to improve cardiovascular disorders, assess cardiovascular status: edema in legs, improvement in atherosclosis, and improvement in varicose veins. Monitor blood pressure and pulse.

Assess for hepatotoxcicity.

Instruct the client to store gossypol products in a cool, dry place, away from heat and moisture.

References:

- Griffith, H.W. Healing herbs: the essential guide, Fisher Books, Tucson, Arizona, 2000.
- Jellin, J.M. etal. Natural medicines comprehensive database, Stockton, Calif, 2004, therapeutic research Faculty.
- Mc Caleb, R. etal. The encyclopedia of popular herbs: your complete guide to leading medicinal plants, Roseville, Calif., 2000, Prima Health.
- Oshima, Y. etal. Powerful hepatoprotective and hepatotoxic plant oilgastillenes, isolated from the Oriental medicinal plant Vitis coignetiae (Vitaceae), Experientia 51, 63-66, 1995.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elseveir Mosby, t. Louis, Missouri, 2006.

Green tea

Synonyms:

Camellia sinensis L. Kuntze, tea, green tea, Matsu-cha

Biological origin and part used:

Green tea is a shrub found in Asia. The most important species commercialyy is C. sinensis (tea), native to China, which is cultivated on a vast scale, and has over 350 cultivars. It was introduced to Europe in the 17th century. Many species are grown as ornamentals for their handsome, glossy foliage and fine flowers. Family theaceae.

Plant part used is dried leaves.

Description:

Small, variable, evergreen shrub with leathery ellipitic leaves. White flowers, with a boss of yellow stamens are born in the axils during wintrer following by capsules containing large oily seeds. Both green and black teas are made from the same plant, but more of the original substances endure in the less-processed green form. Green tea contains high levels of polyphenols (strong antioxidants).

Chemical constituents:

- Tannins
- Flavonoids: epigallacatechin gallate, catechin, epicatechin gallate, proanthocynidins.
- Xanthins: caffeine, theobromine, theophylline.
- Others: lignin, organic acids, proteins, vitamins.

Pharmacology:

Black tea is produced by allowing the leaves to oxidize while green tea is cut and steamed. The major actions of green tea result from its antioxidant, anticancer (protective, effects against cancers of stomach, intestine, colon, rectum and pancreas), and antipidemic actions.

Reported uses:

Green tea has become popular as a daily drink for cancer prevention. It is also used as a general antioxidant, diuretic, stimulant, antibacterial, antilipidemic and antiatheroslerotic.

Dosages and routes of administration including dosage forms:

Green tea is standardized to 60% polyphenols.

Adult oral dosages:

Extract 250-400 mg daily of standardized to 90% polyphenols.

Tea: one teaspoonful leaves in 8 oz hot water, drink 2-5 cups / day.

Adverse reactions:

Hypersensitivity reactions in some persons. High doses may cause anxiety, nervousness, insomnia, hypertension, palpitation, irregular heart beat, nausea, heartburn, increased stomach acid.

Interactions:

Large amounts of green tea increase the action of some bronchodilators.
Green tae can increase inotropic effects of betra adrenergic blockers
Used in large amounts with MAOIs can lead to hypertensive crisis.
Largew amounts of green tea increase the action of xanthines.

Contraindications:

Persons with hypersensitivity to green tea.
Patients with kidney inflammation, peptic ulcer, insomnia, cardiovascular disease, or increased intraocular pressure.

Pregnancy and lactations:

The FDA has advised that women who are or may become pregnant should avoid caffeine containing products.
High consumption during lactation may cause insomnia and nervousness to the breast-fed baby.

Special considerations:

Assess for hypersensitivity reactions and other conditions that are contraindications to green tea.
Instruct the client to store green tea in a cool, dry place, protected from heat and moisture.
The daily consumption of 250 ml of tea by infants has been shown to impair iron metabolism resulting in a high incidence of microcyctic anemia.

References:

- Bown, D. Encylocpedia of herbs and their uses, DK Publishing Inc., New Yourk, London, Stattgrat, Moscow, 1995.
- Bratman, S. and Kroll, D. (editors) National health bible, Prima Health, U.S.A., 1999.
- Der Marderosian, A. Guide to popular natural products, Facts and Comparisons, St. Louis, Missouri, 1999.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elseveir Mosby, St. Louis, Missouri, 2006.

Guaiacum

Synonyms:

Guaiac, guaiac heartwood, Guaiajaci lignum, tigum vitae, pockwood, Guaicum officinale, Guaicum sanctum.

Biological origin and part used:

Six species of evergreen shrubs and trees make up this genus, which occurs in the W Indies and warm parts of Americas. G. officinale, native to dry

coastal areas of southern C America and the Caribbean, is the national flower of Jamaica.

Guaicum is form the Spanish quayaco which means “wood of life”. Parts used are resin and wood.

Description:

Small tree with divided pinnate leaves. Prefuse clisters of dep blue flowers are followed by orange-yellow capsules for much of the year.

Chemical constituents:

- Triterpene saponins: aglycone oleanolic acid
- Resins: e.g. guaiacin.
- Volatile oils: contains sesquiterpene alcohols e.g. guaiole.

Pharmacology:

Guaiac wood can have antirheumatic, anti-inflammatory, diuretic, mild laxative, diaphoretic and fungistatic activity.

Reported uses:

Orally for subacute and chronic rheumatism, chronic reheumatoid arthritis, and preventing gout.

Used topically as a bacteriostatic in mouthwashes.

Dosages and routes of administration including dosage forms:

The typical dose of guaiac wood is one cup of the tea 3 times daily. The tea is prepared by simmering 1.5 g of the wood or resin in 150 mh boiling water for 5-10 min. and then straining. The usual dose of the liquid extract (1:1 in 80% alchohol) is 1-2 ml. The common use of the tincture is 1-4 ml.

Adverse reactions:

When taken orally, guaiac wood can cause skin rashes. High doses can cause diarrhea, gastroenteritis, or intestinal colic.

Interactions:

No interactions are known to occur.

Contraindications:

Contraindicated in acute inflammatory conditions and individual allergic or hypersensitive to the product

Pregnancy and lactations:

Insufficient reliable information is available, avoid usin.

Special considerations:

- There is insufficient available information about the safety of the topical use of guaiac wood.
- It is possibly safe when cosumed in amounts commonly found in foods.

- In folk medicine, guaiac wood has been used for respiratory complaints, skin disorders and syphilis.
- As a flavaring agent, it is used in foods and in edible oils and fats.

References:

- Bown, D. Encycolpedia of herbs and therapeutic uses, Dorling hindersley, New York, London, Stattgart, Moscow, 1995.
- Fleming, T. (editor), PDR for herbal medicines, Medical Economic company, Mintvale New Jersy, 2000.
- Jellin, J.M. etal. Natural medicines comprehensive database, third edition, Stockton, CA, therapeutic research Faculty,2000.

Guarana

Synonyms:

Paulina cupana kunth var. sarbilis (Mart.) Ducke or P.sorbilis (L.)mart., Brazilian cocoa, guarana gum, guarana paste, Zoom.

Biological origin and part used:

Guarana is a pasre made from seeds of a shrub found in the Amazon and Brazil. Seeds of P. cupana are used by the Guaranis of Brazilian Amazonia to make a stimulant drink. Family Sapindaceae.

Palnt part used is the seeds.

Description:

Guarana is the dried paste made from the crushed seeds of P. cupana or P. sorbilis. A fast-growing woody perennial shrub bears orange-yellow fruit that contains up to 3 seeds each. The seeds are collected and dry-roasted over fires. The kernels are ground to a paste with cassava, molded into cylindrical sticks and then sun-dried.

Chemical constituents:

Tannins: catechutannic acid, tannic acid, catechol, catechin

Saponins: timbonine.

Xanthines: caffeine.

Seeds of P. cupana contain up to 7% of caffeine-like compound known as “guaranine”. Unlike caffeine, it is not addictive and takees longer to be metabolized, giving it a gentler, more sustained stimulant effect.

Pharmacology:

- Caffeine crosses the placenta and enters breast milk.
- Antioxidant effect.
- Stimulant / weight loss action

Reported uses:

    - Used traditionally as stimulant and typically is used in combination with other products (e.g. ephedra).
- To relive fatigue, aid concentration, and lift the spirits.
- Added to diet foods, supplements for athletes, tonic drinks.

Dosages and routes of administration including dosage forms:

Dosages vary widely depending on the form used.
Adult oral dose should not exceed 3 g / day.
Guarana is available in form of capsules, elixir, extract, tablets, tea, components in various supplements, drinks, flavorings, weight-loss products and gum.

Adverse reactions:

Nausea, vomiting, anorexia, diarrhea, hypersensitivity reactions, headache, anxiety, nervousness, restlessness, insomnia, tremors, seizures, hypertension, palpitations, tachycardia, arrhythmias.

Interactions:

- May decrease the adenosine response and effects of antihypertensive agents.
- May increase the action of bronchodilators.
- Taken in large amounts with MAOIs, it can cause hypertensive crisis.
- Given with xanthines, it may increase pulse rate, blood pressure, and arrhythmias.

Contraindications:

Guarana should not be used by persons with cardiovascular diseases such as hypertension, arrhythmias, or heart block, or by persons with duodenal ulcers, diabetes, renal disease or hypersensitivity to this product.

Pregnancy and lactations:

Guarana should not be used during pregnancy and lactation.

Special considerations:

- Assess for hypersensitivity reactions and for use of medications and ephedra (possible interactions).
- Instruct the client to store guarana products in a cool, dry place, protected from heat and moisture.
- Gaurana products should not be given to children.
- Warn the client of the life-threatening side effects of guarana.
- Advise client that insomnia may occur; take at least 6 hr before bedtime.

References:

- Andersen, T. etal. Weight loss and delayed gastric empting following, South American herbal preparation in overweight patients, J. Hum. Nutr. Diet, 14, 243-250, 2001.
- Bown, D. Encycolpedia of herbs and their uses, Dk Publishing Inc., New York, London, Stattgart, Moscow, 1995.
- Bratman, S. and Kroll, D. (editors), Natural health bible, Prima Health, U.S.A.
- Der Marderosian, A. Guide to popular natural Products, Facts and Comparisons, St. Louis, Missouri, 1999.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elsevier Mosby, St.Louis, Missouri, 2006.

