small intestine. The ß-glycosides are prodrugs that are neither absorbed nor cleaved in the upper gastrointestinal tract. They are degraded in the colon by bacterial enzymes to rheinanthrone. Rheinanthrone is the laxative metabolite. The systemic availability of rheinanthrone is very low. Animal experiments revealed that less than 5 percent is passed in the urine in the oxidized form and/or in conjugated form as rhein and sennodine. The major amount of rheinanthrone (more than 90 percent) is bound to the feces in the colon and excreted as polymers.

Active metabolites, such as rhein, infiltrate in small amounts into the milk ducts. A laxative effect on nursing infants has not been observed. The placental permeability for rhein is very small, as was observed in animals.

Drug preparations have a higher general toxicity than the pure glycosides, presumably due to the content of aglycones. Experiments with senna leaf preparations are not available. A senna extract showed mutagenic toxicity in vitro; the pure substance, sennoside A, B, was negative. An in vivo study with a defined extract of senna fruit revealed no mutagenicity. Preparations with an anthranoid content of 1.4 - 3.5 percent were used (calculated as the sum of specific individual compounds) that were potentially equivalent to 0.9 - 2.9 percent rhein, 0.05 - 0.15 percent aloe-emodin and 0.001 - 0.006 percent emodin. The results appear to be also applicable for specific senna leaf preparations. Some positive results have been observed for aloe-emodin and emodin. A study for carcinogenicity was performed with an enriched sennoside fraction containing about 40.8 percent anthranoids, of which 35 percent were sennosides (calculated as sum of the individually determined compounds), equivalent to about 25.2 percent of the calculated potential rhein, 2.3 percent potential aloe-emodin and 0.007 percent potential emodin. The tested substance contained 142 ppm free aloe-emodin and 9 ppm free emodin. The study was conducted over 104 weeks. Rats received up to 25 mg/kg body weight and showed no substance-dependent increase of tumors.

Clinical Data

1. Uses

Constipation.

2. Contraindications

Intestinal obstruction, acute intestinal inflammation, e.g., Crohn's disease, colitis ulcerosa, appendicitis, abdominal pain of unknown origin. Children under 12 years of age.

3. Side Effects

In single incidents, cramp-like discomforts of the gastrointestinal tract. These cases require a dosage reduction.

With chronic use or abuse:

Disturbance of electrolyte balance, especially potassium deficiency, albuminuria and hematuria. Pigment implantation into the intestinal mucosa (*pseudomelanosis coli*) is harmless and usually reverses on discontinuation of the drug. Potassium deficiency can lead to disorders of heart function and muscular weakness, especially with concurrent use of cardiac glycosides, diuretics, and corticosteroids.

4. Special Caution for Use

Stimulating laxatives must not be used over a long period (more than 1 - 2 weeks) without medical advice.

5. Use During Pregnancy and Lactation

During the first trimester of pregnancy, senna pod preparations should be used only if a therapeutic effect cannot be obtained with a change in diet or through

the use of swelling laxatives. Active metabolites, such as rhein, infiltrate into the milk ducts. A laxative effect on nursing infants has not been observed.

6. Interactions with Other Drugs

In cases of chronic use or abuse, loss of potassium may potentiate cardiac glycosides and have an effect on antiarrhythmic medications. Potassium deficiency may be exacerbated by simultaneous administration of thiazide diuretics, corticosteroids, or licorice root.

7. Dosage and Administration

Comminuted herb, powder or dried extracts for teas, decoctions, cold macerates, or elixirs. Liquid or solid forms of medication exclusively for oral use.

Unless otherwise prescribed:

20 - 30 mg hydroxyanthracene derivatives daily, calculated as sennoside B.

The individually correct dosage is the smallest dose necessary to maintain a soft stool.

Note: The form of administration should be smaller than the daily dose.

8. Overdosage

Electrolyte and fluid imbalance.

9. Special Warnings

Use of a stimulating laxative for longer than the recommended period can cause intestinal sluggishness.

This preparation should be used only if no effects can be obtained through changes in diet or use of bulk-forming products.

10. Effects on Operators of Vehicles and Machinery

None known.

Shepherd's Purse

Bursae pastoris herba

Hirtentäschelkraut

Published September 18, 1986; Revised March 13, 1990

Name of Drug

Bursae pastoris herba, shepherd's purse herb.

Composition of Drug

Shepherd's purse herb consists of the fresh or dried, above-ground parts of *Capsella bursa pastoris* (L.) Medikus [Fam. Brassicaceae], as well as its preparations in effective dosage.

Uses

Internal:

Symptomatic treatment of mild menorrhagia and metrorrhagia, topical application for nose bleeds.

External:

Superficial, bleeding skin injuries.

Contraindications

None known.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
10 - 15 g of drug;
equivalent preparations.
Topical use:
3 - 5 g of herb per ¾ cup of water as tea.
Fluidextract (according to *Erg. B. 6*):
Daily dosage: 5 - 8 g.

Mode of Administration
Comminuted drug for tea and other galenical preparations for internal use and external application.

Actions
Parenteral application only:
Muscarine-like effects with dose-dependent lowering and elevation of blood pressure;
Positive inotropic and chronotropic cardiac effects;
Increased uterine contraction.

Soapwort root, Red
Saponariae rubrae radix
Rote Seifenwurzel
Published April 27, 1989

Name of Drug
Saponariae rubrae radix, red soapwort root.

Composition of Drug
Red soapwort root consists of the dried root, rhizome, and runner of *Saponaria officinalis* L. [Fam. Caryophyllaceae], as well as its preparations in effective dosage. The root contains saponins.

Uses
Catarrhs of the upper respiratory tract.

Contraindications
None known.

Side Effects
In rare cases, stomach irritation.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Daily dosage:
1.5 g root or equivalent preparations.

Mode of Administration
Comminuted herb for teas and other galenical preparations for internal use.

Actions
Expectorant by irritation of the gastric mucosa
Cytotoxic, in high concentrations

Soapwort root, White

Gypsophilae radix
Weiße Seifenwurzel
Published June 1, 1990

Name of Drug
Gypsophilae radix, white soapwort root.

Composition of Drug
White soapwort root consists of the dried, underground parts of *Gypsophila* species, particularly *Gypsophila paniculata* L., [Fam. Caryophyllaceae], as well as preparations in effective dosage.

The drug contains saponins.

Uses
Catarrhs of the upper respiratory tract.

Contraindications
None known.

Side Effects
In rare cases irritation of the gastric mucosa.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Daily dosage:
30 - 150 mg drug;
3 - 15 mg gypsophila saponin;
equivalent preparations.

Mode of Administration
Ground herb for teas, gypsophila saponin and other galenical preparations for internal use.

Actions
Irritates mucous membranes
In high dosage, cytotoxic

Soy Lecithin

Lecithinum ex soya
Sojalecithin
Published May 5, 1988

Name of Drug
Lecithinum ex soya, soy lecithin

Composition of Drug
Soy lecithin consists of the phospholipids extracted from the seeds of *Glycine max* (L.) Merrill [Fam. Fabaceae], as well as preparations thereof in effective dosage.

Soy lecithin contains (3-sn-phosphatidyl)choline, phosphatidyl ethanolamine and phosphatidyl-inositol.

Uses
Moderate disturbances of fat metabolism, especially hypercholesterolemia if dietary measures are not sufficient.

Contraindications
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
Total phospholipids in their natural mixture composition corresponding to 3.5 g (3-sn-phosphatidyl)choline.

Mode of Administration
Preparations from soy beans for oral intake.

Action
Lipid-lowering.

Soy Phospholipid with 73 - 79% (3-sn phosphatidyl)-cholin

Phospholipide aus Sojabohnen mit 73 - 79% (3-sn Phosphatidyl)-cholin

Phosphalipide aus Sojahohnen

Published July 19, 1994

Composition of Drug
Lecithinum ex soja, lecithin from soybean, extracted from *Glycine max* (L.) Merrill [Fam. Fabaceae], enriched extract with 73 - 79 percent 3-sn-phosphatidylcholine. The extract also includes:
Phosphatidylethanolamine max. 7 percent,
Phosphatidylinositic acid <0.5 percent,
Oil 2 - 6 percent,
Vitamin E 0.2 - 0.5 percent.
The given range includes both production and analytical variances.

Pharmacological Properties, Pharmacokinetics, Toxicology
Lecithin extract from soybeans consists on the average of 76 percent phosphatidylcholine and almost entirely of phosphoglycerides, of which the fatty acid linoleic acid predominates. The quota of phospholipids, which are the chief constituents of cell membrane, are in major part obtained by eating (0.5 - 3 g/day from food) and in lesser degree from synthesis by the liver.

A deficiency in phospholipids is the inevitable result of chronic parenteric nutrition.

Under pharmacodynamic characteristics are "hepatoprotective" effects in numerous experimental models, e.g., protection against ethanol, alkyl alcohols, tetrachlorides, paracetamol and galactosamine. Furthermore, in chronic models (ethanol, thioacetamide, organic solvents), there appears a defense against steatosis and fibrosis of the liver. The compound works by speeding regeneration and stabilization of membranes, stopping lipid peroxidation and, it is assumed, by collagen synthesis.

The pharmacokinetics of orally administered lecithin have been examined in animal studies in which the phosphatidylcholine was radioactively marked, the marking on a fatty acid in position 1 or position 2, choline, or a phosphorous. The respective marker substitutions show the pharmacokinetics. Phospholipids are degraded to lyso-phosphatidylcholine in the intestine and absorbed primarily in this form. In the gut wall phospholipids are in part re-synthesized, then circulated

through the lymphatic system. In part the resynthesized phosphatidylcholine is processed in the liver to form fatty acids, choline, and glycerine-3-phosphate. In plasma, phosphatidylcholine and other phosphoglycerides are tightly bound to lipoproteins and/or albumin.

Phosphatidylcholine and other phosphoglycerides are degraded chiefly through a series of so-called phospholipases to fatty acids, choline and "glycerin" metabolites to be in turn re-synthesized in the liver and other organs. The administered metabolites in large part may be integrated within a few hours into body phospholipids. Their removal corresponds to the excretion of phospholipids and their corresponding metabolites.

Toxicology

Doses of phosphatidylcholine of up to 10 g/kg body weight in mice and rats and 4.5 g/kg body weight in rabbits given intravenously, intraperitoneally, and orally in a single dose are not toxic. The "no-effect" dosage over 48 weeks administration to rats lies upward of 3750 mg/kg body weight per day. Repeated i.v. application over 12 weeks places the lowest systemic toxic dosage between 0.1 and 1 g/kg body weight and lowest local toxic dosage at over 1 g/kg body weight in rats, and application over 4 weeks to dogs places the lowest toxic dosage at more than 0.1 g/kg body weight in dogs.

Doses of up to 3750 mg/kg body weight in pregnant animals, animal embryos, and animal neonates showed no pathology of toxicity to reproduction. The lowest teratogenic or embryo-toxic dosage in rats in oral and intravenous administration was more than 1 g/kg body weight. In rabbits teratogenic dosages were greater than 1 g/kg body weight for oral administration and greater than 0.5 g/kg body weight in intravenous administration. Various in vitro tests cannot demonstrate any mutagenic potential. Carcinogenicity has not been tested.

Clinical Data

1. Uses

Less severe forms of hypercholesterolemia in which diet and other non-medical interventions (e.g., exercise program, weight control) have not shown results.

Improvement of subjective complaints, such as loss of appetite and feeling of pressure in region of liver in toxic/ nutritional liver disease and chronic hepatitis. Prerequisite to the therapy of chronic liver disease is the recognition and avoidance of noxious agents – in the case of alcoholic liver disease, alcohol abstinence. In chronic hepatitis adjuvant therapy with phospholipids of soybeans is only indicated when improvement of symptoms is discernible from other therapy.

2. Contraindications

None known.

3. Side Effects

Occasional gastrointestinal effects, i.e., stomach pain, loose stool, and diarrhea.

4. Special Caution for Use

None.

5. Use During Pregnancy and Lactation

None.

6. Interactions with Other Drugs

None known.

7. Dosage and Mode of Administration

Unless otherwise prescribed:

Daily dosage:

1.5 - 2.7 g phospholipids from soybean with 73 - 79 percent 3-sn-phosphatidylcholine in a single dose.

8. Overdosage
Not known.

9. Special Precautions
None.

10. Effects on Operators of Vehicles and Machinery
None.

Spiny Restharrow root

Ononidis radix

Hauhechelwurzel

Published April 23, 1987; Revised March 13, 1990

Name of Drug
Ononidis radix, spiny restharrow root

Composition of Drug
Spiny restharrow root consists of the dried roots and rhizomes of *Ononis spinosa* L. [Fam. Fabaceae], harvested in autumn, as well as their preparations in effective dosage.

The drug contains isoflavonoids, such as ononin, flavonoids and small amounts of essential oil.

Uses
Irrigation therapy for inflammatory diseases of the lower urinary tract. Also for prevention and treatment of kidney gravel.

Contraindications
None known.

Note: No irrigation therapy in case of edema due to impaired heart and kidney function.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:

Daily dosage:

6 - 12 g of drug;

equivalent preparations.

Mode of Administration
Comminuted herb for teas and other galenical preparations for internal use.

Warning: Observe ample fluid intake.

Action
Diuretic

Squill

Scillae bulbus

Meerzwiebel

Published August 21, 1985; Revised March 2, 1989

Name of Drug

Scillae bulbus, squill, sea onion.

Composition of Drug

Squill consists of the sliced, dried, fleshy middle scales of the onion of the white variety of *Urginea maritima* (L.) Baker [Fam. Liliaceae], harvested at flowering season, as well as their preparations in effective dosage.

Squill contains glycosides of the bufadienolide type. Main glycosides are scillaren A and proscillaridin A, flavonoids and anthocyanins.

Uses

Milder cases of heart insufficiency, also for diminished kidney capacity.

Contraindications

Therapy with digitalis glycosides, potassium deficiency.

Side Effects

Nausea, vomiting, stomach disorders, diarrhea, irregular pulse.

Interactions with Other Drugs

Increase of effectiveness and thus also of side effects by simultaneous administration of quinidine, calcium, saluretics, laxatives and extended therapy with glucocorticoids.

Dosage

Unless otherwise prescribed:

Average daily dosage:

0.1 - 0.5 g of standardized sea onion; powder;

equivalent preparations.

Mode of Administration

Comminuted drug and other galenical preparations for internal use.

Actions

Positively inotropic on myocardial work capacity

Negatively chronotropic

"Economizing" heart action

Lowering increased, left ventricular diastolic pressure and pathologically elevated venous pressure.

St. John's Wort

Hyperici herba

Johanniskraut

Published December 5, 1984; Revised March 13, 1990

Name of Drug

Hyperici herba, St. John's Wort.

Composition of Drug

St. John's Wort consists of the dried, above-ground parts of *Hypericum perforatum*

L. [Fam. Hypericaceae], gathered during flowering season, as well as their preparations in effective dosage.

Uses

Internal:

Psychovegetative disturbances, depressive moods, anxiety and/or nervous unrest. Oily hypericum preparations for dyspeptic complaints.