Gum acacia

Synonyms:

Acacia, arabica, acacia bark, Babul bark, Wattle nark, Indian gum, Acacia vera, Acacia Senegal, gum Arabic

Biological origin and part used:

- The plant is indigenous to the Nile area, Ethiopia, East Africa, Angula, Mozambique, South Africa, Arabia, Iran, Afghanistan and India.
- The medicinal parts are the bark, the gum and the fruit of the plant. Family Leguminosae.

Description:

The fruit has a pod which is straight or lightly curved, flat to convex, and pinched in to create segments. It is matte-black to dark-red.

Acacic arabica is a tree with compact, round to flat crown. The bark is black and fissured; the coloring in the fissure changes to red-brown. The bark is collected from plants that are at least 7 years old and then left to mature for a year.

The gum swells and soothes membranes when it comes into contact with water.

Chemical constituents:

It contains tannins.

Pharmacology:

The gum has an astringent effect. It soothes mucous membrane surfaces; irritated throat and bronchial passages are relieved by sucking the gum.

Applied in a mucilaginous state, it soothes burns and scapes, as well as the sore nipples of nursing mothers.

Reported uses:

- As a decotion, it is used in the treatment of diarrheo and vaginal secretion.
- As an enema, it is used for hemorrhoids.
- In lozenges, it relives sore throat.
- Applied externally in a mucilaginous state, it has been used to soothe burns and scrapes, as well as the sore nipples for nursing mothers.

Dosages and routes of administration including dosage forms:

The gum is given either in powder or dissolved in alurond milk or similar flavored leverages:1/2 ounce of the gum to a pint of liquid.
It may be used in form of mucilage or lazenge.

Adverse reactions:

Large doses taken internally can lead to indigestion and constipation, skin lesions, asthma.

Interactions:

- The fiber in the gum can impair absorption of orally administered drugs
- If mixed with certain alkaloids, e.g. atropine, morphine, scopolamine, it causes partial destruction of the drug.

Contraindications:

Persons hypersensitive to acocia.

Pregnancy and lactations:

Acacia is likely safe in pregnancy and lactation.

Special considerations:

Assess for hypersensitivity reactions, if occur treat with an antihistamine or other appropriate drugs.

Avoid confusion with sweat acacia.

References:

- Fleming, T.(editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.
- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
- Trease, G.E., Evans, W.C. (editors), Pharmacognosy, 12th edition, Bailliere, Tindal, 1983.
- Weiner, M.A., Weiner, J.A. Herbs that heal: prescription for herbal healing, quantum, books, Mill Valley, CA, 1994.

Gymnema

Synonyms:

Gymnema sylvestre, gurmar, Meshashringi, merasingi

Biological origin and part used:

Gymnema is India and Africa

The plant part used is the leaves.

Description:

Chemical constituents:

Gymnemic acid, triterpene glycosides (logispinogenin)

Pharmacology:

- Antidiabetic action which may be due to its ability to stimulate pancreatic β-cells to release insuline.
- Lipid-lowering action

Reported uses:

Gymnema has been used traditionally in Ayurvedic medicine to treat diabetes mellitus and malaria, and as a laxative.

Dosages and routes of administration including dosage forms:

Extract is given orally at doses of 400-600 mg daily standardization to contain 24% gymnemic acid.

Adverse reactions:

Nausea, vomiting, anorexia, inhibition of bitter / sweet tase, hyper sensitivity reactions.

Interactions:

Gymnema may increase the action of insulin and oral antidiabetic agents.

Contraindications:

It should not be given to persons with hypersensitivity to it and children.

Pregnancy and lactations:

Until more research is available, gymnema should not be used during pregnancy and lactation.

Special considerations:

- Assess for hypersensitivity reactions and for use of insulin and oral antidiabetic agents.

Instruct the client to store gymnema in a cool, dry place, protected from heat and moisture.

- Diabetes is a dangerous illness, thus gymnema should only be used under medical supervision.

Under no circumstances should you try to replau insulin with gymnema alone.

References:

- Baskaran, K. etal. Antidiabetic effect of a leaf extract from Gymnema sylvestre in non-insulin – dependent siabetes mellitus patient. J. ethnopharmacol. 30, 295-305, 1990
- Bratman, S. and Kroll, D. (editors) National health bible, Prima Health, U.S.A., 1999.
- Lininger, S. etal. The natural pharmacy, Rocklin, CA, Prima publishing, 276, 1998.
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Hamamelis

Synonyms:

Hamamalis Virginia, witch hazel, winter bloom, tolsacco, wood, hamamelis water.

Biological origin and part used:

The plant is found throughout most of North America, Europe and eastern Asia; H. Virginia is found in moist woods in the plant parts used are barks and leaves

Description:

Witch hazael grows as a deciduous bush. Shrub or small tree with obovate leaves, that turns yellow in autumn. Clusters of flowers with crinkled linear, yellow petals, appear in autumn as the leaves fall, followed by dehiscent fruits

Chemical constituents:

- Flavonoids: quercentin, kaempferol.
- Volatile oil: engenol, safrole
- Other: tannin, calcium oxalate, resin, gallic acid

Pharmacology:

- Acts against inflammation of skin and mucous membranes of mouth, throat and gums
- It has astringent and hemostatic properties.
- Antiviral action against herpes simplex virus type 1.

- Antioxidant and antiaging properties

Reported uses:

- To promote healing in hemorrhoid treatment and treatment of diarrhea, dysentery and colitis and skin inflammations e.g. eczema.
- In form of gargle to treat inflammation of mouth throat and gums
- Treatment of damaged veins, bruises and sporains
- Useful as an enema to stop bleeding
- Treatment of vaginal and anal itching.

Dosages and routes of administration including dosage forms:

- Fluid extract: orally 2-4 ml 3 times daily (1:1 dilution in 45% alcohol)
- Dried leaf gargle: 2 g 3 times daily
- Topical with hazel water: applied to affexted area 3-4 time daily when required

Adverse reactions:

- Nausea, vomiting, anorexia, constipation, hepatotoxicity, hypersensitivity reactions, contact dermatitis.

Interactions:

Leaf or bark tea may decrease absorption of iron salts, separate by 2 hours

Contraindications:

- Not recommended for internal use
- Persons with hypersensitivity to the herb should not use it.

Pregnancy and lactations:

Until more research is available, it should not be used during pregnancy and lactation.

Special considerations:

- Assess for hypertensitivity reactions.
- Assess for hepatic functon, if changing discontinue use
- Advice the client to use this herb topically or as a gargle only, it should not be taken internally
- Instruct the client to store which huzel products in a sealed container away from heat and moistue.

References:

- Brown, D. Encycolpedia of herbs and their uses, Dk Publishing Inc., New York, London, Stattgart, Moscow, 1995.
- Der Marderosian, A. Guide to popular natural Products, Facts and Comparisons, St. Louis, Missouri, 1999.

- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elsevier Mosby, St.Louis, Missouri, 2006.
- Erdelmeier, C.A. etal. Antiviral and antiphlogistic activities of Hamamelia virgiana bark, planta Med. 60, 241-245, 1996
- Masaki H. etal. Active-oxygen seavenging activity of plants extracts, Biol. Pharm. Bull. 18,162-166, 1995.
- Hughes-formella, B.J etal, Anti-inflammatory effect Dermatology, 196, 316-322, 1998.

Henbane

Synonyms:

Hyoscyamus niger, devil's eye, fetid nigbtshade, henbell, hog bean, Hyoscami folium, jupiter's bean, poison tobacco, stinking nightshade.

Biological origin and part used:

There are 15 species of annuals, biennials, and perennials in this genus, which is distributed through Western Europe, northn Africa, and central and southwestern Asia. H. Niger is found in base sandy soil, near the sea. Some henbanes are occasionally seen in herb gardens. Hyoscyamus is from the Greek "hys" which means pig, and " kyamos" which means bean, perhaps because pigs can eat henbone without being poisoned. The medicinal parts are the dried leaves or the dried leaves with the flowering branches, the dried seeds, and the whole fresh flowering plant. Family solanaceae.

Description:

The plant has pale green, ovate leaves, which are hairy and sticky. Purple-veined, cream flowers appear from spring to automn followed by capsules.

Chemical constituents:

Henbane leaf and seed contain:

- Tropane alkaloids (0.05-0.3%): chief alkaloid (-) hyoscyamine, under storage conditions changing over to some extent into atropine and scopolamine.
- Flavonoids: including, among others, rutin in the leaf
- Fatty oil: in the seed.

Pharmacology:

Henbane preparations exert peripheral actions on the autonomic nervous system and on smooth muscle as well as the CNS. Because of their anticholinergic properties, they causerelaxation of organs containing smooth

muscle, particularly in the region of gastrointestinal tract. Furthermore, they relief muscular tremors of central nervous origin.

Henbane preparations have a sedative effect

Reported uses:

Orally, henbane leaf is used for spasms of the GIT. Inflok medicine, henbane is used for toothache and facial pain, painful ulcers and tumors, stomach cramps and lower abdomen pain.

Externally henbane oil is used for the treatment of scar tissue.

Dosages and routes of administration including dosage forms:

- The average single oral dose of the standardized henbane power is 500 mg, which corresponds to 250-350 mg of the total alkaloid. The maximum single dose of henbane is 1 g (500-700 mg of the total alkaloid).

  The maximum daily dose is 3 g (1.5-2.1 g of the total alkaloid calculations.

Adverse reactions:

Dry mouth, red skin, costipation, overheating, reduced sweating, vision disturbances, tachycardiac arrhythmia, difficulty with urination, mydriasis, and accommodation disorders.

Interactions:

Enhancement of anticholinergic actions of tricyclic antidepressants, amantadine, antihistamines, phenothiazines, procoinamide, quinidine, atropine hyoscamin, and scopolamine

Contraindications:

Congestive heart failure, constipation, down's syndrome, esophageal reflux, fever, gastric ulcer, GI infections, toxic megacolon, narrow-angle glaucoma, obstructive GIT disease, tachyarrhythmias, urinary retention, ulcerative colitis, acute pulmonary edema, and prostatic adenoma.

Pregnancy and lactations:

Pregnancy category c. use caution in nursing mothers

Special considerations:

- Avoid hot invironments, heat stroke may occur.
- Use sunglasses when outside to prevent photophobia.
- Keep protected from light, moisture and heat in tightly sealed containers

References:

- Bown, D. Encycolpedia of herbs and their uses, Dk Publishing Inc., New York, London, Stattgart, Moscow, 1995.

- Ellsworth, A. J. etal. Mosby's Medical Drug Reference, Elsevier mosby, St. Louis, Missouri, 2005.
- Fleming, T. (editor), PDR for herbal medicines, Medical Economics company, montvale New Jersey, 2000
- Jellin, J.M.etal. Natural medicines comprehensive database, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.

Hops

Synonyms:

Humulus lupulus, european hops, common hops, lupulin, ptelea trifoliata

Biological origin and part used:

The hop plant is a perennial that is cultivated throughout the world. Ptelea trifoliata was sacred to menominee people & north America, who added its root bark to other medicines to increase their effectiveness, plant parts used are the whole hops. Family moraceae or cannabaceae

Description:

- Abilter, pungent, tonic herb

Chemical constituents:

- Acylphloroglucinol
- Volatile oil: humulene, linalool, iupulone, myrcene.
- Hormane: estradiol.
- Colupulone
- Flavonoids: xanthohumol, prenylnaringenin, isoxanthohumol.
- Others: avermectin, phenolic acid, tannin.

Pharmacology:

- Reports have suggested that hops contain compounds (phytoestrogens) that have abilily to exert direct estrogenic effects.
- Hops have sedative / hypnoric effects, which is attributed to the volatile oils present in the plant.
- The same volatile oils may be responsible for the antispasticity effect.
- The bilter acids, lupulone, lumulene, and linalool are reported to have antimicrobial activity.

Reported uses:

- Hops have been used traditionally as an analgesic, for attention deficit hyperactivity disorder, as an anthelmintic and as a sedative / hypnotic

to treat insomnia. Hops, which are related botanically to cannabis, have been smoked as a mild sedative.

- They have been used as a diuretic and for treatment & intestinal cramping, tuberculosis, cancer, cystitis, menstrual problems, menopausal symptoms and nervous conditions.

Dosages and routes of administration including dosage forms:

- Infusion is prepared by pouring 8 oz boiling water over 0.4 g (one teaspoonful) ground hops cone, standing 15 min. this amount is taken orally.
- Extract (2-4 mg) is taken orally.

Adverse reactions:

Nausea, vomiting, anorexia, sedation, dizziness, decreased reaction time and hypersensitivity reactions including dermatitis and anaphyloxis.

Interactions:

- Drugs xausing CNS depression e.g. antidepressants, antipsychotics, antihistamines, alcohol… may cause increased CNS effects of hops.
- Hops may decrease level of certain drugs e.g. carbamazepine, azole antifungals, macrolide antibiotics, omeprazole, warfarin, the ophylline…
- Hops may decrease absorption of iron salts.

Contraindications:

- Persons hypersensitive to hops.
- Persons with breast, uterine or cervical cancers.
- People suffering depressive conditions.

Pregnancy and lactations:

Until more research is available, hops should not be used during pregnancy and lactation.

Special considerations:

- Assess for hypersensitivity reactions, interactions and CNS reactions.
- Instruct the client to store hops in a coll, dry place, away from heat and moisture.
- Advise the clent not to perform hazardous tasks such as driving or operating jeavy machinery if sedation, dizziness, or decreased reaction time occurs.

References:

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Horse chestnut

Synonyms:

Aesculus hippocastanum, Aesculus calikaria, Aesculus California, Aesculus glabra, Aescin, buckeye, California buckeye, chestrut, Ohio buckeye.

Biological origin and part used:

This genus of 13 species occurs in south eastern Europe, eastern Asia an North America; A hippocastanum is found wild from the Balkans to the Himalayas. Plant parts used are seeds, young bark and leaves. Family Hippocastanaceae.

Description:

Members of the genus aesculus grow as trees and shrubs. The fruit is a capsule with a thick, leathery husk that contains from 1-6 dark seeds. As the husk dries, the nuts are releaud. The pink and white flowers of the plant grow in clusters.

Horse chestnut have handsome foliage that may edible chestnut, their resemblance to the eyes of deer gave rise to the common name of "buckeye".

Chemical constituents:

- Steroids: stigmasterol, alpha-spinasterol, beta-sitosterol.
- Triterpene glycosides: Aesin.
- Flavonoids: quercetin, kaemferol, astragalin, isoquercetin, rutin.
- Coumarins: Aesculetin, fraxin, scopolin.
- Other constituents: ablantoin, choline, phytosterol, aminoacids, citric acid, tannin, oleic acid.

Pharmacology:

- An extract of the plant (containing 50mg of triterpene glycosides) decrease venous capillary permeability.

- The bark yields aesculin, which improves vascular resistance and aids in toning vein walls. This is desrable for such ailments as hemorrhoids, varicose veins, leg ulcers, or frostbite.
- Aesculin may increase bleeding time due to antithrombin activity.
- The bark possesses anti-inflammatory activity, primarily because of the presence of the steroids stigmasterol, alph-spinasterol and beta-sitosterol.

Reported uses:

- Traditional uses include tseatment of bever, phlebitis, hemorrhoids, prostate enlargement, edema inflammation and diarrhea.
- Horse chestnut seed extract is a popular oral therapy in European countries for chronic venous insufficiency and localiged edema.
- Topical seed extract and and aescin preparations are allerged to decrease symptoms of varicose veins, superfavial thrombophlebitis, hyphatic edema, hematomas, sport injuris and other traumas
- Topically, seeds have been used for arthritis and rheumatic conditions, neuralgia, rectal complaints and other related disorders of inflammatory congestion and engrogement.

Dosages and routes of administration including dosage forms:

Adult oral dosages:

- Standardized extract: 100-150 mg daily in 2 divided doses
- Tincture: 1-2 ml in 1/2 cup water, twice or 4 times daily.

Adverse reactions:

Nausea, vomiting, anorexia, hepatotoxicity, nephrotoxicity, pruritus, hypersensitivity, rash, urticaria, muscle, spasms, bruising, severe bleeding, shock

Interactions:

- It increases the risk of severe bleeding when taken with anticoagulants e.g. heparin, warfarin.
- May increases the hypoglycemic effects of antidiabetic agents.
- Concurrent use use with aspirin and other salicylates inincreases the risk of severe bleeding.
- Horse chestrut tea may decrease the absorption of iron salts; separatee by 2 hours.

Contraindications:

- It should not be given to children
- It is contraindicated in renal and hepatic impairment and unfections or inflammatory GI conditions

Pregnancy and lactations:

Until more research is available, horse chestnut should not used during pregnancy and lactation.

Special considerations:

- Unprocessed seeds are poisonous and can cause GI and neurotoxic reactions.
- Assess for hepatotoxicity, bleeding, bruising, nephrotoxicity and allergic reaction. If occur, discontinue use.
- Assess for interactions and toxicity.
- Instruct the client to store horse chestrut in a cool, dry place, away from heat and moisture.
- Warn the client of the life- threatening symptoms of this herb; not to use older bark, it is poisonous.

References:

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Hyssop

Synonyms:

Hyssopus officinalis, hyssop, hyssop herb

Biological origin and part used:

Hypssop is a perennial found in the Mediterranean, the United States, Canada, central Asia. H. officinalir, native to central and southern Europe, western Asis and North Africa, is an excellent plant for attracting bees and butterflies. Hyssopus is the name used means holy herb.
Family: Labiatae or Lamiaceae. Part used is essential oil from leaves and flower tips.

Description:

The dark-blue bilabiate flowers are medium-sized false whorls in one-sided, terminal racemes. The calyx is downy, 5-tipped and glabrous. The stem is erect, quadrangular and branched. The leaves are sessile, lanceolate, entire-margined, punctate, glabroes and dark green

Chemical constituents:

- Terpenoides: marrubin, ursolic acid, oleanolic acid.
- Volatile oil: linalool, camphor, pinochamphone, thujone, alpha-pinene, beta-pinene, limonene, camphene, alphaterpinene, bornylacetate, and isopinocamphone.
- Flavonoids: Hesperidin, diosmetin
- Other ingredients: tannin, resin, caffeic acid, and polysaccharides.

Pharmacology:

- Polysaccharides, tannins and caffeic acid exert antiviral activity against HIV and herpes infections.
- Hyssop has stimulant, expectorant, sedative and antispasmodic

Reported uses:

- Used as a fragrance in soaps, perfumes and cosmetics as well as flavoring in food.
- Indicated as an antiasthmotic, antispasmotic and exectorant as well as to treat sore throat (used as a gargle).

Dosages and routes of administration including dosage forms:

- Two 445 mg capsules to be taken orally 3 times daily.
- 10-15 drops of the extract (12-14% by volume) in water to be taken orally 2-3 times daily.
- Hyssop tea is used as a gargle 3 times daily, the tea is prepared by steeping 1-2 taespoons of the dried hyssop flower tops in 150 ml boiling water for 10-15 min. and then straining.
- Avoid internal use of hyssop oil due to possible neurotoxicity.

Adverse reactions:

Nausea, vomiting, anorexia, diarrhea, hypersensitivity reactions.

Oral use of hyssop oil was associated with tinic-clonic convulsions in adults (10-30 drops) and in children (2-3drops for several days)

Interactions:

The herb should not be used tochildren younger than 2 years of age and persons with hypersensitivity to hyssop.

Contraindications:

The herb should not be used to children younger than 2 years of age and persons with hypersensitivity to hyssop.

Pregnancy and lactations:

Because hyssop is an abortifacient, it sould not be used during pregnancy and lactation until more research is available

Special considerations:

- Assess for hypersensitivity reactions. If present, discontinue use of hyssop and administer antihistamine or other appropriate therapy.