External:

Oily hypericum preparations for treatment and post-therapy of acute and contused injuries, myalgia and first-degree burns.

Contraindications

None known.

Side Effects

Photosensitization is possible, especially in fair-skinned individuals.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Average daily dosage for internal use:

2 - 4 g of drug or 0.2 - 1 mg of total hypericin in other forms of drug application.

Mode of Administration

Chopped herb, herb powder, liquid and solid preparations for internal use. Liquid and semi-solid preparations for external use. Preparations made with fatty oils for external and internal use.

Actions

A mild antidepressant action of the herb and its preparations has been observed and reported by numerous physicians. According to experimental observation, hypericin can be categorized among the MAO inhibitors. Oily hypericum preparations demonstrate an antiinflammatory action.

[**Ed. note:** The research suggesting MAO activity was experimental and not conducted in animal systems. Subsequent research has indicated either no or very slight MAO activity in St. John's Wort or its preparations.]

Star Anise seed

Anisi stellati fructus

Sternanis

Published July 6, 1988

Name of Drug

Anisi stellati fructus, star anise.

Composition of Drug

Star anise consists of the ripe syncarp of *Illicium verum* Hooker filius [Fam. Illiciaceae], as well as its preparations in effective dosage.

The drug contains essential oil.

Uses

Catarrhs of the respiratory tract, peptic discomforts.

Contraindications

None known.

Side Effects

None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
3 g of drug or 0.3 g essential oil; equivalent preparations.

Mode of Administration
Herb ground fresh just prior to use, and other galenical preparations for internal use.

Actions
Bronchial expectorant
Antispasmodic for gastrointestinal tract

Stinging Nettle herb and leaf

Urticae herba/-folium
Brennesselkraut/Brennesselblätter
Published April 23, 1987

Name of Drug
Urticae herba, stinging nettle herb.
Urticae folium, stinging nettle leaf.

Composition of Drug
Stinging nettle herb consists of fresh or dried above-ground parts of *Urtica dioica* L., *U. urens* L. [Fam. Urticaceae], and/or hybrids of these species, collected during flowering season, as well as their preparations in effective dosage.

Stinging nettle leaf consists of fresh or dried leaves of *U. dioica* L., *U. urens* L. and/or hybrids of these species, gathered during flowering season, as well as their preparations in effective dosage.

Stinging nettle leaf and herb contain mineral salts, mainly calcium and potassium salts, and silicic acid.

Uses
Internal and external application:
As supportive therapy for rheumatic ailments.
Internal:
As irrigation therapy for inflammatory diseases of the lower urinary tract and prevention and treatment of kidney gravel.

Contraindications
None known.
Note: No irrigation therapy if edema exists due to impaired heart or kidney function.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
8 - 12 g of drug;
equivalent preparations.

Mode of Administration
Comminuted herb for teas and other galenical preparations for internal use, as stinging nettle spirit for external application.
Note: In irrigation therapy, intake of copious amounts of fluids must be observed.

Stinging Nettle root

Urticae radix

Brennesselwurzel

Published September 18, 1986

Revised March 2, 1989, March 13, 1990, and January 17, 1991

Name of Drug

Urticae radix, nettle root, stinging nettle root.

Composition of Drug

Stinging nettle root consists of the underground parts of *Urtica dioica* L., *U. urens* L. and/or their hybrids [Fam. Urticaceae] as well as preparations from nettle root at an effective dose.

The drug contains ß-sitosterol in free forms and as glycosides, as well as scopoletin.

Uses

Difficulty in urination in benign prostatic hyperplasia stages 1 and 2.

Contraindications

None known.

Side Effects

Occasionally, mild gastrointestinal upsets.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Daily dose:

4 - 6 g of drug;

equivalent preparations.

Mode of Administration

Comminuted drug for infusions as well as other galenical preparations for oral use.

Actions

Increase of urinary volume

Increase of maximum urinary flow

Reduction of residual urine

Note: This drug only relieves the symptoms of an enlarged prostate without reducing the enlargement. Please consult a physician at regular intervals.

Sundew

Droserae herba

Sonnentaukraut

Published May 12, 1984

Name of Drug

Droserae herba, round-leafed sundew.

Composition of Drug

Sundew consist of the dried above- and below-ground parts of *Drosera rotundifolia* L., *D. ramentacea* Burch ex Harv. et Sound., *D. longifolia* L. p.p. and *D. interme-*

dia Hayne [Fam. Droseraceae], as well as their preparations in effective dosage.

The herb contains 0.14 - 0.22 percent naphthoquinone derivatives calculated as juglone in respect to the dry mass of the herb.

Uses
For coughing fits and dry cough.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
3 g of herb.

Mode of Administration
Liquid and solid preparations for external and internal application.

Actions
Bronchoantispasmodic
Antitussive

Sweet Clover
Meliloti herba
Steinkleekraut
Published March 13, 1986; Revised March 13, 1990

Name of Drug
Meliloti herba, sweet clover, yellow melilot.

Composition of Drug
Sweet clover consists of the dried or fresh leaf and flowering branches of *Melilotus officinalis* (L.) Pallas and/or M. *altissimus* Thuillier [Fam. Fabaceae], as well as their preparations in effective dosage.

The herb contains 5,6-benzo-pyrone (coumarin).

Other ingredients are 3,4-dihydro-coumarin (melilotin), o-coumaric acid, the glycoside melilotoside and flavonoids.

Uses
Internal:
Problems arising from chronic venous insufficiency, such as pain and heaviness in legs, night cramps in the legs, itching, and swelling. For the supportive treatment of thrombophlebitis, post-thrombotic syndromes, hemorrhoids, and lymphatic congestion.
External:
Contusions and superficial effusions of blood.

Contraindications
None known.

Side Effects
In rare cases headaches.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
Herb or preparation in amounts corresponding to 3 - 30 mg coumarin;
Parenteral application corresponding to 1 - 7.5 mg coumarin.
The effective dosage for sweet clover preparations in fixed combinations must be documented for each specific preparation.

Mode of Administration
Comminuted herb for infusions and other galenical preparations for oral use.
Liquid forms of medication for parenteral application.
Ointments, liniments, cataplasms and herbal sachets for external use.
Ointments and suppositories for rectal use.

Actions
Anti-edematous for inflammatory and congestive edema by increase of venous reflux and improvement of lymphatic kinetics.
Animal experiments showed an increase in healing wounds.

Thyme
Thymi herba
Thymiankraut
Published December 5, 1984; Revised March 13, 1990, and December 2, 1992

Name of Drug
Thymi herba, thyme.

Composition of Drug
Thyme is constituted of the stripped and dried leaves and flowers of *Thymus vulgaris* L., *T. zygis* L. [Fam. Lamiaceae], or both species as well as their preparations in effective dosage.
The herb contains at least 0.5 percent phenols, calculated as thymol ($C_{10}H_{14}O$, MW=150.2) based on the dried herb.

Uses
Symptoms of bronchitis and whooping cough.
Catarrhs of the upper respiratory tracts.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
1 - 2 g of herb for 1 cup of tea, several times a day as needed;
1 - 2 g fluidextract 1 - 3 times daily;
5 percent infusion for compresses.

Mode of Administration
Cut herb, powder, liquid extract or dry extract for infusions and other galenical preparations. Liquid and solid medicinal forms for internal and external application.
Note: Combinations with other herbs that have expectorant action could be appropriate.

Actions
Bronchoantispasmodic
Expectorant
Antibacterial

Thyme, Wild

Serpylli herba
Quendelkraut
Published October 15, 1987; Revised March 13, 1990

Name of Drug
Serpylli herba, wild thyme.

Composition of Drug
Wild thyme consists of the dried, flowering, above-ground parts of *Thymus serpyllum* L. [Fam. Lamiaceae], as well as its preparations in effective dosage.

The drug contains essential oil, principally carvacrol and/or thymol.

Uses
Catarrhs of the upper respiratory tract.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dose:
6 g of herb;
equivalent preparations.

Mode of Administration
Cut herb for infusions and other preparations for internal use.

Action
Antimicrobial

[**Ed. note:** Commercially, *Thymus pulegioides* L. and *T. praecox* Opiz subsp. *arcticus* (Dur.) Jalas are also offered as and mixed with *T. serpyllum* L.]

Tolu Balsam

Balsamum tolutanum
Tolubalsam
Published September 18, 1986

Name of Drug
Balsamum tolutanum, tolu balsam, balsam tolu.

Composition of Drug
Tolu balsam consists of the balsam generated from the slit tree trunks of *Myroxylon*

balsamum (L.) var. *balsamum* Harms (syn. *M. balsamum* var. *genuinum)* (Baill.) (Harms) [Fam. Fabaceae] as well as its preparations in effective dosage. This balsam is purified by melting, straining, and solidifying.

Tolu balsam contains benzoic and cinnamic acids, as well as their esters and essential oils.

Uses
Catarrhs of the respiratory tract.

Contraindications
None known.

Side Effects
None known.

Interaction with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
0.6 g of herb;
equivalent preparations.

Mode of Administration
Preparations of tolu balsam for internal use.

Tormentil root

Tormentillae rhizoma
Tormentillwurzelstock
Published May 5, 1988; Revised March 13, 1990

Name of Drug
Tormentillae rhizoma, tormentil root

Composition of Drug
Tormentil root consists of the dried rhizome taken from the root of *Potentilla erecta* (L.) Raüschel (synonym: *P. tormentilla* Necker) [Fam. Rosaceae] and preparations thereof.

Uses
Unspecified diarrhea disorders; mild mucous membrane inflammations of the mouth and pharynx.

Contraindications
None known.

Side Effects
Stomach complaints in sensitive subjects.

Interaction with Other Drugs
None known.

Dosage
When not otherwise prescribed:
average daily dose:
4 - 6 g of the drug;
equivalent preparations.
Tormentil tincture:
10 - 20 drops to one glass of water daily to rinse out the mouth and throat.

Mode of Administration
Crushed drug for boiling and infusing, as well as in other galenical preparations to be taken orally and applied locally.

Duration of Administration
Should the diarrhea last more than 3 - 4 days, a physician should be consulted.

Turmeric root

Curcumae longae rhizoma

Curcumawurzelstock

Published November 30, 1985; Revised September 1, 1990

Name of Drug

Curcumae longae rhizoma, turmeric root.

Composition of Drug

Turmeric root consists of the finger-like, often tuber-like, scalded and dried rhizomes of *Curcuma longa* L. (syn. *C. domestica* Valeton and *C. aromatica* Salisbury) [Fam. Zingiberaceae], and their preparations in effective dosage.

The drug contains not less than 3 percent dicinnamoylmethane derivatives, calculated as curcumin, and not less than 3 percent volatile oil, both calculated on a dry-weight basis of the drug.

Uses

Dyspeptic conditions.

Contraindications

Obstruction of bile passages. In case of gallstones, use only after consulting with a physician.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:
Average daily dosage:
1.5 - 3 g of drug;
equivalent preparations.

Mode of Administration

Comminuted drug, as well as other galenical preparations for internal use.

Actions

The choleretic action of curcumin is experimentally well documented. Further indications exist for a cholecystokinetic and a clear antiinflammatory action.

Turmeric root, Javanese

Curcumae xanthorrhizae rhizoma

Javanische Gelbwurz

Published July 6, 1988; Revised September 1, 1990

Name of Drug

Curcumae xanthorrhizae rhizoma, Javanese turmeric.

Composition of Drug

Javanese turmeric consists of the sliced, dried, tuberous rhizomes of *Curcuma xanth-*

orrhiza Roxburgh (syn. *Curcuma xanthorrhiza* D. Dietrich) [Fam. Zingiberaceae], as well as its preparations in effective dosage.

The rhizome contains essential oil and dicinnamoylmethane derivatives.

Uses
Peptic disorders.

Contraindications
Obstruction of bile ducts, gallstones. In case of gallstone, use only after consultation with a physician.

Side Effects
After prolonged use, stomach problems.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Average daily dosage:
2 g of rhizome;
equivalent preparations.

Mode of Administration
The crushed drug for infusions and other galenical forms for internal use.

Action
Choleretic

Turpentine oil, Purified
Terebinthinae aetheroleum rectificatum
Gereinigtes Terpentinöl
Published May 15, 1985; Revised March 13, 1990

Name of Drug
Terebinthinae aetheroleum rectificatum, purified turpentine oil.

Composition of Drug
Purified turpentine oil is the essential oil obtained from the turpentine of *Pinus* species, especially *P. palustris* Miller (syn. *P. australis* Michaux filius), and *P. pinaster* Aiton [Fam. Pinaceae].

Uses
External and internal:
Chronic disease of the bronchii with heavy secretion.
External:
Rheumatic and neuralgic ailments.

Contraindications
Sensitivity to essential oils.
Inhalation:
Acute inflammation of the respiratory tract.

Side Effects
Topical application to extensive surface areas can cause symptoms of poisoning, e.g., damage to kidneys and the central nervous system.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
For inhalation:
several drops in hot water with the vapors to be inhaled.
For external application:
several drops to be rubbed onto the affected area, in liquid and semi-solid preparations 10 - 50 percent.

Mode of Administration
Semi-solid preparations in the form of ointments, gels, emulsion, and oils, and as plaster and inhalant.

Actions
Hyperemic
Antiseptic
Reduces bronchial secretion

Usnea

Usnea species
Bartflechten
Published April 27, 1989

Name of Drug
Usnea species, usnea.

Composition of Drug
Usnea consists of the dried thallus of *Usnea* species, primarily of *U. barbata* (L.) Wiggers emend. Mot., *U. florida* (L.) Fries, *U. hirta* (L.) Hoffmann and *U. plicata* (L.) Fries [Fam. Usneaceae], as well as preparations of *Usnea* in effective dosage.

The herb contains lichenic acid.

Uses
Mild inflammations of the oral and pharyngeal mucosa.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:

Lozenges with preparations equivalent to 100 mg herb, 3 - 6 times daily, 1 lozenge.

Mode of Administration
Preparations of herb for lozenges and equivalent solid forms of medication.

Action
Antimicrobial

Uva Ursi leaf

Uvae ursi folium
Bärentraubenblätter
Published June 15, 1994

Name of Drug
Uvae ursi folium, uva ursi leaf, bearberry.

Composition of Drug
Uva ursi (bearberry) leaves, consisting of the dried leaves of *Arctostaphylos uva ursi* (L.) Sprengel [Fam. Ericaceae] and pharmaceutical preparations thereof.

Pharmacological Characteristics, Pharmacokinetics, Toxicology

Preparations made from bearberries act antibacterially in vitro against *Proteus vulgaris, E. coli, Ureaplasma urealyticum, Mycoplasma hominis, Staphylococcus aureus, Pseudomonas aerginosa,* Friedländer's pneumonia, *Enterococcus faecalis,* and *Streptococcus* strains, as well as against *Candida albicans.* The antimicrobial effect is associated with the aglycone hydroquinone released from arbutin (transport form) or arbutin waste products in the alkaline urine. A methanol extract of the drug (50 percent) is said to have an inhibiting effect on tyrosinase activity. The forming of melanin from DOPA using tyrosinase as well as from DOPA-CHROM through auto-oxidation is also said to be inhibited by the drug.