References:

- Broun, D.E ncyclopedia of hesles & their mses, Dorling Kindersley, London, New york, stattgart, Moscow, 1995.a
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Hypericum

Synonyms:

Hypericum perforatum L, st. John's wort, John's wort, amber, goatweed, rosin rose, witches'herls

Biological origin and part used:

Hypericum is found in Europe, Asia and the USA.The plant parts used are the flowrs. Family: Hypercaceae.

Description:

The plant has leaves and yields golden-yellow flowers, which bloom from June to September. The petals contain black or yellow glandular dots and lines. Harvest of the plant for medicinal purposes must occur July to August, and it must be dried immediately to avoid less of potency. Hypericum may derive from the Greek hyper, ”above” and eikon “ picture” because the flowers were placed abpve religions images to keep away evil at the northern midsummer festival (June 24).

Chemical constituents:

- Naphthodianthrones: hypericin, pseudohyericin.
- Phenols: hyperforin, caffeic acid, chlorogenic acid, p-commaric acids.
- Flavanoid: hyperin, hyperoside, isoquerctrin, kaempferol, luteolin, quercetin, quercitrin, rutin.
- Bioflavonoids: amenotoflavone, biapigenin
- Other constituents: phloroglucinol (adhyperforin), tannins

Pharmacology:

- Hypericum has antidepressant activity, which is more closely corrected with hyperforin. In animals, hypericum affects behavior similarly to standerd antidepressant drugs. Hypericum extracts and hyperforin inhibit the synaptosomal reuptake of monamines such as serotonin, epinephrine and dopamine with about equal affinity.
- Hypericin and pseudohypericin have in-vitro and in-vivo activity against viruses including influenza virus, herpes simplex virus typr I and II, poliovirus retrovirus infection, murine cytemegalovirus, and hepatitis C.
- Hypericin exerts effect against vitiligo, whereas amentoflavone (a diapigenin derivative) possesses antiulcerogenic and anti-inflammatory properties.

Reported uses:

- To treat mild to moderate depression and anxiety.
- It may be used tipically as an anti-inflammatory to relive hemorrhoids, as well as to treat vitiligo and burns.

Dosages and routes of administration including dosage forms:

- Adult oral dosage is 300 mg hypericum eextract, standardized to 0.3% hypericin, 3 times daily.
- Applied topically when required.
- Available forms include cream, sublingual capstipation, abdominal cramps, sublingual, capsules and tincture.

Adverse reactions:

Constipation, abdominal cramps, dizziness, insomnia, restlessness, fatigue, photosensitivity, rash, hypersensitivity.

Interactions:

- Severe photosensitivity may occur when hypericum in given with ACE inhibitors, loop diuretics, thiazide diuretics, NSAI drugs, oral contraceptives, sulfonamides, sulfonylureas, or tetracyclines.
- Serotonin syndrome may result when hypericum is combined with amphetamines, tricyclic antidepressants, selective serotonin reputake inhibitors, or trazodone.
- Increased sedation may result when hypericum is given with paroxetine.
- Rejection of transplanted hearts has occurred when hypericum was taken orally with cyclosporine as a result of decreased cyclosporine levels due to induction of cytochrome P450 by hypericum.

Contraindications:

Hypericin should not le given to cbildren ar persons whe are hyrersenitive to this herl

Pregnancy and lactations:

Until more research is available, hypericum should not be used during pregnancy and lactation

Special considerations:

- Assess for drugs, foods and herbs, which may interact with hypericum.
- Advice the client to avoid high-tyramine foodssuch as herb which may interact with hypericum.
- Advice the client to avoid high-tyramine foods such as aged cheese, sour cream, pickled moducts, liver, raisins, bananas, figs, meat tendenizers, chocolateand yogurt and to avoid increased caffine intake when using this herb orally.
- Inform the client that therapeutic effect may take 4-6 weeks for treatment of depression. If no improvement occur in that time, another therapy should be considered.
- Advice the client to avoid the sun or use sunscreen or protective clothing to prevent photosensitivity when using this herb.

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Ilex

Synonyms:

Ilex paraguariensis, ilex equifolium, mate, yerba mate, Jesuit's tea, paragway tea

Biological origin and part used:

Agenous of about 400 species of evergreen and deiloluous trees and shrubs occurring world wide, specially in tropical and temperate parts of Asia and north and south America.ilex aquifolium is a very valuble species found in western and southern Europe, northern Africa and western Asia. Ilex paraguensis is native to woods and scrules in Paraguay, Barazil and Argentina; Ilex verticillata occurs in suramps in North America. Plant parts used are dried leaves. Family: Aquifoliaceae.

Description:

The plant is evergreen shrub or tree with pale bark and an oblong-oval crown. The leaves are alternate, obovate, and acuminate. They are dark green above and pale green beneath and are tough and coriaceous.

Chemical constituents:

- Methylxanthines: caffeine, theobromine, theophylline.
- Minerals: iron, calcium, manganese, magnesium, sodium, potassium, zinc, copper.
- Flavonoids: rutin, isoquercitin, kaempferol glycosides.
- Other ingredients: sterol, fat, ursolic acid.

Pharmacology:

Primary research has focused on several actions has focused on several actions of this herb including vasodilation, antioxidant and antiobesity actions. The herb is thonght to have appetite suppressant and lipolytic activity.

Caffeine acts as CNS stimulant increases heart rate and contractility, inhibits platelet aggregation, stimulates gastric acid secretion, causes diuresis, relaxes extracerebral vascular and bronchial smooth muscle.

Reported uses:

It is used as a diuretic and to treat depression, lethargy, fatigue, constipation, arthritis, GI disorders, urinary tract infections, cardiac insufficiency, arrhythasias kidney or blodder stones.

Dosages and routes of administration including dosage forms:

It is available in form of fluid extract, leaves and tea.
Oral dosages for fluid extract 2-4 ml (1:1 dilution in 25% alcohol), and for tea 2-4 g 3 times daily

Adverse reactions:

Nausea, vomiting, anorexia, hepato toxicity, hypersensitivity reactions, anxiety, nervousness, insomnia, restlessness, irritability, headache.

Interactions:

- Decreases the action of antidiabetics, barbiturates, opiates, and benzodiazepines.
- May increase the effects of CNS stimulants and diuretics.
- May lead to hypertensive crisis when given with MAOinhibitors.
- Caffeinated foods and drinks may increase its effects

Contraindications:

Until more research is available, it should not be given to children. Persons with anxiety disorders, hypertension, or hypersensitivity to this herb should not use it

Pregnancy and lactations:

Until more research is available, it should not be given during pregnancy and lactation

Special considerations:

- Assess for hypersensitivity reactions, use of drugs interacting with tlis herb and hepatic function
- Instruct the client to store the herb products in a cool, dry place, away from heat and moisture.
- Inform the client that using large amounts of this herb for a long period may lead to cancers of the GIT and urinary tract.

References:

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- Fleming, T. (editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.
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Inula

Synonyms:

Inula Britannica, British elecampane, Alant-Okleuveasis, inula helenium, inula japonica.

Biological origin and part used:

A genus of about 90 species of mainly perennials and subshrubs, which is distributed across warm and temperate parts of Eurasia. Inula helenium is native to southern Europe and western Asia. The medicinal part is the flower. Family

Description:

The semi-globose composite flowers are surrounded by bracts; they are single or in umbelliferous racemes with bracts arranged in a number of rows. The lingual flortes are yellow, the tubular florets are 5-tipped androgenous and numberous. The anther has an appendage toil

Chemical constituents:

- Sesquiterpenes: sesquiterpene lactone, particulary gaillardin but also includeg isoquercitanin.
- Flavonids: including isoquercitrin
- Caffeic acid derivatives: including chlorogenic acid

Pharmacology:

- A watery extract of the sesquiterpene – containing drug inhibits in vitro c AMP – phosphodiesterase up to 60 %, and prevents the infection of human embryo muscle cells with herpes simplex virus II.
- The secretolytic and emetic effect with which the herb is credited has not been documented

Reported uses:

- The flower of the East Asian species is used as depurative.
- Unproven indications in folk medicine include feeling of fullness in the chest and diaphragm area, conghs and symptoms of the efferent urinary tract.

Dosages and routes of administration including dosage forms:

- Whole and powerded herb are used.
- The herb is roasted with a honey solution until it is no longer sticky. A decoction is prepared by boiling 3-9 herbs in a sealed sachet.

Adverse reactions:

No health hazards are known in conjunction with the proper administration of designated therapeutic dosages

Interactions:

No interactions have been reported

Contraindications:

Until more research is available the herb should not be given to children. The herb is contraindicated to persons with hypersensitivity to it

Pregnancy and lactations:

Until more research is available this herb should not be administered during pregnancy and lactation

Special considerations:

- This herb should be stored in a dry place
- Assess for hypersensitivity reactions if occur discontinue use and give a proper treatment

References:

- Bown, D. Encycolpedia of herbs and their uses, Dk Publishing Inc., New York, London, Stattgart, Moscow, 1995.
- Fleming, T. (editor), PDR for herbal medicines, Medical Economics company, montvale New Jersey, 2000
- Iijima, k. etal. Preventive effect of taraxasteryl acetate from inula Britannica subsp. Japonica on experimental hepatitis in vivo. Planta Medica, 61, 50-53, 1995.

Jaborandi

Synonyms:

Pilocarpus jaborandi, P. microphyllus, P. pinnatifolius, arruda brava, arruda do mato, Indian hemp, jamguarondi, juarondi, pernambuco jaborandi

Biological origin and part used:

About 20 species of shrubs and small trees belong to this genus which occur in tropical America and the W indies. Plant parts used are the leaves

Family: Rutaceae

Description:

The plant is a tree or shrub. The branches are pubescent when young and glabrous when oler. The leaves are alternate to opposite an od- pinnate. The pina are sessile, elliptical, distinctly asymmetrical at the base and have an indented tip. The leaflets are dull green with entire, slightly recurved margins and an uneven base. The taste is bitter and the oder slightly aromatic

Chemical constituents:

- Alkaloids: pilocarpine, isopilcarpine, pilocarpinie
- Other constituents: joborine, pilosine, tannic acid, jaboric acid, pilocarpic acid, volatile oil

Pharmacology:

- Active alkaloids of jaborandi leaf are well absorbed when taken internally, excreted via urine.
- The chemical component pilocarpine is responsible for the pharmacological action of jaborandi. Pilocarpine produces papillary constriction (miosis) by duplicating muscarinic effects of acetylcholine; increases aqueous humor flow; ecreases intraocular pressure, increases exocrine gland section (e.g. tear, gastric and bronchial secretion). Pilocarpine increases motility of the urinary tract and the gallbladder. Applie topically as aphthalmic preparation, pilocarpine acts as a direct-acting miotic, increases aqueous humor outflow and decreases intraocular pressure

Reported uses:

The primary use of joborandi leaf is to reduce the intraocular pressure caused by glaucoma and to treat xerostomia. It is also used to treat iabetes, nephritis and has been used topically to treat skin disorders such as psoriasis and eczema. Pilocarpine is used in eye preparations to treat open-angle glaucome, chronic angle-closure glaucoma, acute angle-closure glaucoma (in combination with other agents to decrease intraocular pressure before surgery), reversal of mydriasis, pre- and post- operative increased intraocular pressure. Pilocarpine is given orally to treat xerostomia from salivary gland hypofunction secondary to radiotherapy for head and neck cancer

Dosages and routes of administration including dosage forms:

- Eye drops: 1-2 drops 3 times daily
- Oral preparations
  Extract: 20-30 drops
  Powdered leaves: 10-60 groins
  Tincture: 1 gram

Adverse reactions:

Nausea, vomiting, anorexia, dysphagia, rhinitis, amblyopia,epistoxis, blurred vision, stinging, eye pain, urinary frequency, hypertension, tachy cardia, edema, tremors, dizziness, headache, weakness, hypersensitivity reactions, flushing, sweating

Interactions:

- Effects are decreased when used internally with antichdinergic drugs
- Adverse cardiovascular reactions are increased when used internally with β-blockers
- Increased cholinergic effects occur when used internally with ophthalmic cholinergics
- The action of jaborandi (ophthalmic route) is ecrease when it I used with topical NSAI drugs

Contraindications:

- The herb should not be used by persons with uncontralle asthma, angle-closure glaucoma, or iritis, or by persons with hypersensitivity to it.
- Persons with chronic obstructive pulmonary disease, bronchitis, cardiac disease, psychiatric disorders, neurologic disorders, or cognitive disorers should avoid the use of jaborandi herb.

Pregnancy and lactations:

Until more research is available this herb should not be used during pregnancy and lactation and should not be given to children

Special considerations:

- Assess for hypersensitivity reactions, dizziness, headache, blurred vision,hypertension, and tremors
- Assess for medication used to avoid interactions
- Store in dry, cool environment
- Advise the client that visual changes such as blurred vision may occur. The client should avoid driving or operating machinery

- Advice the client using jaborandia via the ophthalmic royte, the eyes initially may sting and headache, brow ache, and decreased night vision may occur

References:

- Fleming, T. (editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.
- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
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- Duke, J. CRC handbook of medicinal herns, Raca Roton, Fla, CRC Press, 1985

Jojoba

Synonyms:

Simmondsia chinesis, S. californica, deernut, goatnut, pigut, Buxus chinesis.

Biological origin and part used:

Jojoba is a shrub indigenous to Arizona, California and northern Mexico and grous plant in deserts worldwide including Egypt.
Part used is oil from seeds. Family: Buxaceae

Description:

Jojoba is a woody evergreen shrub with thick, leathery, bluish green leaves and dark brown nut-like fruit, male and female flowers are born on separate plants. It thrives in well-drained, coarse desert soils and coarse mixtures of gravels and clays. The mature plant produces seeds, which range in size between a coffee bean and peanut

Chemical constituents:

- Vitamins: B, E
- Minerals: chromium, zinc, copper
- Simmondsin
- Alchohol

Pharmacology:

- Jojoba oil is an emollient and it penetrates skin and skin oil easily, unclogging hair follicles and preventing sebum build up which could lead to hair loss
- The oil is effective against acne, psoriasis, sunburn and chapped skin.
- Recent study has shown antioxidant activity of Jojoba
- One study showed that in rabbits given a 2% Jojoba dietary supplement there were levels of cholesterol decreased by 40%.

Reported uses:

- Treatment of skin disorders including chapped, dry skin, scaling, eczema, psoriasis and seborrhea. It is a component of many common skin products.
- Anecdotal information promotes the use of Jojoba to treat hair loss and acne and to decrease the appearance of wrinkles.
- Jojoba oil is used in cosmetics and personal care products e.g. shampoo, body lotions.

Dosages and routes of administration including dosage forms:

- Available forms include beads, butter, crude, wax, cream, dandruff shampoo, listick, lotion, soap.
- Recommended oil ingredient levels include the following:
- Skin care preparations, 5-10%
- Shampoos and conditioners 1-2%
- Bar soaps 0.5-3%

Adverse reactions:

Hypersensitivity reactions, contact dermatitis

Interactions:

No interactions have been reported

Contraindications:

Persons with hypersensitivity to Jojoba.

Pregnancy and lactations:

Jojoba is likely to be safe in pregnancy and lactation when used topically for hygienic purposes

Special considerations:

- Asseaa for hypersensitivity reactions and contact dermatitis, if these are present, discontinue use of Jojoba and administer antihistamine or otherappropriate therapy
- Instruct the client to use Jojoba topically only if Jojoba is ingested, toxicity will occur

References:

- Fleming, T. (editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.
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Jujube

Synonyms:

Zyzyphus jujube, black date, Chinese Jujube, Da-Zao, Hei Zao, Hong Zao, jujube plum, red date, Zao

Biological origin and part used:

The plant grows in southern Eruope, Africa, Middel East and the Far East. The applicable part of jujube is the fruit.

Family: Rhamnaceae

Description:

The flowers are small and pale yellow. The fruit is of variable size, depending on the origin. The fruit is red, smooth and shiny when fresh, browinish-red when dried. The fruit is mucilaginous with sweet and sour taste

Chemical constituents:

Triterpene saponins (e.g. jujboside – B), mucilage, tannins, flavonoids, isoquinolone alkaloids (oxonucifern, noruciferin), peptide alkaloids (oxonuciferin, nornuciferin), peptide alkaloids, triterpenes (e.g. betulinic acid, oleanolic acid), hydroxy coumarins, sugars (sacharose, glucose, fructose, golactose), fruit acids (malic acid, tartaric acid)

Pharmacology:

- Jujube posseses emollient, anti-allergic, hypotensive and sedative effects.

- Animal data suggests that jujube increases body weight and swimming endurance. It also protects against carbon tetrachloride – induced liver damage and it possess anti-infalmmatory effects. An alcoholic extract inhibits growth of Bacillus subtilis, while a methanolic extract containing oleanolic acid and ursolic acid inhibits the in vitro dental cavity- producing streptococcus mutants.

Reported uses:

- Orally, jujube is used for improving muscular strength and to protect against liver diseases and stress ulcers. It is also used as a sedative
- In Arabic medicine, jujube is used orally for fever wounds, ulcers, inflammation, asthma, and eye diseases.
- In Chinese medicine, it is used for dry, itchy skin, neutralizing drug toxicities, lack of appetite, fatigue, diarrhea, anemia, hypertension, purpura, and as a sedative
- Im manufacturing, extracts are used in skin care products for anti-inflammatory, antiwrinkle, moisturizing, and relief from sunburn

Dosages and routes of administration including dosage forms:

No typical dosage has been reported

Adverse reactions:

None reported

Interactions:

No interactions are known to occur, and these is no known reason to expect a clinically significant interaction with jujube

Contraindications:

No contraindication has been reported

Pregnancy and lactations:

Avoid using in pregnancy and lactation since insufficient reliable information is available

Special considerations:

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

References:

- Fleming, T. (editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.
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Juniper

Synonyms:

Juniper communis, J. oxycedrun L., ordic baccal juniper, common juniper, dwarf, gemener, ground juniper, hackmatack, harvest, horse savin, juniper mistetoe

Biological origin and part used:

Juniper us an evergreen found in the United states, Canada, Europe, and Asia. Plant part used is the dried fruit.

Family: Cupressaceae

Description:

The gerus Juniperus includes 60-70 species of aromatic evergreens. The plants bear blue or reddish fruit described as gerrie or berry=like cones junipers are widely used as ornnmental trees. The cone is small green berry during its first year of grouth and turns blue-black during the second year.

Chemical constituents:

- Cresole guaiacol
- Volatile oils: piene, sabinene, mycrene, limonene, germacrene D, gamma-nurolene
- Terpinen
- Juniperin
- Resin
- Acids: malic acid, formic acid
- Proteins

Pharmacology:

- diuretic effect: juniper berry has a diuretic effect which is likelydue to the action of terpinen-4-01 which is known to increase renal glomerular filtration.
- Berry extracts increase uterine tone and should, therefore, not be ingested by pregnant women. Anti-implantation / antifertility activity has been determined in female rate
- The dried berries were shown to reduce heperglycemia in rats with streptozotorin-induced diabetes
- Juniper has been shown to inhibit prostaglandin synthesis and decrease platelet activating factor. Therefore, it is effective in wound and inflammatory disease treatments.