There are indications that after uva ursi tea (3 g/150 ml) has been taken, hydroquinone glucuronides occur predominately alongside low levels of hydroquinone.

Clinical Data

1. Uses

Inflammatory disorders of the efferent urinary tract.

2. Contraindications

Pregnancy, lactation, children under 12.

3. Side Effects

Nausea and vomiting may occur in persons with sensitive stomachs.

4. Special Caution for Use

None known.

5. Use During Pregnancy and Lactation

Should not be administered during pregnancy.

The occurrence of arbutin/hydroquinone in the breast milk has not been researched. The drug, therefore, should not be administered during lactation.

6. Interaction with Other Drugs

Uva ursi preparations should not be administered with any substances which cause acidic urine since this reduces the antibacterial effect.

7. Dosage and Mode of Administration

Unless otherwise prescribed:

Single dose:

3 g drug to 150 ml water as an infusion or cold maceration or 100 - 210 mg hydroquinone derivatives, calculated as water-free arbutin.

Daily dose:

3 g drug to 150 ml water as an infusion or cold maceration up to 4 times a day or 400 - 840 mg hydroquinone derivatives calculated as water-free arbutin.

Mode of Administration

Crushed drug.

Drug powder for infusions or cold macerations; extracts and solid forms for oral administration.

Duration of Treatment

Medication containing arbutin should not be taken for longer than a week or more than five times a year without consulting a physician.

8. Overdosage

None known.

9. Special Precautions

None known.

10. Effects on Operators of Vehicles and Machinery

None known.

Uzara root

Uzarae radix

Uzarawurzel

Published September 1, 1990

Name of Drug

Uzarae radix, uzara root.

Composition of Drug

Uzara root consists of the dried, underground parts of 2 - 3 year-old plants of *Xysmalobium undulatum* (L.) R. Brown [Fam. Asclepiadaceae], as well as their preparations in effective dosage.

The drug contains glycosides with cardenolide structure.

Uses

Nonspecific, acute diarrhea.

Contraindications

Therapy with cardiac glycosides.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Adults:

Initial single dosage:
preparations equivalent to 1 g herb or 75 mg total glycosides.

Daily dosage:
equivalent to 45 - 90 mg of total glycosides, calculated as uzarin.

Mode of Administration

Ethanol-water extracts in liquid form, or as dry extracts obtained from methanol-water extractions for internal use.

Duration of Administration

If diarrhea persists for more than 3 - 4 days, consult a physician.

Actions

Inhibits intestinal motility

In high dosage, digitalis-like effects on the heart.

Valerian root

Valerianae radix

Baldrianwurzel

Published May 15, 1985; Revised March 13, 1990

Name of Drug

Valerianae radix, valerian root.

Composition of Drug

Valerian root, consisting of fresh underground plant parts, or parts carefully dried below 40°C, of the species *Valeriana officinalis* L. [Fam. Valerianaceae], and its preparations in effective dosage.

The roots contain essential oil with monoterpenes and sesquiterpenes

(valerenic acids). Preparations of valerian used therapeutically (infusion, extract, fluidextract, tincture) no longer contain the thermolabile and chemically unstable valepotriates.

Uses
Restlessness, sleeping disorders based on nervous conditions.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Infusions:
2 - 3 g of drug per cup,
once to several times per day.
Tincture:
½ - 1 teaspoon (1 - 3 ml),
once to several times per day.
Extracts:
Amount equivalent to 2 - 3 g of drug,
once to several times per day.
External Use:
100 g for one full bath;
equivalent preparations.

Mode of Administration
Internal:
As expressed juice from fresh plants, tincture, extracts, and other galenical preparations.
External:
As a bath additive.

Actions
Sedative
Sleep-promoting

Walnut leaf
Juglandis folium
Walnußblätter
Published June 1, 1990

Name of Drug
Juglandis folium, walnut leaf.

Composition of Drug
Walnut leaf consists of the dried leaf of *Juglans regia* L. [Fam. Juglandaceae], as well as its preparations in effective dosage.
The drug contains tannins.

Uses
External:
Mild, superficial inflammations of the skin; excessive perspiration, e.g., of the hands and feet.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
For compresses and partial baths:
2 - 3 g herb per 100 ml water;
equivalent preparations.

Mode of Administration
Comminuted drug for decoctions and other galenical preparations for external use.

Action
Astringent

Watercress
Nasturtii herba
Brunnenkressekraut
Published February 1, 1990

Name of Drug
Nasturtii herba, watercress.

Composition of Drug
Watercress consists of the fresh or dried, above-ground parts of *Nasturtium officinale* R. Brown [Fam. Brassicaceae], as well as their preparations in effective dosage.

The herb contains mustard glycosides and mustard oil.

Uses
Catarrh of respiratory tract.

Contraindications
Gastric and intestinal ulcers, inflammatory kidney diseases.

No application for children under the age of four.

Side Effects
In rare cases, gastrointestinal complaints.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Daily dosage:
4 - 6 g dried herb;
20 - 30 g fresh herb;
60 - 150 g freshly pressed juice;
equivalent preparations.

Mode of Administration
Cut herb, freshly pressed juice, as well as other galenical preparations for internal use.

White Dead Nettle flower
Lamii albi flos
Weiße Taubnesselblüten
Published April 23, 1987

Name of Drug
Lamii albi flos, white dead nettle flower.

Composition of Drug
White dead nettle flower consists of the dried petal with attached stamens of

Lamium album L. [Fam. Lamiaceae], as well as its preparations in effective dosage.

The flowers contain tannin, mucilage and saponins.

Uses

Internally, for catarrh of the upper respiratory passages, topical treatment of mild inflammation of the mucous membranes of the mouth and throat, and for non-specific fluor albus (leukorrhea).

Externally, for mild, superficial inflammation of the skin.

Contraindications

None known.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Internal:

Average daily dosage:

3 g of drug.

External:

5 g of flowers for one sitz bath; equivalent preparations.

Mode of Administration

Flowers for teas and other galenical preparations for internal applications, rinses, baths and moist compresses.

White Mustard seed

Sinapis albae semen

Weiße Senfsamen

Published February 1, 1990

Name of Drug

Sinapis albae semen, white mustard seed.

Composition of Drug

White mustard seed consists of the ripe, dried seed of *Sinapis alba* L. [Fam. Brassicaceae], as well as its preparations in effective dosage.

White mustard seeds contain mustard oil glycosides and mustard oils.

Uses

External:

Poultices for catarrhs of the respiratory tract, as well as for segment therapy of chronic degenerative diseases affecting the joints and soft tissues.

Contraindications

No applications for children under the age of six.

Note: Since mustard oils are absorbed by the skin, these preparations should not be used when kidney disorders exist.

Side Effects

Prolonged application may result in skin and nerve damage.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

External:

Just prior to application, mix 4 table-

spoons of powdered seeds with warm water for a poultice.

Mode of Administration
External: Ground or powdered seeds for poultices. The poultices are applied for 5 - 10 minutes to children, 10 - 15 minutes to adults.

For sensitive skin, the application time must be decreased on an individual basis.

Duration of Administration
Up to 2 weeks.

Actions
Irritating to the skin
Bacteriostatic

White Willow bark

Salicis cortex
Weidenrinde
Published May 12, 1984

Name of Drug
Salicis cortex, white willow bark.

Composition of Drug
White willow bark consists of the bark of the young, 2- 3-year-old branches harvested during early spring of *Salix alba* L., *S. purpurea* L., *S. fragilis* L. and other comparable *Salix* species [Salicaceae], as well as their preparations in effective dosage. The bark contains at least 1 percent total salicin derivatives, calculated as salicin ($C_{13}H_{18}O_7$, MW 286.3) and related to the dried herb.

Uses
Diseases accompanied by fever, rheumatic ailments, headaches.

Contraindications
See **Interactions with Other Drugs**

Side Effects
See **Interactions with Other Drugs**

Interactions with Other Drugs
Because of white willow bark's active constituents, interactions like those encountered with salicylates may arise. However, in reviewing the scientific literature available so far, there are no definite indications for this.

Dosage
Unless otherwise prescribed:

Average daily dosage corresponding to 60 - 120 mg total salicin.

Mode of Administration
Liquid and solid preparations for internal use.
Note: Combinations with diaphoretic drugs could be considered.

Actions
Antipyretic
Antiphlogistic
Analgesic

Witch Hazel leaf and bark

Hamamelidis folium et cortex

Hamamelisblätter und-rinde

Published August 21, 1985; Revised March 13, 1990

Name of Drug

Hamamelidis folium, witch hazel leaf.
Hamamelidis cortex, witch hazel bark.

Composition of Drug

Witch hazel leaf consists of the dried leaf of *Hamamelis virginiana* L. [Fam. Hamamelidaceae], as well as its preparations in effective dosage.

The drug contains 3 - 8 percent tannin, mainly gallotannins. Other ingredients are flavonoids and essential oil.

Witch hazel bark consists of the dried bark of the trunk and branches of *H. virginiana* L., as well as its preparations in effective dosage.

The drug contains at least 4 percent tannins. Characteristic ingredients of witch hazel bark are ß-hamamelitannin and γ-hamamelitannin, the depside ellagitannin, catechin derivatives, and free gallic acid.

Fresh leaf and twigs of *H. virginiana* L., consists of leaves and twigs collected in spring and early summer for the production of water distillates.

Uses

Minor injuries of skin, local inflammation of skin and mucous membranes. Hemorrhoids. Varicose veins.

Contraindications

None known.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

External:

Water steam distillate (witch hazel water) undiluted or diluted 1:3 with water;

For poultices, 20 - 30 percent in semi-solid preparations.

Extract preparations:

Semi-solid and liquid preparations, corresponding to 5 - 10 percent drug.

Drug:

Decoctions of 5 - 10 g of herb per cup (250 ml) of water for compresses and irrigations.

Internal use (mucous membranes):

Suppositories:

1 - 3 times daily, the amount of a preparation corresponding to 0.1 - 1 g drug to be applied 1 - 3 times a day.

Other preparations:

Several times daily, corresponding to 0.1 - 1 g drug in preparations, or witch hazel water undiluted or diluted with water.

Mode of Administration

Witch hazel leaves and bark:

Cut drug or extracts for internal and external use.

Fresh leaves and bark of *Hamamelis*:

Steam distillate for internal and external use.

Actions

Astringent
Antiinflammatory
Locally hemostatic

Woody Nightshade stem

Dulcamarae stipites

Bittersüßstengel

Published June 1, 1990

Name of Drug

Dulcamarae stipites, woody nightshade.

Composition of Drug

Woody nightshade consists of the dried, 2 - 3-year-old stems of *Solanum dulcamara* L. [Fam. Solanaceae], harvested in spring prior to leafing or late autumn after leaves have dropped, as well as its preparations in effective dosage.

The drug contains tannins, steroid alkaloids and steroid saponins.

Uses

As supportive therapy for chronic eczema.

Contraindications

None known.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Internal:

Daily dosage:

1 - 3 g of drug;

equivalent preparations.

External:

Infusions or decoctions equivalent to 1 - 2 g of drug per 250 ml (1 cup) of water.

Mode of Administration

Comminuted herb for teas and other galenical preparations for internal use, and for compresses and rinses.

Actions

Astringent

Antimicrobial

Irritative to mucous membranes

Steroid alkaloid: Anticholinergic

Solasodin: Antiphlogistic

Wormwood

Absinthii herba

Wermutkraut

Published December 5, 1984

Name of Drug

Absinthii herba, wormwood.

Composition of Drug

Wormwood consists of the fresh or dried upper shoots and leaves, or the fresh or dried basal leaves, or a mixture of the above plant parts from *Artemisia absinthium* L. [Fam. Asteraceae], harvested during flowering season, as well as its preparations in effective dosage. The herb contains at least 0.3 percent (v/w) volatile oil and has

a bitter value of not less than 15,000. The volatile oil contains thujone. Additionally, the herb contains bitter principles of the sesquiterpene lactone type such as absinthin, anabsinthin, artabsin, anabsin, also flavones, ascorbic acid, and tannins.

Uses
Loss of appetite, dyspepsia, biliary dyskinesia.

Contraindications
None known.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Daily dosage:
2 - 3 g of herb as water infusion.

Mode of Administration
Cut herb for infusions and decoctions, herb powder, also extracts and tinctures as liquid or solid forms of medication for oral administration.
Warning: Combinations with other bitters or aromatics may be advantageous. In toxic doses, thujone, the active component of the oil, acts as a convulsant poison. Therefore, the essential oil must not be used except in combinations.

Action
The effectiveness as an aromatic bitter is based on the bitter principles and volatile oil. Useful experimental pharmacological data of recent years are not available.

Yarrow
Millefolii herba/flos
Schafgarbe
Published February 1, 1990

Name of Drug
Millefolii herba, yarrow herb.
Millefolii flos, yarrow flower.

Composition of Drug
Yarrow herb consists of the fresh or dried, above-ground parts of *Achillea millefolium* L. [Fam. Asteraceae], harvested at flowering season, as well as its preparations in effective dosage.

Yarrow flower consists of the dried inflorescence of *A. millefolium* L. *s.l.* [Fam. Asteraceae], as well as its preparations in effective dosage.

The drug contains essential oil and proazulene.

Uses
Internal:
Loss of appetite, dyspeptic ailments, such as mild, spastic discomforts of the gastrointestinal tract.
As sitz bath:
Painful, cramp-like conditions of psychosomatic origin (in the lower part of the female pelvis).

Contraindications
Allergy to yarrow and other composites.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Daily dosage:
4.5 g yarrow herb;
3 tsp. pressed juice from fresh plants;
3 g yarrow flowers;
equivalent preparations.
For sitz baths:
100 g yarrow per 20 l (5 gal.) of water.

Mode of Administration
Comminuted drug for teas and other galenical preparations for internal use and for sitz baths, pressed juice of fresh plants for internal use.

Actions
Choleretic
Antibacterial
Astringent
Antispasmodic

Yeast, Brewer's
Faex medicinalis
Medizinische Hefe
Published May 5, 1988

Name of Drug
Faex medicinalis, medicinal yeast.

Composition of Drug
Medicinal yeast consists of fresh or dried cells of *Saccharomyces cerevisiae* Meyer [Fam. Saccharomycetaceae] and/or of *Candida utilis* (Hennenberg) Rodden et Kreyer Van Rey [Fam. Cryptococcaceae], as well as their preparations in effective dosage.

Medicinal yeast contains vitamins, particularly B complex, glucans and mannans.

Uses
Loss of appetite and as a supplement for chronic forms of acne and furunculosis.

Contraindications
None known.

Side Effects
Migraine-like headaches can occur in sensitive individuals. The intake of fermentable yeast may cause flatulence.

Interactions with Other Drugs
None known.
Note: Simultaneous intake of monoamine oxidase inhibitors can cause an increase in blood pressure.

Dosage
Unless other prescribed:
Average daily dosage:
6 g;
equivalent preparations.

Mode of Administration
Medicinal yeast and galenical preparations for internal use.

Actions
Antibacterial
Stimulation of phagocytosis

Yeast, Brewer's/Hansen CBS 5926

Saccharomyces cerevisiae Hansen CBS 5926
Trokenhefe aus Saccharomyces cerevisiae Hansen CBS 5926
Published April 15, 1994

Constituents of Drug

Brewer's yeast from *Saccharomyces cerevisiae* Hansen CBS 5926 (syn. *S. boulardii*) [Fam. Saccharomycetaceae] and genetically identical strains in lyophilized form. One gram of the lyophilisate contains 885 mg *S. cerevisiae* Hansen CBS 5926 corresponding to 1 times 1010 viable organisms.

Pharmacological Properties, Pharmacokinetetics, Toxicology

The effectiveness of brewer's yeast depends on the viability of the organism.

Brewer's yeast can bind fimbriated, pathogenic bacteria. In vitro, growth inhibition was demonstrated by co-culturing brewer's yeast with the following organisms: *Proteus mirabilis* and *vulgaris*, *Salmonella typhi* and *typhimurium*, *Pseudomonas aeruginosa*, *Staphyloccus aureus*, *Escherichia coli*, certain *Shigella* and *Candida albicans*. Concentration dependencies for growth inhibitions were not given. Brewer's yeast can also inhibit the growth of *Clostridium difficile*, as well as the diarrhea-causing effect of enterotoxic strains of *E. coli*. On the isolated intestinal loop model, sodium and water influx into the intestinal lumen was induced by incubation with the toxin from the cholera vibrio; this reaction was reduced by 40 percent in the presence of brewer's yeast. Intestinal preparations were also employed to show the reversal of the increased chloride transport induced by prostaglandins E2 and I2 in the presence of brewer's yeast as compared to untreated controls.

An increase in the activity of the disaccharidases saccharidase, lactase, and maltase, which are located in the intestinal membrane, was observed in animal experiments, as well as in humans. In animal experiments, the secretory immunoglobulin (sIgA) was increased in the gastrointestinal tract after oral intake of brewer's yeast.

With a single oral dosage of 3 g/kg body weight of brewer's yeast, no toxic reactions were observed in mice and rats. No substance-dependent changes were observed with a dosage of 330 mg/kg body weight over 6 weeks (6 days/week) given to dogs, and about 100 mg/kg body weight given daily over 6 months to rats and rabbits. The Ames test with *Salmonella typhimurium* TA 90, TA 100, TA 1335, TA 1337, and TA 1338 revealed no mutagenic effects, with or without activation of SY-mix. Experiments for embryocytic and carcinogenic effects are not available.

Clinical Data

1. Indications

For symptomatic treatment of acute diarrhea.

For prophylactic and symptomatic treatment of diarrhea during travel and diarrhea occurring while tube feeding. As an adjuvant for chronic forms of acne.

2. Contraindications

Not to be used in case of yeast allergies.
Warning: infants and small children are excluded from self-medication in any case.

3. Side Effects

Oral intake may cause flatulence.

In individual cases, intolerance (incompatibilities) may occur in the form of itching, urticaria, local or general exanthemas, and Quincke's edema.

4. Special Precaution for Usage

In case of diarrhea, replacement of fluids and electrolytes is an important therapeutic measure, especially for children. Diarrhea of infants and small children requires consultation with a physician.

Diarrheas lasting longer than 2 days, containing blood, or accompanied by fever, require medical attention.

If during therapy with brewer's yeast microbiological tests are performed on stool samples, the intake of yeast must be reported to the laboratory, since false positive results may be reported.

5. Usage During Pregnancy and Lactation

No data available.

6. Interaction with Other Drugs

The simultaneous intake of brewer's yeast and antimycotics can influence the activity of brewer's yeast.

Warning: Simultaneous intake of MAO-inhibitors may cause increased blood pressure.

7. Dosage and Mode of Administration

Unless otherwise prescribed:

Daily dosage (children older than 2 years/adults):

For prevention of travel diarrhea, beginning 5 days prior to journey:
250 - 500 mg daily.

For therapy of diarrhea:
250 - 500 mg daily.

For diarrhea due to tube feeding:
add 500 mg brewer's yeast/liter of nutrient solution.

Suggestion: The treatment should be continued for several days after diarrhea has ceased.

For acne:
750 mg daily.

Mode of Administration

Lyophylisate in capsules for internal use as well as addition to tubal feed mixtures.

8. Overdosage

None known.

9. Special Warnings

None known.

10. Effects on Operators of Vehicles and Machinery

None known.

Chapter 3

Approved Component Characteristics

Cajeput oil

Cajeputi aetheroleum

Cajeputöl

Published July 14, 1993

Name of Drug

Cajeputi aetheroleum, cajeput oil.

Composition of Drug

Cajeput oil consists of the essential oil from the fresh leaf and branch tops of various species of *Melaleuca leucodendra* L. [Fam. Myrtaceae], obtained by water distillation, as well as preparations thereof in effective dosage.

Pharmacological Properties, Pharmacokinetics, Toxicology

In vitro antimicrobial, hyperemic.

Clinical Data

1. Combination Partner in the Following Herb Combinations

1. Cajeput oil, peppermint oil, clove oil, menthol, camphor.
2. Cajeput oil, peppermint oil, clove oil, eucalyptus oil.
3. Cajeput oil, sage oil, clove oil, eucalyptus oil.
4. Cajeput oil, clove oil, eucalyptus oil.
5. Cajeput oil, peppermint oil, eucalyptus oil.
6. Cajeput oil, rosemary oil, arnica tincture.
7. Cajeput oil, niauli oil (from *Melaleuca viridiflora*), peppermint oil, eucalyptus oil.
8. Cajeput oil, peppermint oil, eucalyptus oil.
9. Cajeput oil, eucalyptus oil.
10. Cajeput oil, dwarf pine oil, clove oil, juniper oil, peppermint oil, eucalyptus oil, wintergreen oil, menthol.
11. Cajeput oil, peppermint oil, eucalyptus oil, juniper oil, wintergreen oil.
12. Cajeput oil, peppermint oil, spearmint oil, eucalyptus oil, juniper oil, wintergreen oil, bergamot oil, star anise oil, cinnamon oil, pine needle oil.
13. Cajeput oil, peppermint oil, spearmint oil, eucalyptus oil, juniper oil, wintergreen oil, bergamot oil, star anise oil, cinnamon oil, pine needle oil.
14. Cajeput oil, St. John's Wort flower, dwarf pine oil, rosemary oil.
15. Cajeput oil, castor fiber, bitter tincture, cinchona bark, peppermint oil, caraway oil, valerian tincture, ethyl ether.
16. Cajeput oil, eucalyptus oil, menthol, clove oil, peppermint oil, juniper berry oil, cinnamon oil, lemon balm oil, wintergreen oil, star anise oil.
17. Cajeput oil, dwarf pine oil, rosemary oil, niauli oil, juniper berry oil, peppermint oil, eucalyptus oil.

18. Cajeput oil, camphor, menthol, rosemary oil, cayenne, methyl salicylate, benzyl nicotinate.
19. Cajeput oil, arnica herb, witch hazel leaf, niauli oil, peppermint oil, Peruvian balsam, eucalyptus oil, 2 homeopathic preparations.
20. Cajeput oil, spruce needle oil, rosemary oil, eucalyptus oil, purified turpentine.
21. Cajeput oil, thyme oil, dwarf pine oil, rosemary oil, Siberian fir oil, juniper berry oil, menthol, camphor, eucalyptus oil.
22. Cajeput oil, purified turpentine, camphor, 10 percent ammonia solution.
23. Cajeput oil, eucalyptus oil, Peruvian balsam, blackthorn fruits, 2 homeopathic preparations.
24. Cajeput oil, arbor vitae leaf oil, sassafras root oil, cognac oil, 1 homeopathic preparation.
25. Cajeput oil, arbor vitae leaf oil, sassafras root oil, concentrated Virginian juniper wood oil, sulfurated turpentine.
26. Cajeput oil, fennel oil, caraway oil, juniper berry oil, turpentine, laurel berry oil.
27. Cajeput oil, camphor, rosemary oil, spruce needle oil, turpentine, sage oil, methyl salicylate.
28. Cajeput oil, anise oil, lemon oil, eucalyptus oil, fennel oil, caraway oil, menthol, clove oil, peppermint oil, juniper berry oil, cinnamon oil, citronella oil, rosemary oil, dwarf pine oil, pine needle oil, thyme oil, wintergreen oil, garlic oil, bitter orange peel oil, sassafras root oil, dill oil, spearmint oil, convolvulus root oil.
29. Cajeput oil, juniper berry oil, rosemary oil, essential nutmeg oil, rosin, marjoram oil, fatty nutmeg oil, turpentine, rue oil, spruce resin, juniper wood oil, purified turpentine, laurel fruit oil, star anise oil.
30. Cajeput oil, anise oil, eucalyptus oil, clove oil, peppermint oil, juniper berry oil, cinnamon oil, citronella oil, rosemary oil, dwarf pine oil, sage oil, wintergreen oil.
31. Cajeput oil, anise oil, lemon oil, eucalyptus oil, fennel oil, glycerol, caraway oil, menthol, myrrh tincture, clove oil, peppermint oil, vanillin, cinnamon oil, thyme oil, sage oil, lemon balm oil.
32. Cajeput oil, camphor, 10 percent ammonia solution, sodium hydroxide, turpentine, cayenne, ceresin, potassium hydroxide.
33. Cajeput oil, camphor, eucalyptus oil, purified turpentine, rosemary oil, spruce needle oil, allantoin, sage oil, methyl salicylate, sodium pentadecyl sulfonate, chlorophyll nonoxinol, dodecylpoly (oxyethylene)-x-hydrogen sulfate.
34. Cajeput oil, aloe, myrrh gum, calendula flower, rosemary leaf, arnica leaf, Peruvian balsam, 1 homeopathic preparation.
35. Cajeput oil, camphor, aloe, myrrh gum, calendula flower, rosemary leaf, arnica flower, Peruvian balsam, 1 homeopathic preparation.
36. Cajeput oil, St. John's Wort, aloe, myrrh gum, calendula flower, rosemary leaf, arnica flower, Peruvian balsam, 1 homeopathic preparation.
37. Cajeput oil, purified turpentine, bitter orange flower oil, Chinese cinnamon oil, camphor, herb Robert (*Geranium robertianum*), St. John's Wort, galbanum gum, figwort herb, calendula herb, oak bark, mugwort herb, blue malva flower, goldenrod herb, pine sprouts.
38. Cajeput oil, pine needle oil, herb Robert, St. John's Wort, figwort herb, calendula herb, oak bark, mugwort, mallow flower, goldenrod herb, pine sprouts.
39. Cajeput oil, camphor, eucalyptus oil, menthol, purified turpentine, juniper berry oil, Siberian fir oil, rosemary oil, pine needle oil, thyme oil, pine sprouts.

40. Cajeput oil, camphor, eucalyptus oil, menthol, purified turpentine, juniper berry oil, Siberian fir oil, rosemary oil, pine needle oil, chlorophyll, pine sprouts, 1 homeopathic preparation.
41. Cajeput oil, niauli oil, sage oil, seven chemically defined components.
42. Cajeput oil, eucalyptus oil, camphor, menthol, thyme oil, niauli oil, rosemary oil, dwarf pine oil, spruce needle oil, fir oil, sage oil, arborvitae leaf oil, fir cone oil, spearmint oil, -cetyl stearyl-t-hydroxypoly-(oxyethylene)-12.
43. Cajeput oil, menthol, peppermint oil, spearmint oil, eucalyptus oil, juniper berry oil, wintergreen oil, bergamot oil, cinnamon oil, pine needle oil.

2. Claimed Uses for the Above-Named Combinations (by corresponding number)

1. Muscle and joint pain associated with rheumatic disease; also arthrosis, neuralgia, sciatica, lumbago, intervertebral disc and lower back problems, muscle strain, such as stiff neck, pain connected with sport injuries, such as sprains, contusions, strains, symptoms of cold, such as nasal catarrh, cough, sore throat, bronchial discomforts, itching due to insect bites, for sports massage.
2. For increased chance of infections, for catarrhal diseases, antiinflammatory, disinfectant, refreshing for sports massage.
3. For poorly healing and infected wounds, leg ulcers.
4. Hemorrhoids.
5. Internally for cough, hoarseness, congestion, gastric discomfort, flatulence. Externally for arthritis, lumbago, headaches.
6. Rheumatism of all origins, neuralgia, lumbago, sciatica, tendovaginitis, periostitis, epicondylitis.
7. Externally for catarrhal diseases, arthritis, neuralgia. Internally for spasms of the gastrointestinal tract and for helminthiasis.
8. Colds, nasal catarrhs, pain of nerves and limbs, lumbago, arthritis, first aid for toothache.
9. Protection for sore throat, nose and pharynx, improved blood supply for the respiratory system, soothing, calming.
10. Nervous headache, colds, nerve pain, neuralgia, nervous stomach, overexertion, exhaustion, flatulence, hematoma, intestinal catarrh, insect bites, calf cramps, toothache.
11. Cooling, calming, pain-relieving, promoting increased blood circulation, disinfectant for sprains, strains, contusions, dislocations, calf cramps, protection for insect bites.
12. Disinfectant for oral and pharyngeal cavity, for hoarseness, sore throat, cough, congestion.
13. Colds, cough, hoarseness, nasal catarrh, catarrh, headaches, exhaustion, abdominal and stomach pain of nervous origin, intestinal catarrh, nerve pain and neuralgia, rheumatic conditions, sprains, calf cramps, minor wounds, toothache.
14. Neuralgia, rheumatism, lumbago, sciatica, disorders of the vertebra, arthritis, arthrosis.
15. As a stomachic.
16. Internally for shortness of breath, for bronchial asthma (calming cough irritation, expectorant), cardiac asthma, for catarrhal diseases, disturbances of the digestive system, gastric spasms, flatulence. Externally for rheumatic discomforts, lumbago, migraine, and insect bites.
17. Headaches, nerve pain, influenza symptoms, fever, rheumatic pain, sciatica, lumbago, colds, cough, nasal catarrh, hoarseness.
18. Neuralgia, rheumatism, sciatica, lumbago.
19. Percutaneous liniment for catarrhal diseases of the respiratory tract, for arthritis, rheumatism, and insect bites.
20. Supportive treatment of circulatory disorders, for increased blood supply,

frostbite, for all forms of rheumatism.