Reported uses:

    - Juniper has been used as a carminative and in treatment of GI disorders
- It has been used as a guiretic and to treat urinary tract infections
- In traditional Swedish medicine, J. communis has been used to treat wounds an inflammatory diseases.
- Therapeutic uses of juniper include juniper boths for treatment of neurasthenic neurosis and management of scalp psoriasis in its tar form in combination with other tars

Dosages and routes of administration including dosage forms:

- It is available in form of berry juice, capsules, essential oil, liquid, and tablets
- Given orally (capsules, tablets) at a dose of 250-500 mg daily in treatment of diabetes mellitus
- The essential oil is given orally at a dose of 0.03 – 0.2 ml 3 times daily in treatment of GI disorders
- Given at oral dose of 0.2-0.3 mg/ml in the treatment of inflammation
- At an oral dose of 20 mg/ml it is used in treatment of urinary tract infection in adult. Berry juice diluted in water is given orally to treat urinary tract infection in children

Adverse reactions:

Nausea, vomiting, diarrhea, anorexia, increased diuresis, hypersensitivity reactions, skin irritation, burning, redness (topical)

Interactions:

- Theoritally, juniper may increase the action of antidiabetic agents and decrease the action of diuretics
- Juniper taken with lithium may result in dehydration and lithium toxicity
- The juniper berry can interfere with urine assays, and large amounts can cause purphish urine

Contraindications:

- Juniper should not be given to children younger than 2 years of age
- Persons with diabetes mellitus and GI disorders should use this herb with caution
- Persons with urinary tract infections or inflammation should use this herb only under the supervision of specialist
- Juniper should not be used by persons with hypersensitivity to it

Pregnancy and lactations:

Because juniper is an abortificient, juniper shouldnot be used during pregnancy. Until more research is available this herb should not be used during lactation

Special considerations:

- Assess for hypersensitivity reactions, skin irritation, burning and redness. If these are present, discontinue or other appropriate therapy
- Bladder infactions can go on to become kidney infections. For this reason, seek medical supervision if your symptoms don't resolve in a feur days, or if you develop intense low back pain, fever. Chills, or other signs of serious infection

References:

- Fleming, T. (editor), PDR for herbal medicines, Medical Economics Company, Montvale New Jersey, 2000.
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Lappa

Synonyms:

Arctium lappa, Artium minus, burdock, bardane, beggar's buttons, clotubur, cockle buttons, couckold, edible burdock, fox's clote, gobo, great bur, great bure, great burdrck, happy major, hardock, love leaves, personata, philanthropium, thorny burr, wild gobo

Biological origin and part used:

Lappa is a perennial found in China, Europe and the United States. The parts of the plant used are roots leaves and seeds

Family: Asteraceae

Description:

The plant is a perennial or biennial herb which has ovate acuminate leaves with broad pinkish flowers with reddish violet tubular florets surrounded by many involucral bracts ending in a stiff spiny or hooked tip. The root pieces, used in teas, are hard, minimally fibrous, longitudinally wrinkled, and grayish brown to black

Chemical constituents:

Carbohydrate, insulin, tannins, poly phenolic acids, volatile acids, nonhydroxy acids, polyacetylene, glycosides (anthroquinones), gammo guanidine-n-butyric acid, lactone glycoside (arctiin), lignan A, B, C, D, E, F, neoarctin, daucosterol, matairesinol, lappaol, erctigenin, xyloglucan.

Pharmacology:

- Lappa extract caused a long-lasting reduction in blood glucose and increase tolerance of carbohydrate in diabetic rats
- Extracts show antibacterial and antifungal properties
- A polyner from lappa root may assist in the prevention of cancer by decreasing a mutagens. Root extracts have been shown experimentally to inhibit temors.
- Lappa was able to reverse hepatic damage induced by carbon tetrachloride or acetaminophen in mice
- Several reports cover the antipyretic, diuretic and diaphoretic properties of lappa
- Among the more recent studies are its effect in the treatment of urolithiasis, potential inhibition of HIV 1 infection in vitro and platelet activating factor antagonism

Reported uses:

- Lappa root are used for their hypoglycemic, antiseptic, toxicopectic and antitermor actions.
- The herb is used in the treatment of fever, fluid retention and kidney stones
- Lappa is used for skin disorders such as psoriasis, eczema, boils. Lappa compresses can soothe the swelling of arthritis, rheumatism and hemorrhoids.

Dosages and routes of administration including dosage forms:

- One teaspoon of root (only 1- year – old root should be used) to 1.5 pints of boiling water, steeped 1\2 hour. Drink at room temperature, 1-2 cups daily
- Fluid extract is taken orraly a dose of 1-3 ml 2 times daily
- Tincture is taken orally at a dose of 3-5 ml 2-4 times daily

- Applied topically as a cream when needed
- Available forms include capsules, cream, fluid extract, tae and tincture

Adverse reactions:

Hypotension, hypoglycemia, hypersensitivity reactions

Interactions:

Increased hypoglycemic effects of antidiabetic agents and hypotensive effect of antihypertesive drugs

Contraindications:

- This herb should not be used by persons who are hypersensitive to it
- It should not be used continuously by persons with diabetets or cardiac disorders

Pregnancy and lactations:

This herb should not be used during pregnancy uterine stimulation may occur. It should be avoided in lactation since insufficient reliable information is available

Special considerations:

- Asseaa for hypersensitivity reactions and for the use of antidiabeties and antihypertensives
- Monitor blood pressure and blood glucose levels while a person is taking this herb
- Instruct the client to store this herb in a tight container away from sunlight and moisture

References:

- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
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- Lin, S.C. etal. Hepatoprotective effects of Arctium laooa Linne on live injuries induced by chronic ethanol consumption and potentiated by carbon tetrachloride- Roth, L. Mosby's Handbook of Herbs

Lavander

Synonyms:

Lavandula angustifolia Mill (syn. L. Officinalis chaix and L. Spical), L. Stoechas, L. Dentata, L. Latifolia, L. Pubescens Decen, aspic, lavandin, spike lavander, true lavander, English lavander, French lavander, lavanda, lavande commun, nardo, Spanish lavander

Biological origin and part used:

A genues of 21 oromatic evergreen perennial and shrubs that are found throughout Mediterranean regions, the Middel East and India. Parts used are the flowers and oils.

Family: Lamiaceae

Description:

Lavanders areamong the most popular plants for gerb gardens, having subtle coloring and delightful fragrance. The hardern kinds make attractive hedges, while tender variants may be grown. Lavanders difffer in habit, foliage, and flower colour, which range from typical lavander-blue to various shades of purple and white. The narrow leaves are fuzzy and gray when young and turn green as they mature

Chemical constituents:

- Volatile oil: linalool, limonene, perillyl alcohol, linalyl acetate, cis-ocimene, beta-caryophilline, terpinene
- Coumarins: umbelliferone, herniarin
- Other costituents: caffeic acid derivatives, tannin.

Pharmacology:

- It is thought that lavander, when inhaled, acts directly on the olfactory nerve in the brain, producing a sedative effect. Lavander oil aromatherapy is comparable to hypnotics or tranquilizer for insomnia.
- Some studies indicate that lavander oil has choleretic and cholagague action
- Lavander helps in functional disorders of upper abdomen with irritable stomach and are calming and antiflatulent

- Perillyl alcohol, a compound distilled from lavander, possesses anticancsr activities. The anticancer effect of lavander may be to produce redifferentiation in cancer cells
- A study of percutaneous absorption of lavander oil in massage found that within 5 minutes after application, the main constituents of the oil were detected in the blood. Most of the lavander oil was excreted within 90 minutes
- A report indicated that lavander oil as a both additive relieves perineal discomfor after childbirth

Reported uses:

- Lavander has been used as a sedative, anxiolytic and to relieve insomnia
- It is useful as antispasmodic, carminative and for treatment of restlessness
- It may used to produce diuresis
- Used to increase appetite and to treat cuts and abrasions
- It is a component in many cosmetic products such as shampoos, conditioners, lotions and soaps
- Initial research studies are available documenting the use of lavander to treat cancer

Dosages and routes of administration including dosage forms:

Available forms include candles, flowers, oil, tincture, lotions, soaps, shampoos, and conditioners

- The oil is taken orally by placing 2-4 drops on a cube of sugar
- Tea is prepared by placing 1-2 teaspoons of flowers in 1 cup boiling water, steep 10-15 min
- Tincture (1:5) is taken at a dose up to 2 ml 3 times daily
- For topical use, 1-2 cups of flowers are placed in teapot, heated to boiling, strained, and added to bath water.

Adverse reactions:

Nausea, vomiting, increased appetite, costipation, headache, drowsiness, dizziness, euphoria, CNS depression, hypersensitivity reactions, contact dermatitis

Interactions:

- Alcohol, antihistamines, opiods and sedative / hypnotics may increase sedation when used with lavander.
- Lavander may decrease the actionof statins
- Lavander tea may decrease absorption of iron salts, separate by 2 hours

Contraindications:

Persons with hypersensitivity to lavander and children should not use it

Pregnancy and lactations:

It should not be used during pregnancy and lactation until more research is available.

Special considerations:

- Asseaa for hypersensitivity reactions and for drugs interacting with lavander
- Instruct the client to store this herb in a cool, dry place away from sunlight and moisture
- The oil should be taken internally only under the supervision of a qualified herbalist

References:

- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
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- Hagg, J. D., Goud, M. N. Mammary carcinoma regression induced by perolly alcohol, ahydroxylated analog of limonene, Cancer Chemother. Pharmacol. 34, 477-483, 1994

Lceland moss

Synonyms:

Cetraria islandica, consumptionmoss, eryng-leaved liverwort, Iceland lichen.

Biological origin and part used:

It is a lichen foumd in Iceland and other parts of the Northern hemisphere. All parts of the lichen are used. Family parmeliaceae

Description:

Iceland moss tastes bitter and when wet, has a smell reminiscent of seaweed. It consists of the dried thallus of cetraria islandico as well as its preparations.it is collected in the wild, then air-dried, moistened, cut and re-dried

Chemical constituents:

- Polysaccharides: Lichenin, isolichenin
- Aromatic lichen acids: Fumarproteetratic acid, protocetratic acid, cetratic acid
- Aliphatic lichen acids: Protolichesteric acid

Pharmacology:

- Iceland moss has antioxidant, antimicrobial, antiretroviral, and anticancer actions.
- It has a demulcent effect due to the sequestering action of the polysaccharides.

Reported uses:

- Cough / bronchitis and common cold
- Dyspeptic complaints
- Anorexia
- Inflammation of the mouth and pharynx.

Dosages and routes of administration including dosage forms:

- For cough and cold: one lozenge to be taken when needed.
- Decoction: mix 1 tablespoonful of shredded moss in 8 ounces water, boil 3 min., strain, take twice daily
- Tincture: 1-2 ml 2-3 time daily

The herb may be also available in form of creams or capsules.

Adverse reactions:

Nausea, vomiting, gastritis, anorexia, hypersensitivity reactions, hepatotoxicity

Interactions:

Oral medications can decrease absorption of orally administerated drugs.