21. Muscle rheumatism, joint rheumatism, pain in the limbs, sciatica, lumbago, insufficient blood supply, lower back pain, for all rheumatic diseases, muscle pain, back pain, shoulder pain, pain in the arms, tendonitis, stiffness of the joints, bruises, sprains.
22. Rheumatism, lumbago, sciatica, muscle and nerve pain, trigeminal neuralgia, inflammation of the joints, sprains, dislocations, contusions, hematoma.
23. Catarrh of the nasal mucosa, hypertrophy of the mucous membrane, hay fever (also prophylactic), as an adjuvant for ailments of the paranasal sinuses.
24. Any kind of skin disorder, eczema, fistulae, furuncles.
25. Dyscratic symptoms, "humoral disorders," rashes, psoriasis, eczema.
26. Flatulence and abdominal spasms.
27. Adjuvant to circulatory and metabolic disorders.
28. For prophylaxis of muscle soreness, before and after exertion in sport and work, during the season of increased danger of infections as a preventative for colds, for oral hygiene, for foot care before and after strenuous walking and extended standing, for promotion of blood circulation, for inhalation, mucolytic, prophylactic of the respiratory organs.
29. Rheumatic muscle and joint pain, tendovaginitis, sciatica, prophylaxis of phlebitis, sport injuries, massages for nerve pain.
30. Oral remedy: colds, cough, hoarseness, nasal catarrh, flu-like infections, nervous gastric discomfort, nausea, as a gargle for infections of the throat, as an inhalant for cough, hoarseness, nasal catarrh.
31. As a tonic for the nerves, for sensitivity to changes in the weather, fatigue, drowsiness and restlessness, after physical and mental exertion, for daily oral hygiene, for discomfort due to dentures, as prophylaxis for colds, for danger of infection, for hoarseness and voice care, for insect bites, for prevention of skin blemishes and athlete's foot, for promotion of physical resistance and daily fitness to variations in temperature, as a deodorant, for care of the muscles and sports massage, as support for the digestive process, as prophylaxis for gastrointestinal discomforts, such as feeling of fullness and bloating.
32. As hyperemic, segment therapy, pain of various origins, acute and chronic rheumatoid disorders, lumbago, arthritis, bronchitis, symptomatic for flu-like infections.
33. Supportive treatment for circulatory disorders, for increased blood supply, frostbite, for all types of rheumatism.
34. As a nourishing ointment for wounds, skin and healing, restoration of the skin and promotion to granulation.
35. Disc damage, brachialgia, osteochondritis, radiculitis, spondylitis, arthrosis deformans.
36. Arthritis, arthrosis, sciatica, neuralgia, rheumatism, strains, dislocations, bruises, contusions, muscle cramps after overexertion, periodontitis, gingivitis, furunculosis, sore throat, frostbite.
37. Metabolic hypofunction of the intestinal tract and tissues, intestinal sluggishness, wounds, gout, rheumatism, ulcerations, skin problems, frost impacts, myocardial insufficiency, muscular atrophy, dystrophic nervous disturbances.
38. Metabolic hypofunction of the intestinal tract and tissues, intestinal sluggishness, wounds, gout, rheumatism, ulcerations, skin problems, frostbite, myocardial insufficiency, muscular atrophy, dystrophic nervous disturbances.
39. As a liniment for rheumatic discomforts, pain in the limbs, painful strains, for migraine-like headaches, as an ointment and inhalant for cough and bronchitis.

40. Rheumatic pain of muscles and joints, sciatica, lumbago, strains, neuralgia, fatigue after sports exertion.
41. Infectious, allergic and atrophic diseases of the mucous membrane of the oral-pharyngeal cavity, nasal catarrh, hay fever, congestion and dry irritations of the nose, acute and chronic catarrhs.
42. Catarrhs of the upper respiratory tract, influenza-like infections, cough, acute and chronic catarrh, acute, chronic and spastic bronchitis, circulatory disturbances of the skin, frostbite, heavy and painful legs, discomforts of rheumatic origin, pain of the limbs and muscles, lumbago, nervous disorders, conditions of fatigue, psychogenic heart problems, headaches.
43. Cooling and ice-treatment for sports injuries without wounds, pain-relieving for contusions, muscle spasms, strains, cryotherapy for swellings, muscular pain, sprains, tendonitis (tennis elbow). Disorders of tendons, prevention of hematomas and secondary symptoms.

3. Contraindications

For infants and small children, cajeput preparations should not be applied in the facial areas, especially the nose.

Dosage and Mode of Administration

No data are available indicating the dosage for the drug in combination preparations. According to information in the literature, cajeput oil as a mono-preparation is used externally as a 5 percent alcohol solution. The dosage depends in each case on the contribution of the individual drugs in the respective combinations and must be documented specifically for each preparation.

Evaluation

Because of the cineol content and the documented experience for the use of the drug as a rubefacient, a qualitatively positive contribution to the effectiveness of the combinations for external use for rheumatic and neuralgic discomforts can be assumed. No information is available for internal use.

Nasturtium

Tropaeolum majus

Kapuzinerkresse

Published August 29, 1992

Composition of Drug

Nasturtium consists of the above-ground parts, seeds or leaf of *Tropaeolum majus* L. [Fam. Tropaeolaceae], as well as preparations thereof in effective dosage.

Pharmacological Properties, Pharmacokinetics, Toxicology

Benzyl mustard oil (benzyl isothiocyanate) obtained from *Tropaeolum majus* has, in vitro, a bacteriostatic, virustatic and antimycotic effect. Mustard oil is accumulated and excreted mainly in the respiratory and urinary tract.

External:

hyperemic.

Clinical Data

Recent medical and/or clinical reports are not available. Old clinical data show efficacy for urinary tract infection and catarrh of the upper respiratory tract.

1. Components of the Following Drug Combinations

a) Nasturtium herb, peppermint leaf, lady's mantle, couch grass, horsetail herb, dead nettle herb, meadowsweet, white dead nettle flower, alpine lady's mantle, white clover flower.

b) Nasturtium herb, peppermint leaf, lady's mantle, couch grass, silver weed, calendula flower, agrimony leaf, common avens root, alpine plantain herb, alpine lady's mantle, bearswort.

c) Nasturtium herb, meadowsweet herb, silver weed, knotweed, *Ilex aquifolium* leaf, dead nettle herb, meadowsweet flower, white dead nettle flower, oat straw, cleavers herb.

d) Nasturtium herb, arnica flower, valerian root, chamomile, salvia leaf, thyme, mullein, yarrow, common avens root.

e) Nasturtium seed, dandelion herb and root, kava kava root, bryony root, rusty-leafed rhododendron leaf.

f) Nasturtium herb, dried yeast (*Saccharomyces bryonia*), echinacea herb and root, witch hazel leaf, night-blooming cereus, white cedar tips (arbor vitae), monk's hood herb, propolis.

g) Nasturtium herb, thyme, plantain herb, echinacea root, garden cress herb.

h) Nasturtium herb, *Brassica oleracea*, rosemary, St. John's Wort, watercress, dandelion, menthol, camphor, citronella oil.

i) Nasturtium seed, dandelion herb and root, kava kava root, bryonia root, mountain laurel leaf, marsh tea, bittersweet stems, rusty-leafed rhododendron leaf.

j) Nasturtium herb, horseradish root, horseradish root oil, myrrh gum, 1 homeopathic component.

k) Nasturtium herb, horsetail herb, birch leaf, squill, cocoa, Scotch broom herb, madder root, restharrow root, goldenrod herb, lovage root, saw palmetto fruit, guaiazulene.

l) Nasturtium, echinacea, 3 homeopathic components.

2. Claimed Uses of the Above Combinations

a) Strengthening female organs, improvement of weak conditions.

b) Increase in defense capacity for catarrhs, halting invading infections.

c) Care of sensitive urinary tract and bladder conditions.

d) As tea for mouthwashes for periodontal inflammation, canker, dental fistula, ulceration of the gums, toothache, trigeminal pain.

e) Attrition and degenerative manifestations of the joints, rheumatic arthritis and muscular inflammations, lumbago, muscular myogelosis and abnormal conditions of muscular tone.

f) Bacterial and thrush infections of the respiratory tract, infections of the lower urinary tract, cystitis, pyelonephritis, prostatitis, irritable bladder.

g) Bacterial and thrush infections of the respiratory tract, infections of the lower urinary tract, cystitis, pyelonephritis, prostatitis, irritable bladder, urethral catarrh.

h) Rheumatism, neuralgic diseases.

i) Chronic degenerative arthritis.

j) Influenza-like infections, inflammatory diseases of the tonsils, nose, paranasal sinus, tracheobronchitis, infections of the urinary tract.

k) Biological protection for influenza by increase of the individual immune reaction against infectious agents.

3. Contraindications

Not to be used for infants and small children.

Oral use:

gastric and intestinal ulcers, kidney diseases.

4. Side Effects

Nasturtium contains benzyl mustard oil (benzyl isothiocyanate). Benzyl mustard oil can cause skin and mucosal irritations. Used internally, gastrointestinal disorders may occur. One case of the occurrence of a transient, urticarial exanthem was reported after ingestion of mustard oil from nasturtium. Benzyl mustard oil acts as a contact allergen if applied to the skin.

5. Special Cautions for Use

None known.

6. Use During Pregnancy and Lactation

None known.

7. Interactions with Other Drugs

None known.

8. Dosage and Mode of Administration

In older studies, mono-preparations of extracts were applied in daily dosages equivalent to 3 times 14.4 mg benzyl mustard oil. The dosage for combinations depends on the contribution of the herb in the specific combination, which in each case must be documented.

9. Overdosage

Overdosing can cause albuminuria, which apparently is due to damage to the glomerulus and tubulus system.

10. Special Cautions

None known.

11. Effects on Operators of Vehicles and Machinery

None known.

Assessment

Based on the pharmacological properties, a qualitatively positive contribution to the effectiveness of combinations for supportive treatment of infections of the lower urinary tract, catarrhs of the respiratory system, as well as topical application for mild muscular pain can be assumed.

Chapter 4

Approved Fixed Combinations

Fixed Combinations of Angelica root, Gentian root, and Caraway seed

Published March 11, 1992

Name of Drug

Fixed combinations of angelica root, gentian root, and caraway seed.

Composition of Drug

Fixed combinations consisting of:

Angelica root with herb corresponding to the monograph published March 16, 1990;

Gentian root corresponding to the monograph published November 11, 1985;

Caraway seed corresponding to the monograph published December 14, 1989;

as well as their preparations in effective dosage.

Uses

Loss of appetite, peptic discomfort, such as sensation of fullness and flatulence, mild, spastic discomfort in the gastrointestinal area.

Contraindications

Gastric and duodenal ulcers.

Side Effects

Particularly predisposed individuals may occasionally experience headaches.

Furanocoumarin, contained in angelica root, renders the skin photosensitive and in combination with ultraviolet light can cause inflammation of the skin. Prolonged sun bathing and exposure to UV light, therefore, should be avoided during the course of therapy with angelica root.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Caraway must be present in the dosage given in its monograph.

Angelica root and gentian root must be at the concentration of 50 - 75 percent of the daily dosage given in the individual monographs.

Deviating dosages must be justified specifically for the preparation (e.g., comparison of bitter values).

Mode of Administration

Comminuted drug for tea and other bitter-tasting galenical preparations for oral use.

Action

A carminative action is documented for angelica root, gentian root, and caraway seed. Pharmacological experiments for the fixed combinations are not available.

Fixed Combinations of Angelica root, Gentian root, and Fennel

Published December 18, 1991

Name of Drug

Fixed combinations of angelica root, gentian root, and fennel.

Composition of Drug

Fixed combinations consisting of:

Angelica root corresponding to *B. Anz.* 101, June 1, 1990;
Gentian root corresponding to *B. Anz.* 223, November 30, 1985;
Fennel corresponding to *B. Anz.* 74, April 19, 1991;
and their preparations in effective dosage.

Uses

Loss of appetite; dyspeptic disorders, such as sensation of fullness and flatulence; mild, spastic disturbances of the gastrointestinal tract.

Contraindications

Gastric and duodenal ulcers.

Pregnancy:

Preparations other than teas and preparations with essential oil contents comparable to those of teas.

Side Effects

In individual cases, allergic reactions of the skin and respiratory tract. Occasionally, headaches.

Warning: Furanocoumarin contained in this preparation causes light-sensitivity of the skin and may lead to inflammation of the skin in combination with UV exposure. During use of this preparation, extended sun bathing and intensive UV radiation should be avoided.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Fennel must be present in the dosage recommended in the monograph. Angelica root and gentian root must be present at a concentration of 50 - 75 percent of the daily dosage recommended in the monographs for the individual herbs. Deviating dosages must be documented for the specific preparation (e.g., through comparison of bitter values).

Mode of Administration

Bitter-tasting galenical preparations for oral intake.

Duration of Use

Fennel preparations should not be used over extended periods of time (several weeks) without medical advice.

Actions

An appetite-stimulating action with increased gastric secretion has been documented for preparations of angelica root and gentian root. Fennel has a spasmolytic action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Angelica root, Gentian root and Bitter Orange peel

Published December 18, 1991

Name of Drug

Fixed combinations of angelica root, gentian root and bitter orange peel.

Composition of Drug

Fixed combinations consisting of:
Angelica root corresponding to *B. Anz.* 101, June 1, 1990;
Gentian root corresponding to *B. Anz.* 223, November 30, 1985;
Bitter Orange peel corresponding to *B. Anz.* 193, October 15, 1987;
and their preparations in effective dosage.

Uses

Loss of appetite; dyspeptic disorders, such as sensation of fullness and flatulence.

Contraindications

Gastric and duodenal ulcers.

Side Effects

Furanocoumarin contained in this preparation causes light-sensitivity of the skin and may lead to inflammation of the skin in combination with UV exposure. During use of angelica root, gentian root and bitter orange peel, or preparations thereof, extended sun bathing, and intensive UV radiation should be avoided.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:
The individual components of the combination must be present in amounts corresponding to 30 - 50 percent of the daily dosage indicated in the monographs for the individual herbs. Deviating dosages must be documented for the specific preparation (e.g., through comparison of bitter values).

Mode of Administration

Comminuted herbs and other bitter tasting preparations for oral use.

Actions

An appetite-stimulating action with increased gastric secretion has been documented for preparations of angelica root, gentian root and bitter orange peel. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Angelica root, Gentian root, and Wormwood

Published March 11, 1992

Name of Drug
Fixed combinations of angelica root, gentian root, and wormwood.

Composition of Drug
Fixed combinations consisting of:
- Angelica root with herb corresponding to the monograph published March 16, 1990;
- Gentian root corresponding to the monograph published November 11, 1985;
- Wormwood corresponding to the monograph published November 1, 1984;
- as well as their preparations in effective dosage.

Uses
Loss of appetite, peptic discomfort, such as sensation of fullness and flatulence.

Contraindications
Gastric and duodenal ulcers.

Side Effects
Furanocoumarin, contained in angelica root, renders the skin photosensitive and in combination with ultraviolet light can cause inflammation of the skin. Prolonged sun bathing and exposure to UV light, therefore, should be avoided during the course of therapy with angelica root.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
The single combination components must be at the concentration of 30 - 50 percent of the daily dosage given in the individual monographs. Deviating dosages must be justified specifically for the preparation (e.g., comparison of bitter values).

Mode of Administration
Comminuted drug for tea and other bitter-tasting galenical preparations for oral use.

Actions
Appetite-stimulating and gastric juice-secreting actions are documented for preparations of angelica root, gentian root, and wormwood herb. Pharmacological experiments for fixed combinations are not available.

Fixed Combinations of Angelica root, Gentian root, Wormwood, and Peppermint oil

Published December 18, 1991

Name of Drug

Fixed combinations of angelica root, gentian root, wormwood, and peppermint oil.

Constituents

Fixed combinations consisting of:

Angelica root corresponding to *B. Anz.* 101, June 1, 1990;
Gentian root corresponding to *B. Anz.* 223, November 30, 1985;
Wormwood corresponding to *B. Anz.* 228, December 5,1984;
Peppermint oil corresponding to *B. Anz.* 50, March 13, 1986;
and their preparations in effective dosage.

Uses

Loss of appetite; dyspeptic disorders, such as sensation of fullness and flatulence; mild, spastic discomfort of the gastrointestinal tract.

Contraindications

Gastric and duodenal ulcers. Obstruction of the biliary tract, gallbladder inflammation, severe liver damage. If suffering from gallstones, use only after consultation with a physician or pharmacist.

Side Effects

Sensitive patients may suffer from gastric discomfort. Furanocoumarin contained in this preparation causes light-sensitivity of the skin and may lead to inflammation of the skin in combination with UV exposure. During use of angelica root or preparations thereof, extended sun bathing and intensive UV radiation should be avoided.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Peppermint oil must be present at the amount given in the monograph. The other individual components of the combination must be present in amounts corresponding to 30 - 50 percent of the daily dosage indicated in the monographs for the individual herbs.

Deviating dosages must be documented for the specific preparation (e.g., through comparison of bitter values).

Mode of Administration

Comminuted drug, as well as essential oil and other bitter-tasting galenical preparations for oral intake.

Actions

An appetite-stimulating action with increased gastric secretion has been documented for preparations of angelica root, gentian root and wormwood. For peppermint leaves and Angelica root, a spasmolytic and carminative effect is known. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise oil, Fennel oil, and Caraway oil

Published August 13, 1991

Composition of Drug

Fixed combinations consisting of:

Anise oil corresponding to April 11, 1988 (*B. Anz.* p. 2943);
Fennel oil corresponding to March 11, 1991 (*B. Anz.* p. 2742);
Caraway oil corresponding to December 14, 1989 (*B. Anz.* 22a, February 1, 1990);
and their preparations in effective dosage.

Uses

Dyspeptic discomfort, especially with mild spasms of the gastrointestinal region, flatulence, and a sensation of fullness.

Contraindications

Oversensitivity to anise, fennel, or anethole. Pregnancy. Not to be used for infants and small children.

Side Effects

In individual cases, allergic reactions of the skin, respiratory tract, and gastrointestinal tract.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

The individual components of the combination must be present at 30 - 50 percent of the recommended daily dosage in the monographs for the individual herbs.

Mode of Administration

Essential oils and other galenical preparations for oral intake.

Duration of Use

Fennel preparations should not be taken over extended time periods (several weeks) without consultation with a physician or pharmacist.

Actions

A spasmolytic and antibacterial effect is documented for preparations of caraway oil, fennel oil, and anise oil. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise oil, Fennel oil, Licorice root, and Thyme

Published April 4, 1992; Revised September 9, 1992

Composition of Drug

Fixed combinations consisting of:
Anise oil corresponding to
B. Anz 122, July 6, 1988;
Fennel oil corresponding to
B. Anz 74, April 19, 1991;
Licorice root corresponding to
B. Anz 90, May 15, 1985;
Thyme according to
B. Anz 228, December 5, 1984;
and their preparations in effective dosage.

Uses

Colds and diseases of the upper respiratory tract with viscous phlegm.

Contraindications

For a daily dosage up to 100 mg glycyrrhizin:
Oversensitivity to anise and anethole. Pregnancy. Not to be used for infants and small children.

For a daily dosage of more than 100 mg glycyrrhizin:
Cholestatic liver diseases, liver cirrhosis, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy. Allergies to anise and anethole. Not to be used for infants and small children.

Side Effects

For a daily dosage up to 100 mg glycyrrhizin:
Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract.

For a daily dosage of more than 100 mg glycyrrhizin:
Extended use and higher dosages may cause mineralocorticoid effects in the form of sodium and water retention, potassium loss with hypertonia, edema and hypokalemia with muscular asthenia, and, in rare cases, myoglobinuria. Occasionally, allergic reactions of skin, respiratory tract, and gastrointestinal tract may occur.

Interactions with Other Drugs

For a daily dosage up to 100 mg glycyrrhizin:
None known.

For a dosage above 100 mg glycyrrhizin:
Loss of potassium can be increased through other drugs, e.g., thiazide and loop diuretics. Sensitivity to digitalis glycosides increased through loss of potassium.

Dosage

Unless otherwise prescribed:
The individual four components of the combination must be present at 25 - 40 percent of the recommended daily dosage in the monographs for the individual herbs.

Mode of Administration

Comminuted drug and essential oils, as well as galenical preparations for oral intake.

Duration of Use

Not longer than 4 - 6 weeks without medical advice.

Actions

The following actions are documented: a secretolytic effect for licorice root and fennel oil; an expectorant effect for licorice root, thyme, and anise oil; a bronchospasmolytic and antibacterial effect for thyme and anise oil. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise oil and Iceland moss

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Anise oil corresponding to
B. Anz. 122, July 6, 1988;
Iceland moss corresponding to
B. Anz. 43, March 2, 1989;
and their preparations in
effective dosage.

Uses

Catarrhs of the upper respiratory tract with dry cough.

Contraindications

Allergy to anise and anethole.

Side Effects

Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:
The individual components of the combination must be present at the recommended daily dosage in the monographs for the individual herbs.

Mode of Administration

Comminuted drug and essential oil, as well as galenical preparations for oral intake.

Actions

For preparations of anise oil, an expectorant action is documented; also, mild spasmolytic and antibacterial actions are documented. Iceland moss has a soothing effect and a mild antibacterial action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise oil, Primrose root, and Thyme

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Anise oil corresponding to
B. Anz. 122, July 6, 1988;
Primrose root corresponding to
B. Anz. 122, July 6, 1988;
Thyme herb corresponding to
B. Anz. 228, December 5, 1984;
and their preparations in
effective dosage.

Uses

Colds and diseases of the upper respiratory tract with viscous phlegm.

Contraindications

Oversensitivity to anise and anethole.

Side Effects
Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract. Individual cases of gastric discomfort and nausea may occur.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:

The individual components of the combination must correspond to 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Application
Comminuted drug and galenical preparations for oral intake.

Actions
An expectorant effect is documented for anise oil, primrose root, and thyme. In addition, anise oil and thyme have an antibacterial and bronchospasmolytic action. Primrose has a secretolytic action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise seed, Ivy leaf, Fennel seed, and Licorice root

Published April 4, 1992; Revised September 9, 1992

Composition of Drug
Fixed combinations consisting of:

Anise seed corresponding to *B. Anz.* 122, July 6, 1988;
Ivy leaf corresponding to *B. Anz.* 122, July 6, 1988;
Fennel seed corresponding to *B. Anz.* 74, April 19, 1991;
Licorice root corresponding to *B. Anz.* 90, May 15, 1985;
and their preparations in effective dosage.

Uses
Colds and diseases of the upper respiratory tract with viscous phlegm.

Contraindications
For a daily dosage up to 100 mg glycyrrhizin:

Oversensitivity to anise and anethole.
Pregnancy: Preparations other than teas and preparations with essential oil contents comparable to those of teas.

For a daily dosage of more than 100 mg glycyrrhizin:

Cholestatic liver diseases, liver cirrhosis, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy. Allergies to anise and anethole.

Side Effects
For a daily dosage up to 100 mg glycyrrhizin:

Occasionally allergic reactions of the skin, respiratory tract, or gastrointestinal tract.

For a daily dosage of more than 100 mg glycyrrhizin:

Extended use and higher dosages may cause mineralocorticoid effects in the form of sodium and water retention, potassium loss with hypertonia, edema, and hypokalemia with muscular asthenia, and in rare cases myoglobinuria. Occasionally, allergic reactions of the skin, respiratory tract, or gastrointestinal tract may occur.

Interactions with Other Drugs

For a daily dosage up to 100 mg glycyrrhizin:
None known.
For a dosage above 100 mg glycyrrhizin:
Loss of potassium can be increased through other drugs, e.g., thiazide and loop diuretics. Sensitivity to digitalis glycosides increased through loss of potassium.

Dosage

Unless otherwise prescribed:
The individual components of the combination must be present at 25 - 40 percent of the amounts recommended as daily dosage in the monographs for the individual herbs.

Mode of Administration

Preparations for oral intake.

Duration of Use

Not longer than 4 - 6 weeks without medical advice.

Actions

Licorice root has a secretolytic and expectorant effect, fennel is secretolytic, anise and ivy leaves are expectorant and spasmolytic; anise also has an antibacterial action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise seed, Marshmallow root, Eucalyptus oil, and Licorice root

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Anise seed corresponding to
B. Anz. 122, July 6, 1988;
Marshmallow root corresponding to
B. Anz. 43, March 2, 1989;
Eucalyptus oil corresponding to
B. Anz. 177a, September 24, 1986;
Licorice root corresponding to
B. Anz. 90, May 15, 1985;
and their preparations in effective dosage.

Uses

Colds and diseases of the upper respiratory tract with dry cough.

Contraindications

For a daily dosage up to 100 mg glycyrrhizin:
Oversensitivity to anise and anethole. Inflammatory diseases of the gastrointestinal tract and biliary tract; severe liver diseases.
For a daily dosage of more than 100 mg glycyrrhizin:
Cholestatic liver diseases, liver cirrhosis and other severe liver diseases, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy. Allergies to anise and anethole. Inflammatory diseases of the gastrointestinal tract and biliary tract.

Side Effects

For a daily dosage up to 100 mg glycyrrhizin:

Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract. In rare cases, gastric disturbances, nausea, and diarrhea may occur.

For a daily dosage of more than 100 mg glycyrrhizin:

Extended use and higher dosages may cause mineralocorticoid effects in the form of sodium and water retention, potassium loss with hypertonia, edema and hypokalemia with muscular asthenia, and in rare cases myoglobinuria. Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract may occur. In rare cases, gastric disturbances, nausea, and diarrhea may occur.

Interactions with Other Drugs

For a daily dosage up to 100 mg glycyrrhizin:

Eucalyptus oil causes the induction of the enzyme system in the liver responsible for the breakdown of foreign materials. The effect of other medications may, therefore, be reduced and/or shortened.

For a dosage above 100 mg glycyrrhizin:

Loss of potassium can be increased through other drugs, e.g., thiazide and loop diuretics. Sensitivity to digitalis glycosides is increased through loss of potassium. Eucalyptus oil causes the induction of the enzyme system in the liver responsible for the breakdown of foreign materials. The effect of other medications may, therefore, be reduced and/or shortened.

Warning: The absorption of other, simultaneously taken medications can be delayed.

Dosage

Unless otherwise prescribed:

Marshmallow must be at the concentration given in the monograph. Licorice root, eucalyptus oil, and anise must be present at 30 - 50 percent of the amounts recommended as daily dosage in the monographs for the individual herbs.

Mode of Administration

Comminuted drug and galenical preparations for oral intake.

Duration of Use

Not longer than 4 - 6 weeks without medical advice.

Actions

An expectorant action is documented for preparations of licorice root, eucalyptus oil, and anise. A secretolytic effect has been shown for licorice root, and a secretomotory action for eucalyptus oil. Anise has also an antibacterial action. Marshmallow has a soothing effect and inhibits in-vitro the mucociliary activity. In addition, anise and eucalyptus oil have a mild spasmolytic action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise seed, Marshmallow root, Iceland moss, and Licorice root

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Anise seed corresponding to
B. Anz. 122, July 6, 1988;
Marshmallow root corresponding to
B. Anz. 43, March 2, 1989;
Iceland moss corresponding to
B. Anz. 43, March 2, 1989;
Licorice root corresponding to
B. Anz. 90, May 15, 1985;
and their preparations in effective dosage.

Uses

Catarrhs of the upper respiratory tract with dry cough.

Contraindications

For a daily dosage up to 100 mg glycyrrhizin:
Oversensitivity to anise and anethole.
For a daily dosage of more than 100 mg glycyrrhizin:
Cholestatic liver diseases, liver cirrhosis, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy. Allergies to anise and anethole.

Side Effects

For a daily dosage up to 100 mg glycyrrhizin:
Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract.
For a daily dosage of more than 100 mg glycyrrhizin:
Extended use and higher dosages may cause mineralocorticoid effects in the form of sodium and water retention, potassium loss with hypertonia, edema, and hypokalemia with muscular asthenia, and, in rare cases, myoglobinuria.
Occasionally, allergic reactions of the skin, respiratory tract, and gastrointestinal tract may occur.

Interactions with Other Drugs

For a daily dosage up to 100 mg glycyrrhizin:
None known.
Warning: The absorption of other, simultaneously taken medications may be delayed.
For a dosage above 100 mg glycyrrhizin:
Loss of potassium can be increased through other drugs, e.g., thiazide and loop diuretics. Sensitivity to digitalis glycosides is increased through loss of potassium.
Warning: The absorption of other, simultaneously taken medications may be delayed.

Dosage

Unless otherwise prescribed:
Marshmallow and Iceland moss must each be at the concentration equivalent to 50 - 75 percent of the daily dosage given in the monographs for individual herbs. Also, licorice root and anise must be present at concentrations corresponding to 50 - 75 percent of the daily dosage recommended in the monographs for the individual herbs.

Mode of Administration

Comminuted drug and galenical preparations for oral intake.

Duration of Use

Not longer than 4 - 6 weeks without medical advice.

Actions

An expectorant action is documented for preparations of licorice root and anise. A secretolytic effect has been shown for licorice root. Anise also has an antibacterial and mildly spasmolytic action. Marshmallow and Iceland moss have a soothing effect; Iceland moss has, in addition, a mild antibacterial action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise seed, Marshmallow root, Primrose root, and Sundew

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Anise seed corresponding to
B. Anz. 122, July 6, 1988;
Marshmallow root corresponding to
B. Anz. 43, March 2, 1989;
Primrose root corresponding to
B. Anz. 122, July 6, 1988;
Sundew corresponding to
B. Anz. 228, December 5, 1984;
and their preparations in effective dosage.

Uses

Catarrhs of the upper respiratory tract with spastic, dry cough.

Contraindications

Allergy to anise and anethole.

Side Effects

Occasionally allergic reactions of the skin, respiratory tract, and gastrointestinal tract. Individual cases of gastric disorders and nausea may occur.

Interactions with Other Drugs

None known.

Warning: The absorption of other, simultaneously taken medications may be delayed.

Dosage

Unless otherwise prescribed:
Marshmallow and sundew herb must be at the concentration given in the monographs. The other components of the combination must be each equivalent to 50 - 75 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Administration

Comminuted drug and galenical preparations for oral intake.

Actions

For preparations of primrose root and anise an expectorant action is documented. Anise and sundew have, in addition, a spasmolytic effect. Primrose root is secretolytic, anise is antibacterial and sundew is antitussive. Marshmallow has a soothing effect and inhibits in-vitro mucociliary activity. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise seed, Fennel seed and Caraway seed

Published August 13, 1991

Composition of Drug

Fixed combinations consisting of:
Anise seed corresponding to April 11, 1988 (*B. Anz.* p. 2943);
Fennel seed corresponding to March 11, 1991 (*B. Anz.* p. 2742);
Caraway seed corresponding to December 14, 1989 (*B. Anz.* 22a, February 1, 1990);
and their preparations in effective dosage.