Contraindications:

- Until more research is available, Iceland moss should not be given to children. This herb should not be used by persons with gastric or duodenal ulcers or by those with hypersensitivity to it.

Pregnancy and lactations:

Until more research is available, Iceland moss should not be used during pregnancy and lactation

Special considerations:

- Assess for hypersensitivity reactions and heptotoxicity as indicated by clay- colored stools, and right upper-quadrant pain. Monitor hepatic function studies such as AST, ALT and bilirubin.
- Instruct the client to store Iceland moss in a cool, dry place, away from heat and moisture.

References:

- Gulcin, I. etal. Determination of antioxidant activity of lichen Cetraria islandica, J Ethnopharmacol, 79, 325-329, 2002.
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Leonurus

Synonyms:

Leonurus cardiaca, motherwort, lion's tart, oman , Roman motherwort, throwart

Biological origin and part used:

Leonurus is found in Europe, Canada and the united states. Plant parts used are leaves and seeds

Family: Labiatae or Lamiaceae

Description:

The plant is perennial and has a short woody rhizome. The stem is erect, quadrangular, grooved, hollow, often red-violet and usually hairu. The leaves are long-petioled, pubescent or glabrous. The lower leavesare plamate and cordate at the base. The upper leaves are 3- lobed. The upper surface is dark green, the lower surface light green. The plant has an unpleasant smell.

Chemical constituents:

- Alkaloids: stachydrine, leonurine, betonicine, turicin, kleunuridin, leunurinine.
- Other constituents: saponins, flavones, cardonolide glycosides, prehispanolone, irridiod, tannins, terpenoids, triterpenes, lavandulifolioside.

Pharmacology:

- Experimentally leonurus extracts have been reported to have cardiotonic effect. Similar to digitalis, it decreases heart rate and increases the force of myocardial contraction
- It possesses anticoagulant effect which was found to result from a decrease in fibrinogen and blood viscosity. One of the chemical components responsible for this action may be prehispanolole.
- This herb exerts a chemoprotective action in lesions of the breast and uterus. No effect was seen in pregnancy-dependent mammary tumors,mammary hyperplastic alveolar nodules, or uterine adenomyosis. In fact, leonurus promoted the growth of pregnancy-dependent mammary tumors and inhibited mammary hyperplastic alveolar nodules

Reported uses:

- Treatment of amenorrhea and flatulence
- Ground parts of the herb are taken for cardiac symptoms of neurosis, cardiac insufficiency, fast heart rate or other arrhythmias and hyperthryoidism
- It has been used as an anticoagulant, anti-inflammatory, antispasmodic, anti-anxiety, and anticancer herb.
- Dosages and routes of administration including dosage forms:
- 2g of dried above-ground parts or 1 cup of tea 3 times daily is taken orally
- Fluid extract (1:1 dilution) is taken orally at a dose of 4.5 ml

Adverse reactions:

Nausea, vomiting, diarrhea, anorexia, hypersensitivity reactions, photosensetivity, uterine bleeding, increased bleeding time.

Interactions:

- Increased risk of bleeding when given with anticoagulants
- Decreased heart rate when taken with β-blockers or digoxin
- It increases the action of CNS depressants.
- May decrease absorption of iron salts, separate by 2 hours

Contraindications:

This herb should not be used by persons with thrombo cytopenia (risk of bleeding) or hyper sensitivity to this herb or other members of Labiatae family

Pregnancy and lactations:

Leonurus should not be used during pregnanvy because it may cause uterine bleeding.Until more research is available, this herb should not be used during lactation, it should not be given to children

Special considerations:

- Assess for hypersensitivity reactions or photosensitivity reactions
- Assess for risks of bleeding
- Instruct the client to store leonurus products in a cool, dry place, away from heat and moisture.
- Because this herb may cause photosensitivity, advise the cleint to stay out of the sun or to wear protective clothing while using leonurus

References**:**

- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elseveir Mosby, St. Louis, Missouri, 2006.
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Levisticum

Synonyms:

Levvisticum officinale, Levisticum radix, lovage, Angelica Levisticum, Ligusticum Levisticum, love parsley, lovose

Biological origin and part used:

Lovage is a perrenial, found in Europe, U.S.A., Canada and the eastern Mediteeanean region. Plant parts used are the roots, leaves and seeds
Family: Apiaceae or Umbelliferae

Description:

The plant is biennial with a fusiform, pale root that produses the eract, brabched and hollow stem. It is smooth, light green ans sometimes has purple spots. The leaves are oblong to obvate, narrowed at the base, clasping and usually simple. They are thorny-tipped, lie horizontally and are thorny on the underside of the midrib. The fruit is 4-lipped and black with a broad edge. It is glabrous at the tip

Chemical constituents:

Volatile oil (ligusticum lactone, butyl phthalide, citronellal), lactone, coumarins, furocoumarins (bergaptene, apterin), hydroxycoumarin (umbelliferone), polyyene (faalcarindiol), terpenoids, volatile acids.

Pharmacology:

Ligustilide, an ingredient of lovage, has sedative antispsmodic and aquaretic effects in experimental animals. It can also have varied actions including cholinergic and antimicrobial activity, increasing uterine tone and increased gastrointestinal blood flow. The biter taste and aroma of lovage can increase the production of saliva and gastric juices

Reported uses:

- Treatment of renal disorders as a diuretic, an antilithic, and a renal antiinflammatory.
- May be used as a sedative and to treat gastricconditions and respiratory congestion

Dosages and routes of administration including dosage forms:

Available forms are oil and tea.

Tea is given orally after plaing 1.5 g finely cut root in 8 ounces of boiling water, straining after leaving to stand for 15 min., up to 8 g herb / day may beused

Adverse reactions:

Nausea, anorexia, hypersensitivity reactions, photodermatitis.

Interactions:

- Lovage increases the effects of anticoagulants (e.g. heparin, warfarin) and salicylates.
- With diuretics, lovage may interfere with diuretic therapy

Contraindications:

- Renal disease or irritation of the kidneys
- It might increse sodium retention and worsen hypertension
- Irrigation therapy, which as the use of lovage as a mild diuretic with copious fluid intake, is contraindicated in cases of edema that are due to limited heart or kidney function
- This herb should not be used by persons who are hypersensitive to it

Pregnancy and lactations:

This herb should not be used in pregnancy because of the possibility of uterine or menstrual stimulation.

Until more research is available, lovage should not be used during lactation and should not be given to children

Special considerations:

- Assess for hypersensitivity reactions or photosensitivity reactions
- Monitor BUN, creatinine, potassium, sodium, and chloride levels during lovage therapy. If leaves are elevated, use is discontinued
- Assess for risks of bleeding
- Instruct the client to store lovage products in a cool, dry place, away from heat and moisture

References:

- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elseveir Mosby, St. Louis, Missouri, 2006.
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Lily of the valley

Synonyms:

Convallaria majabis, convallaria herb, convall-lily, Jacob's ladder, lader-to-Heaven, lily, May bells, May lily, muguet, our-lady's – tears, male lily

Biological origin and part used:

There are 3 species of rhizomatous perennials in this genus, which occurs in northern temperate regions. The name comes from the Latin convallis, "valley", and refers to the plant's natural habitat, while majolis signifies the flowering time, may. Convallaria majolis is morecommon in gardens than in the wild in many parts of Europe. It is also found in U.S.A and Canada.
Plant parts used are the flowers, leaves, fruits and roots
Family: Liliaceae or Convallariaceae

Description:

Creeping perennial with pairs of ovate to elliptic perennial with pairs of ovate to elliptic leaves. Racemes of 5-13 white fragrant, bell-shaped flowers, waxy in texture, appear in late spring. Followed by globose, red berries

Chemical constituents:

Glycosides (convallotoxin, convallarinycoside, canvallosid, locundjosid), saponins, volatile oils, asparadin, rutin, resin

Pharmacology:

- It increases efficiency of heart muscle contraction. Although lily of the vally has similar action to digitalis, there are safer, less expensive and more reliable products to use.
- Among proposed actions are hypoglycemic, emetic and diuretic effects

Reported uses:

- Lily of the valley has been used as an anticonulsant, as a cardiotonic (may treat congestive heart failure)
- It may treat heart rate irregularities and may improve circulation
- Topically, it has been used to treat burns

Dosages and routes of administration including dosage forms:

Standardized powder is taken orally at adose of 0.6 g. commercial pharmaceutical preparations are available as capsule, drops, solutions, tablets, tinctures, liquid extracts, dryextracts

Adverse reactions:

Nausea, vomiting, diarrhea, anorexia, abdominal pain, increased salivation, headache, dizziness, psychosis, paralysis, come, mydriasis, hypersensitivity reactions, clammy skin, dermatitis, hyperkalemia, urinary urgency.

Interactions:

- May lead to cardiac glycoside toxicity when given with macrolides or tetracyclines
- It increases the risk of bradycardia when given with β-blockers or calcium channel blockers.
- It increases the risk of digoxin toxicity
- Concomitant use with potassium-depleting diuretics may lead hypokalemia
- Theoretically, concomitant, long-term use with glucocorticoids can increase the risk of cardiac toxicity due to potassium depletion

Contraindications:

Persons with hypersensitivity to this herb or those with cardiac conditions such as heart failure or arrhythmias should not use this herb

Pregnancy and lactations:

Until more research is available, this herb should not be used during pregnancy and lactation, it should not be given to children

Special considerations:

- Assess for hypersensitivity reactions, dermatitis and for use with drugs
- Determine whether the client is using this herb under the supervision of a qualified herbalist. Lily of the valley is potentially deadly
- Instruct the client to store lily of the valley products in a cool, dry place, away from heat and moisture.