Uses

Dyspeptic discomfort, especially with mild spasms of the gastrointestinal region, flatulence, and a sensation of fullness.

Contraindications

Oversensitivity to anise, fennel, or anethole.
Pregnancy:
Preparations other than teas and preparations with essential oil contents comparable to those of teas.

Side Effects

In individual cases, allergic reactions of the skin, respiratory tract, and gastrointestinal tract.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:
The individual components of the combination must each be present at 30 - 55 percent of the amounts recommended as daily dosage in the monographs for the individual herbs.

Mode of Administration

Comminuted drug for teas and other galenical preparations for oral intake.

Duration of Use

Fennel preparations should not be taken over extended time periods (several weeks) without consultation with a physician or pharmacist.

Actions

A spasmolytic and antibacterial effect is documented for preparations of anise, fennel, and caraway. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Anise seed, Linden flower, and Thyme

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Anise seed corresponding to *B. Anz.* 122, July 6, 1988;
Linden flower corresponding to *B. Anz* 164, September 1, 1990;
Thyme corresponding to *B. Anz* 228, December 5, 1984;
and their preparations in effective dosage.

Uses
Catarrhs of the upper respiratory tract with dry cough.

Contraindications
Oversensitivity to anise and anethole.

Side Effects
Occasionally, allergic reactions of skin, respiratory tract, and gastrointestinal tract.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:

Linden flower must be present at the dosage given in the monograph. The other components of the combination must be present at 50 - 75 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Administration
Comminuted drug for teas and other galenical preparations for oral intake.

Actions
An expectorant, antibacterial, and mild spasmolytic effect is documented for preparations of anise seed and thyme. A diaphoretic action is documented for linden flower. Pharmacological tests for the effectiveness of the fixed combinations are not available.

Fixed Combinations of Birch leaf, Goldenrod, and Java tea

Published August 29, 1992

Name of Drug
Fixed combinations of birch leaf, goldenrod, and Java tea.

Composition of Drug
Fixed combinations consisting of:

Birch leaf corresponding to the monograph published March 13, 1986;

Goldenrod herb corresponding to the monograph published October 15, 1987;

Java tea corresponding to the monograph published March 13, 1986;

as well as their preparations in effective dosage.

Uses
For irrigation therapy of inflammatory diseases of the lower urinary tract, and for prophylaxis of kidney stones.

Contraindications
None known.

Note: No irrigation therapy in case of edema due to insufficient heart and kidney function.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:

The individual combination components must correspond to a concentration of 30 - 50 percent given as daily dosage in the monographs of the single drug.

Mode of Administration

For oral application, comminuted drug or extracts for tea.

Note: Copious intake of fluids must be observed.

Actions

A diuretic action is documented for birch leaf, goldenrod, and Java tea. Goldenrod and Java tea have also a mild antispasmodic action. In addition, goldenrod has an antiphlogistic effect. Pharmacological experiments for the fixed combinations are not available.

Fixed Combinations of Camphor, Eucalyptus oil, and Purified Turpentine oil

Published July 14, 1993

Name of Drug

Fixed combinations of camphor, eucalyptus oil, and purified turpentine oil.

Composition of Drug

Fixed combinations consisting of:

Camphor corresponding to publication of November 1, 1984 (*B. Anz.* p. 13326);

Eucalyptus oil corresponding to publication of July 21, 1986 (*B. Anz.* 177a of September 24, 1986, supplement);

Purified Turpentine oil corresponding to publication of May 6, 1985 (*B. Anz.* p. 4953);

as well as their preparations in effective dosage.

Pharmacological Properties, Pharmacokinetics, Toxicology

For preparations of camphor, eucalyptus oil and purified turpentine, hyperemization and secretolytic action is documented. In addition, eucalyptus oil acts as an expectorant and mild antispasmodic, purified turpentine as an antiseptic. Upon oral application, camphor acts also as an analeptic for the respiratory and circulatory systems, and as a bronchoantispasmodic. Pharmacological studies on the effectiveness of the fixed combinations are not available.

Clinical Data

1. Uses

For inhalation and external:

Catarrhs of the respiratory tract.

External:

Pain in the muscles and joints of non-inflammatory, rheumatic diseases.

2. Contraindications

Hypersensitivity to essential oils.

Inhalation:

Acute pneumonia.

External:

Injured skin (burns). For infants and small children, camphor and eucalyptus preparations should not be used in the facial area, especially around the nose.

3. Side Effects

Contact eczema is possible. External use on large surfaces could cause symptoms of poisoning (damage to kidneys and central nervous system).

Note: If used other than officially recommended (oral intake), nausea, vomiting and diarrhea may result.

4. Interactions with Other Drugs
None known.

5. Dosage
Unless otherwise prescribed:
The individual combination partners must be present at a concentration of 30 - 50 percent of the daily dosage specified in the respective monographs.
Sufficient data are not available concerning the dosage of this combination for infants and small children.

6. Mode of Administration
Internal:
For inhalation, use several drops in hot water and inhale the steam.
External:
For colds, rub semi-solid and liquid preparations onto chest and back.
For muscle and joint pains, apply semi-solid and liquid preparations to the affected areas.

Fixed Combinations of Caraway oil and Fennel oil
Published August 13, 1991

Composition of Drug
Fixed combinations consisting of:
Caraway oil corresponding to December 14, 1989 (*B. Anz.* 22a, February 1, 1990);
Fennel oil corresponding to March 11, 1991 (*B. Anz.* p. 2742);
and their preparations in effective dosage.

Uses
Dyspeptic discomfort, especially with mild spasms in the gastrointestinal region, flatulence, and a sensation of fullness.

Contraindications
Pregnancy. Not to be used for infants and small children.

Side Effects
In individual cases, allergic reaction of the skin and respiratory tract.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
The individual components must be present in amounts equivalent to 50 - 75 percent of the daily dosage indicated in the monographs for the individual oils.

Mode of Administration
Essential oil and galenical preparations thereof for oral intake.

Duration of Application
Fennel preparations should not be taken over extended time periods (several weeks) without consultation of a physician or pharmacist.

Actions
A spasmolytic, carminative and antibacterial effect is documented for caraway oil and fennel oil. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Caraway oil, Fennel oil, and Chamomile flower

Published August 13, 1991; Revised September 3, 1992

Composition of Drug

Fixed combinations consisting of:
Caraway oil corresponding to December 14, 1989 (*B. Anz.* 22a, February 1, 1990);
Fennel oil corresponding to March 11, 1991 (*B. Anz.* p. 2742);
Chamomile flower corresponding to November 1, 1984 (*B. Anz.* p.13327);
and their preparations in effective dosage.

Uses

Dyspeptic discomfort, especially with mild spasms in the gastrointestinal region, flatulence, and a sensation of fullness.

Contraindications

Pregnancy. Not to be used for infants and small children.

Side Effects

In individual cases, allergic reaction of skin and respiratory tract.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:
The individual components of the combination must be present in amounts equivalent to 30 - 50 percent of the daily dosage indicated in the monographs for the individual herbs.

Mode of Administration

Essential oil, comminuted drug and galenical preparations thereof for oral intake.

Duration of Application

Fennel preparations should not be taken over extended time periods (several weeks) without consultation of a physician or pharmacist.

Actions

A spasmolytic and antibacterial effect is documented for caraway oil, fennel oil, and chamomile flower. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Caraway seed and Fennel seed

Published August 13, 1991

Composition of Drug

Fixed combinations consisting of:
- Caraway seed corresponding to December 14, 1989 (*B. Anz.* 22a, February 1, 1990);
- Fennel seed corresponding to March 11, 1991 (*B. Anz.* p. 2742);
- and their preparations in effective dosage.

Uses

Dyspeptic discomfort, especially with mild spasms in the gastrointestinal region, flatulence, and a sensation of fullness.

Contraindications

In pregnancy, preparations other than teas and preparations with essential oil contents comparable to those of teas.

Side Effects

In individual cases, allergic reaction of the skin and respiratory tract.

Interaction with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

The individual components must be present equivalent to 50 - 75 percent of the daily dosage indicated in the monographs for the individual herbs.

Mode of Administration

Comminuted drug for teas and other galenical preparations thereof for oral intake.

Duration of Application

Fennel seed preparations should not be taken over extended time periods (several weeks) without consultation of a physician or pharmacist.

Actions

A spasmolytic and carminative effect is documented for caraway seed and fennel seed. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Caraway seed, Fennel seed and Chamomile flower

Published August 13, 1991

Composition of Drug

Fixed combinations consisting of:
- Caraway seed corresponding to December 14, 1989 (*B. Anz.* 22a, February 1, 1990);
- Fennel seed corresponding to March 11, 1991 (*B. Anz.* p. 2742);
- Chamomile flower corresponding to November 1, 1984 (*B. Anz.* p.13327);
- and their preparations in effective dosage.

Uses
Dyspeptic discomfort, especially with mild spasms in the gastrointestinal region, flatulence, and a sensation of fullness.

Contraindications
In pregnancy, preparations other than teas and preparations with essential oil contents comparable to those of teas.

Side Effects
In individual cases, allergic reaction of the skin and respiratory tract.

Interaction with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
The individual components of the combination must be present in amounts equivalent to 30 - 50 percent of the daily dosage indicated in the monographs for the individual herbs.

Mode of Administration
Comminuted drug for teas and other galenical preparations thereof for oral intake.

Duration of Application
Fennel preparations should not be taken over extended time periods (several weeks) without consultation of a physician or pharmacist.

Action
A spasmolytic effect is documented for caraway seed, fennel seed, and chamomile flower. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Dandelion root with herb, Celandine herb, and Artichoke leaf

Published December 18, 1991

Name of Drug
Fixed combinations of dandelion root with herb, celandine herb, and artichoke leaf.

Composition of Drug
Fixed combinations consisting of:
Dandelion root with herb corresponding to *B. Anz.* 228, December 5, 1984;
Celandine herb corresponding to *B. Anz.* 90, May 15, 1985;
Artichoke leaf corresponding to *B. Anz.* 122, July 6, 1988;
and their preparations in effective dosage.

Uses
Spastic epigastric discomfort due to functional disorders of the biliary system.

Contraindications
Obstruction of the biliary tract, empyema of gallbladder, ileus. Allergies to artichoke and other composites. In case of gallbladder diseases, to be used only after consultation with a physician or pharmacist.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Celandine herb must be present in the amount given in the monograph. The other two components of the combination must each be equivalent to 50 - 75 percent of the daily dosage indicated in the monographs for the individual herbs.

Mode of Administration
Comminuted drug and galenical preparations for oral intake.

Actions
A cholagogic effect has been documented for dandelion root with herb and artichoke leaf. Celandine herb has a papaverine-like, mildly spasmolytic effect on the upper gastrointestinal tract. Pharmacological tests for the effectiveness of combinations are not available.

Fixed Combinations of Dandelion root with herb, Celandine herb, and Wormwood

Published March 11, 1992

Name of Drug
Fixed combinations of dandelion root with herb, celandine herb, and wormwood.

Composition of Drug
Fixed combinations consisting of:
Dandelion root with herb corresponding to the monograph published November 1, 1984 (*B. Anz.* p. 13327);
Celandine herb corresponding to the monograph published May 6, 1985 (*B. Anz.* p. 4952);
Wormwood herb corresponding to the monograph published November 1, 1984 (*B. Anz.* p. 13327);
as well as their preparations in effective dosage.

Uses
Dyspeptic complaints, particularly for functional disorders of the gallbladder drainage system.

Contraindications
Obstruction of the bile ducts, empyema of the gallbladder, ileus. In case of gallstones, to be used only after consultation with a physician.

Side Effects
None known.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:
Celandine must be present at the concentration given in the monograph. Dandelion root with herb and wormwood must be at 50 - 75 percent of the daily dosage given in the monographs for the individual herb.
Deviating dosages must be justified for the specific preparation (e.g., comparison of bitter values).

Mode of Administration
Liquid and solid preparations for oral application.

Actions

Stimulation of gall secretion and appetite has been established for dandelion root with herb and wormwood herb. Celandine herb shows a papaverine-like, mild antispasmodic action on the upper intestinal tract. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Dandelion root with herb, Peppermint leaf, and Artichoke leaf

Published December 18, 1991

Name of Drug

Fixed combinations of dandelion root with herb, peppermint leaf, and artichoke leaf.

Composition of Drug

Fixed combinations consisting of:

Dandelion root with leaf corresponding to *B. Anz.* 228, December 5, 1984;
Peppermint leaf corresponding to *B. Anz.* 223, November 30, 1985;
Artichoke leaf corresponding to *B. Anz.* 122, July 6, 1988;
and their preparations in effective dosage.

Uses

Spastic epigastric discomfort due to functional disorders of the biliary system.

Contraindications

Obstruction of the biliary tract, empyema of gallbladder, ileus. Known allergies to artichoke and other composites. In case of gallbladder disease, to be used only after consultation with a physician or pharmacist.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Peppermint leaves must be present in the amount given in the monograph. The other two components of the combination must be each equivalent to 50 - 75 percent of the daily dosage indicated in the monographs for the individual herbs.

Deviating dosages must be justified for the specific preparation (e.g., comparison of bitter values).

Mode of Administration

Comminuted drug and galenical preparations for oral intake.

Actions

A cholagogic effect has been documented for dandelion root with herb and artichoke leaf. Peppermint leaf has a direct spasmolytic effect on the smooth muscles of the gastrointestinal tract. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Eucalyptus oil and Pine Needle oil

Published July 14, 1993

Name of Drug

Fixed combinations of eucalyptus oil and pine needle oil.

Composition of Drug

Fixed combinations consisting of:

Eucalyptus oil according to the notice of 21 July 1986 (*B. Anz.* p. 177a of September 24, 1986, Supplement);

Pine needle oil according to the notice of August 13, 1986 (*B. Anz.* 9943);

as well as preparations in effective dosage.

Pharmacological Properties, Pharmacokinetics, Toxicology

For preparations from eucalyptus oil and pine needle oil a hyperemic and secretolytic effect is proven. In addition, eucalyptus oil is an expectorant and is weakly spasmolytic. Pine needle oil is weakly antiseptic. Pharmacological studies about the effects of the fixed combination are unknown.

Clinical Data

1. Uses

For inhalation and external application in case of illnesses of the respiratory tract caused by a cold.

2. Contraindications

Bronchial asthma. Whooping cough.

External:

In the case of babies and small children, eucalyptus-containing preparations should not be applied in the area of the face, especially the nose.

3. Side Effects

On the skin and mucous membranes irritation phenomena can appear. Bronchial spasms can increase.

Note: If not used according to directions (e.g., swallowing), nausea, vomiting and diarrhea can occur.

4. Interactions with Other Drugs

None known.

5. Dosage

Unless otherwise prescribed:

Eucalyptus oil and pine needle oil each time, 3 - 10 percent in semisolid preparations.

Mixture of the essential oils 50 percent of the dose.

6. Mode of Administration

Semisolid preparations are rubbed on the chest and back.

For inhalation:

Hot water is poured over 1 - 5 g of ointment and the vapors are inhaled.

Hot water is poured over 1 - 5 drops of the essential oil mixture and the vapors are inhaled, or in the case of babies and small children 1 - 5 drops are given on a cloth.

Fixed Combinations of Eucalyptus oil, Primrose root and Thyme

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:

Eucalyptus oil corresponding to *B. Anz.* 177a, September 24, 1986;
Primrose root corresponding to *B. Anz.* 122, July 6, 1988;
Thyme corresponding to *B. Anz.* 228, December 5, 1984;
and their preparations in effective dosage.

Uses

Colds and diseases of the upper respiratory tract with viscous phlegm.

Contraindications

Inflammatory diseases of the gastrointestinal and biliary regions; severe liver diseases.

Side Effects

Occasionally, gastric discomfort, nausea, vomiting and diarrhea may occur.

Interactions with Other Drugs

Eucalyptus oil induces the enzyme system responsible for the breakdown of foreign substances in the liver. The effectiveness of other medications may, therefore, be diminished and/or shortened.

Dosage

Unless otherwise prescribed:

The individual components of the combination must each be present at 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Administration

Comminuted drug and galenical preparations for oral intake.

Actions

An expectorant effect is documented for preparations of primrose root, thyme, and eucalyptus oil. In addition, eucalyptus oil and primrose root have secretolytic action. Eucalyptus oil and thyme have a mild spasmolytic action, and thyme, an antibacterial action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Ginger root, Gentian root, and Wormwood

Published December 18, 1991

Name of Drug

Fixed combinations of ginger root, gentian root, and wormwood.

Composition of Drug

Fixed combinations consisting of:
Ginger root corresponding to *B. Anz.* 85, May 5, 1988;
Gentian root corresponding to *B. Anz.* 223, November 30, 1985;
Wormwood corresponding to *B. Anz.* 228, December 5, 1984;
and their preparations in effective dosage.

Uses

Loss of appetite, dyspeptic discomfort such as a sensation of fullness and flatulence.

Contraindications

Gastric and duodenal ulcers.

Side Effects

None known.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:
The individual components must each be present at 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.
Deviating dosages must be justified for the specific preparations (e.g., comparative bitter values).

Mode of Administration

Comminuted drug and bitter-tasting galenical preparations for oral intake.

Actions

For preparations of ginger root, gentian root, and wormwood, an appetite-stimulating effect with promotion of gastric secretion is documented. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Gumweed herb, Primrose root and Thyme

Published April 4, 1992

Composition of Drug

Fixed combinations consisting of:
Gumweed herb corresponding to *B. Anz.* 11, January 17, 1991;
Primrose root corresponding to *B. Anz.* 122, July 6, 1988;
Thyme corresponding to *B. Anz.* 228, December 5, 1984;
and their preparations in effective dosage.

Uses
Colds and diseases of the upper respiratory tract with viscous phlegm.

Contraindications
None known.

Side Effects
Occasionally gastric discomfort and nausea.

Interactions with Other Drugs
None known.

Dosage
Unless otherwise prescribed:

The individual components of the combination must each be present at 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Administration
Comminuted drug and galenical preparations for oral intake.

Actions
An expectorant effect is documented for preparations of primrose root and thyme. Gumweed herb and thyme also have antibacterial action. Primrose root has secretolytic action and thyme, bronchospasmolytic action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Ivy leaf, Licorice root, and Thyme

Published April 4, 1992; Revised September 3, 1992

Composition of Drug
Fixed combinations of:

Ivy leaf corresponding to *B. Anz.* 122, July 6, 1988;
Licorice root corresponding to *B. Anz.* 90, May 15, 1985;
Thyme corresponding to *B. Anz.* 228, December 5, 1984;
and their preparations in effective dosage.

Uses
Colds and diseases of the upper respiratory tract with viscous phlegm.

Contraindications
For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg glycyrrhizin:

Cholestatic liver diseases, liver cirrhosis, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy.

Side Effects
For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg glycyrrhizin:

Extended administration and higher dosages may cause mineralocorticoid effects in the form of sodium and water retention, loss of potassium with hypertonia, edema, and hypokalemia with muscular asthenia, and, in rare cases, myoglobinuria.

Interactions with Other Drugs

For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg glycyrrhizin:

Loss of potassium through other medications can be increased, e.g., thiazide and loop diuretics. The sensitivity toward digitalis glycosides increases with loss of potassium.

Dosage

Unless otherwise prescribed:

The individual components of the combination must each be present at 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Administration

Drug extracts for oral intake.

Actions

An expectorant and spasmolytic effect is documented for thyme, ivy leaf, and licorice root. In addition, thyme has antibacterial action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Javanese Turmeric root, Celandine herb, and Wormwood

Published December 18, 1991; Revised September 3,1992

Name of Drug

Fixed combinations of Javanese turmeric root, celandine herb, and wormwood.

Composition of Drug

Fixed combinations consisting of:

Javanese turmeric root corresponding to *B. Anz.* 122, July 6, 1988;

Celandine herb corresponding to *B. Anz.* 90, May 15, 1985;

Wormwood corresponding to *B. Anz.* 228, December 5, 1984;

and their preparations in effective dosage.

Uses

Spastic epigastric discomfort due to functional disorders of the biliary tract.

Contraindications

Obstruction of the biliary tract. If suffering from gallstones, to be used only after consultation with a physician or pharmacist.

Side Effects

Gastric discomfort may occur with extended use.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

Celandine herb must be present at the dosage given in the monograph. The other components of the combination must each be present at 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.

Deviating dosages must be justified for the specific preparations (e.g., comparative bitter values).

Mode of Administration

Comminuted drug and galenical preparations thereof for oral intake.

Actions

For preparations of wormwood and Javanese turmeric root, a choleretic effect is documented; for celandine herb a papaverine-like, mildly spasmolytic effect on the gastrointestinal tract is known. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Javanese Turmeric root, Peppermint leaf, and Wormwood

Published December 18, 1991

Name of Drug

Fixed combinations of Javanese turmeric root, peppermint leaf and wormwood.

Composition of Drug

Fixed combinations consisting of:

Javanese turmeric root corresponding to *B. Anz.* 122, July 6, 1988;
Peppermint leaf corresponding to *B. Anz.* 223, November 30, 1985;
Wormwood corresponding to *B. Anz.* 228, December 5, 1984;
and their preparations in effective dosage.

Uses

Dyspeptic discomfort, especially due to functional disorders of the biliary tract.

Contraindications

Obstruction of the biliary tract. If suffering from gallstones, to be used only after consultation with a physician or pharmacist.

Side Effects

Gastric discomfort may occur with extended use.

Interactions with Other Drugs

None known.

Dosage

Unless otherwise prescribed:

The individual components must each be present at 30 - 50 percent of the daily dosage given in the monographs for the individual herbs.

Deviating dosages must be justified for the specific preparations (e.g., comparative bitter values).

Mode of Administration

Comminuted drug and galenical preparations thereof for oral intake.

Actions

For preparations of Javanese turmeric root, peppermint leaf, and wormwood, a choleretic and carminative effect is documented; for peppermint leaf also a spasmolytic action. Pharmacological tests for the effectiveness of fixed combinations are not available.

Fixed Combinations of Licorice root and German Chamomile flower

Published July 14, 1993

Name of Drug

Fixed combinations of licorice root and chamomile flower.

Composition of Drug

Fixed combinations consisting of:

Licorice root with herb corresponding to the monograph published May 6, 1985 (*B. Anz.* p. 4953);

Chamomile flower corresponding to the monograph published November 1, 1984 (*B. Anz.* p. 13326);

as well as their preparations in effective dosage.

Pharmacological Properties, Pharmacokinetics, Toxicology

For preparations of licorice and chamomile, an antispasmodic action is documented. Chamomile has an antiphlogistic and wound healing effect.

Glycyrrhizic acid and the aglycone of glycyrrhizic acid enhance the healing of gastric ulcers, according to controlled, clinical studies. Pharmacological studies pertaining to the fixed combination are not available.

Clinical Data

1. Uses

For symptomatic treatment of irritated (nervous) stomach and simple gastric ulcers.

2. Contraindications

For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg of glycyrrhizin:

Cholestatic liver disorders, liver cirrhosis, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy.

3. Side Effects

For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg of glycyrrhizin:

Extended use and higher dosages can cause mineralocorticoid effects, such as sodium and water retention, loss of potassium with high blood pressure, edema and hypokalemia with muscle weakness, and, in rare cases, myoglobinuria.

4. Interactions with Other Drugs

For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg of glycyrrhizin:

Loss of potassium due to other medications, e.g., thiazide and loop diuretics, can be intensified. Loss of potassium increases the sensitivity to digitalis glycosides.

5. Dosage

Unless otherwise prescribed:

The individual combination partners must be present at the concentration of 50 - 75 percent of the daily dosage given in the individual monographs.

6. Mode of Administration

Comminuted herb and preparations for oral use.

7. Duration of Administration

Without medical advice, not longer than 4 - 6 weeks.

Fixed Combinations of Licorice root, Peppermint leaf, and German Chamomile flower

Published March 11, 1992

Name of Drug

Fixed combinations of licorice root, peppermint leaf and chamomile flower.

Composition of Drug

Fixed combinations consisting of:

Licorice root corresponding to the monograph published May 15, 1985;
Peppermint leaf corresponding to the monograph published November 11, 1985;
Chamomile flower corresponding to the monograph published November 1, 1984;
as well as their preparations in effective dosage.

Uses

Acute and chronic inflammation of the gastric mucosa with spastic discomforts in the gastrointestinal area.

Contraindications

Cholestatic liver disorders, cirrhosis of the liver, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy.

In case of gallstones, to be used only after consultation with a physician.

Side Effects

For a daily dosage up to 100 mg glycyrrhizin:

None known.

For a daily dosage of more than 100 mg of glycyrrhizin:

Extended use and higher dosages can cause mineralocorticoid effects, such as sodium and water retention, potassium loss with high blood pressure, edema and hypokalemia with muscle weakness, and, in rare cases, myoglobinuria.

Interactions with Other Drugs

Loss of potassium due to other medication, e.g., thiazide and loop diuretics, can be intensified. Loss of potassium increases the sensitivity to digitalis glycosides.

Dosage

Unless otherwise prescribed:

Licorice root, peppermint leaf and chamomile flower must be at the concentration of 50 - 75 percent of the daily dosage given in the individual monographs.

Deviating dosages must be justified specifically for the preparation.

Mode of Administration

Liquid and solid preparations for oral application.

Duration of Administration

Without medical advice, not longer than 4 - 6 weeks.

Actions

An antispasmodic effect is documented for licorice root, peppermint leaf, and chamomile flower. Chamomile flower has in addition an antiphlogistic and wound-healing action, glycyrrhizic acid and the aglycone of glycyrrhizic acid enhance the healing of gastric ulcers, according to controlled clinical studies. Pharmacological experiments for fixed combinations are not available.

Fixed Combinations of Licorice root, Primrose root, Marshmallow root, and Anise seed

Published March 11, 1992

Name of Drug

Fixed combinations of licorice root, primrose root [*Primula*, not *Oenothera* (evening primrose)], marshmallow root and anise seed.

Composition of Drug

Fixed combinations consisting of:

Licorice root corresponding to the monograph published May 6, 1985;
Primrose root corresponding to the monograph published April 11, 1988;
Marshmallow root corresponding to the monograph published January 5, 1989;
Anise seed corresponding to the monograph published April 11, 1988;
as well as their preparations in effective dosage.

Uses

Catarrh of the upper respiratory tract and resulting dry cough.

Contraindications

For daily dosages of less than 100 mg glycyrrhizin:

Hypersensitivity to anise and anethole.

For daily dosages of more than 100 mg glycyrrhizin:

Cholestatic liver disorders, cirrhosis of the liver, hypertonia, hypokalemia, severe kidney insufficiency, pregnancy.
Hypersensitivity to anise and anethole.

Side Effects

For daily dosages below 100 mg glycyrrhizin:

Occasionally allergic reactions involving skin, respiratory tract and gastrointestinal tract. Isolated stomach discomforts and nausea can occur.

For daily dosages above 100 mg glycyrrhizin:

Extended use and higher dosages can cause mineralocorticoid effects, such as sodium and water retention, loss of potassium coupled with high blood pressure, edema and hypokalemia with weakness of the muscles, and, in rare cases, myoglobinuria. Occasionally allergic reactions involving skin, respiratory tract and gastrointestinal tract. Isolated stomach discomforts and nausea can occur.

Interactions with Other Drugs

For daily dosages below 100 mg glycyrrhizin:

None known.

For daily dosages above 100 mg glycyrrhizin:

Loss of potassium due to other medications, e.g., thiazide and loop diuretics, can be increased. Loss of potassium can increase the sensitivity to digitalis glycosides.

Note: The absorption of other, simultaneously administered drugs can be delayed.

Dosage

Unless otherwise prescribed:

Marshmallow root must be present in the dosage given in its monograph.
Licorice root, primrose root, and anise must be at the concentration of 30 - 50 percent of the daily dosage given in the individual monographs.

Deviating dosages must be justified specifically for the preparation.

Mode of Administration
Liquid and solid forms of preparations for oral use.

Duration of Administration
Without medical advice, not longer than 4 - 6 weeks.

Actions
An expectorant effect is documented for Licorice root, primrose root and anise seed. In addition, a secretolytic action is shown for licorice root and primrose root. Anise has an antibacterial and mild antispasmodic action; marshmallow root has a soothing action and inhibits ciliary activity in vitro. Pharmacological experiments for the fixed combinations are not available.

Fixed Combinations of Marshmallow root, Fennel seed, Iceland moss, and Thyme

Published April 4, 1992

Composition of Drug
Fixed combinations consisting of:

Marshmallow root corresponding to *B. Anz.* 43, March 2, 1989;
Fennel seed corresponding to *B. Anz.* 74, April 19, 1991;
Iceland moss corresponding to *B. Anz.* 43, March 2, 1989;
Thyme corresponding to *B. Anz.* 228, December 5, 1984;
and their preparations in effective dosage.

Uses
Colds and diseases of the upper respiratory tract with dry cough.

Contraindications
Pregnancy:

Other preparations of fennel, except for teas and preparations with essential oil contents comparative to teas.

Side Effects
In individual cases, allergic reactions of the skin and respiratory tract.

Interactions with Other Drugs
None known.

Warning: The absorption of other, simultaneously taken drugs can be delayed.

Dosage
Unless otherwise prescribed:

Marshmallow root and Iceland moss must each be present at 50 - 75 percent of the daily dosage given in the monographs for the individual herbs. Also, fennel and thyme must each be present at 50 - 75 percent of the daily dosage given in the monographs for the individual herbs.

Mode of Administration
Comminuted drug and galenical preparations for oral intake.

Duration of Use
Preparations of fennel should not be taken over an extended period of time (several weeks) without consultation with a physician or pharmacist.