References:

- Jellin, J.M.etal. Natural medicines comprehensive data base, thired rdition, Stockton, CA, Therapeutic Research Fuculty, 2000.
- Skidmore-Roth, L. Mosby's handbook of herbs and natural supplements, third edition, Elseveir Mosby, St. Louis, Missouri, 2006.
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Paptisia

Synonyms:

Wild indigo, Horse-Fly weed, Indigo Broom, R attlebush

Reported uses (unproven):

Wild indigo root is used for septic and typhoid cases and fever e.g. diphtheria, influenza, malaria, septic angina and typhus. Orally, it is used for upper respiratory tract, common cold, tonsillitis, stomatitis, lymphademitis and frunculosis. Topically as an antiment for poinless ulcers, inflamed nipples and vaginitis (as douch)

Description:

Medicinal parts: of the plant is the root

Flower and fruit:

The flowers are terminal and axillary in 7 to 10 cm long, lightly flowered racemes. The pedicles are 3 to 5 cm long. The calyx is 4 to 5 mm long and glabrous but has a slight fringe. The corolla is yellow. The standard is circular with convoluted sides and is slightly shorter than the oblong wings. The 10 stamens are freestanding, the ovary is stemmed, alliptoid, drown together at the style and stigma and is glabrous. The fruit is a blue-black, ovoid, slightly swollen pod, 7 to 15 mm long with a sharp tip. The seeds are yellowish-brown, renal-shaped and 2 mm long

Leaves, Stem and Root:

The shrug is many-branched and grows to 1 m high with woody rootstock and knotty branches. The stem is 1 to 3 mm thick round, slightly grooved and glabrous. The alternating leaves are trifoliate and have a 1 to 3 mm long petiole. The stipules are small and arrow-shaped and early. The leaflets are 1 to 4 cm long and 0.6 to 1 cm wide, ovate, almost sessile and entire-margined, they are wedge-shaped at the base and rounded at the tip. The distinct midrib on the lower surface is pubescent. The leaves are brittle. The roots vary in diameter from 0.2 to 1.5 cm. the outer surface is brownish, vertically wrinkled and grooved. It is also warty due to root fibers sticking to the surface. The tissue is solid and fibrous. The transverse fracture shows a thick bark and whitish wood with concentric rings

Characteristics:

The taste is bitter and acrid, the odor is faint, the leaves yield an indigo dye, the wood a red dye.

Habitat:

Wild indigo is indigenous to southern Canada and the eastern U.S.

Production:

Wild indigo root is the underground part of Baptisia tinctoria which is collected and dried in autumn from plants growing in the wild
Not to be confused or odulterated with the root of Baptisia australis (falu blue indigo) and Baptisia alba.

Pharmacology

Compounds:

- Water-soluble polysaccharide in particular arabinogalactons.
- Glycoproteins
- Quinolizidine alkaloids: including cytosine, N-methylcytisine , anagrine, sparteine.
- Iisoflavonoids: for mononetin and their glycosides baptisin, pseudobaptisin, triforlirhizin
- Hydroxycumarins: scopletine.

Effect:

The ethanol extract has positive effect on the phagocytosis of human erythrocytes, leucocytosis and immunostimulation. wild indigo has a mild estrogenic effect. It increases kupffeŕs cells phagocytosis, lymphocytosis and release of interleukin-1 macrophages. The drug is conteraindicated during pregnancy

Adverse reaction:

- No health hazards or side effects are known in conjunction with proper administration of designated therapeutic dosages.
- Very high doses e.g. 30 gm lead to signs of poisoning (vomiting, diarrhea, gastrointestinal complaints, spasms) due to the quinolizidine alkaloid content

Dosages:

It is taken in combination preparations as a tea and tincture and externally as an ointment
Supplies as: drops, injection, liquid (1:1 and 1:2 with or without alcohol), suppositories and tablets.
The ocintment is prepared 1 part liquid extract to 8 parts ointment base. A tincture may be prepared using the liquid extract in 60% alcohol 1:1

Dose: 0.5-1 g of dried drug as decoction 3 times daily, 5-10 drops, one tablet or 5-10 globules 1 to 3 times daily or 1 ml s.c. injection twice weekly

Rauwolfia

- Name: Rauwolfia serpentina
- Common trade names:
- Common dosage forms:

Rauwolfia is available in whole; crude and poweder form for internal and external use. It is also available in solid pharmaceutical form and in compounded preparations.

- Source:

- The plant is indigenous to India, Indochina, Borneo, Sri Lanka and Sumatra.
- The drug is derived from wild collection in India, Pakistan, Thailand, and Indonesia.
- **Medicinal parts:** the dried root.
- **Flower and fruit:** white to pink flowers in terminal or axillary cymes that have a diameter of 2.5 to 5 cm and are 5 to 13 cm long in main axis, the corolla tube is 11 to 19 cm long, which form a plate like margin. The fruit is bilabiate drupe, which is purple black when ripe.
- **Leaves, Stem and Root:** the plant is an erect, glabrous evergreen semi shrub 0.5 to 1 m in height. The trunk is pale and unbranched. The leaves are concentrated toward the top of the trunk and are entire margined. They are in whorls of 3 to 5 and occasionally opposite. The leaves are 7 to 18 cm long, 2.5 to 5 cm wide, oblong-ovate or lanceolate and taper to an irregular base. The petiole is 5 to 15 cm long. The rhizome is vertical and woody; the root is gray-brown with a wrinkled surface and is 3 to 22 mm in diameter.
- **Characteristics:** the fresh root has a very bitter, unpleasant taste.

- Chemical constituents:

Ajmalane – type: including ajmaline

Heteroyohimbane – type: including serpentinine, serpentine, raubasine, ajmalicine

Indole alkaloids (1 to 2.5%)

Sarpagan – type: including raupine, sarpagine

Starch

Yohimbine – type: including reserpine, isorauhimbine, resainnamine, reserpine.

- Pharmacokinetics:

- pharmacological action: the drug contains alkaloids of the Rauwolfia type. Reserpine and other alkaloids in the root have a sympatholytic effect by releasing noradrenalin and inhibiting its resorption in the vesicles of the noradrenergic nerve ends. This which causes a hypotensive effect. The ajmalin in the root has an antiarrhythmic effect brought about by membrane stabilization. In animal experiments a centrally generated sedative effect was demonstrated.

- Reported uses:

Hypertension

Nervousness and insomnia

Rauwolfia is used internally for hypertension due to vascular hypertonia it is also useful for anxiety and tension states and other psychomotor disorders.

Unproven uses: Rauwolfia is also used in folk medicine for flatulence, vomiting, insomnia, eclampsia, and liver disease. It is used to encourage uterine contraction during birth, and is used locally in the treatment of wounds.

Indian medicine: the drug is used as an antidote for snakebites and the poisonous bites for other reptiles; also for hypertension, dysuria, fever, colic, and in the treatment of wounds.

- Dose, route of administration:

available in whole, crude and powder form for internal and external] use. Rauwolfia serpentina dry extract contains 7% total alkaloids. Daily dosage: 600 mg drug /6 mg total alkaloids.

- Special consideration: the drug should be protected from light.

- Adverse reactions: nasal congestion, states of depression, tiredness, erectile dysfunction. The drug may cause drowsiness.

- Pregnancy and lactation:

Not to be used during pregnancy

Not to be used while breast-feeding

- Interactions:

Alcohol: considerably increases the impairment of reactions.

Neuroleptics and barbiturates: increase in drug effect

Digitalis: severe bradycardia

Levodopa: drug-effect is reduced.

- Contraindication: Rauwolfia is contraindicated in depression, ulceration, pheochromocytoma, pregnancy and lactation.

- Remarks:

- References:

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Lounasmaa M etal., on the structure of the indole alkaloid ajmalicidine. In PM 60(5): 480. 1994

Rosa canina

- **Name:** Rosa canina, Dog rose, Birer Hip, Rose Hip, Sweet Briar, Brier Rose, Eglantine Gall, Hog seed, Dog-Berry, Sweet Berry, Wild Brier, Witches, Brier
- **Common trade names**
- **Common dosage forms:**
  Dog rose fruits are available as whole and powdered drug.
  Dog rose shells are available as whole, crude and powdered drug.
- **Source:** Rosa canina grows in Europe and North Africa and is extensively cultivated

. - **Medicinal parts:** the penals, the Rose hips with and without seeds and the seeds

- **Flower and fruit:** the pink flowers are usually solitary or in clusters of 2 or 3. The resptacle deepens to form a cup, the upper edge of which house the 5 pinnatifid sepols, 5 petals, and numerous stamens. There are long white silky hairs in the receptacles and numerous ovaries. The ovaries grow into stiff-haired nuts surrounded by the receptacle and become the scarlet "rosehip".
- leaves, stem and root: the plant is an approximately 1 to 3 m high shrub with hanging branches and erect root shoots that are covered in tough, sickle-shaped prickles that are appressed below. The leaves are pinnatifid with 5 to 7 leaflets. They are markedly petiolate, obovate, smooth margined glabrous, glossy, and dark green above, highter and simple-seorate beneath.

- **Characteristics:** the sepals revolute at the end of the flowering period and drop when the fruit ripens.

Chemical constituents:

Fruits:
- Fatty oil: 8 - 10%
- Tocopherol (vitamin E)
- Volatile oil 0.3%
- Proteic substances

Shells:
- Carotinoids
- Flavenoids
- Monosaccharides/oligosaccharides 12 – 15%
- Pectins
- Tannins
- Ascorbic acid (Vitamin C) 0.2 – 2.4%

- Pharmacokinetics:

- Pharmacological action:

Dog rose fruits: the pectin and fruit aad content are responsible for the diuretic and laxative effect

Dog rose shells: a vitamiv C supplement

- Reported uses:

Fruits: Unproven uses**:** in folk medicine for disorders of the efferent urinary tract and the kidney, kidney stones, rheumatic conditions gout, colds, scurvy, and febrile conditions.

Shells: unproven uses: in folk medicine for colds, intestinal conditions, digestive complaints, Vit. C. deficiency, gallstones, subacidic stomach, infectious diseases, conditions of the efferent urinary tract, edema, gout, bleeding, and leukorrhea.

- Dose, route of administration:

Fruits: the single dose is 29 drugs orally.

Shells: tea: 2 to 5 g drug added to 1 cup and steeped for 10 to 15 minutes.

- Special consideration:

Fruits: should be stored in a dry and dark place

Shells: should be stored in dark places.

- Adverse reactions: No health hazards or adverse effects are know in conjunction with the proper administration or designated dosage

- Pregnancy and lactation: No reports

- Contraindication: No reports

- References:

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