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Medicinal plants used in Egypt

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Medicinal Plants Used in Egypt

***Camellia sinensis* L. Kuntze** شاي اخضر

1. Names & Synonyms

***Camellia sinensis* L. Kuntze**

Family: Theaceae

Syns.: *Camellia thea* Link**,** *Thea sinensis* L., *Thea viridis* L. (1-3).

Arabic: Shai akhder شای اخضر

English name: Green tea (2, 4, 5), Chinese tea (3).

2. Parts used for medicinal purpose

Dried leaves (4, 5).

3. Major chemical constituents

- **Catechins**: (-)-Epigallocatechin-3-gallate (EGCG), (-)-epigallocatechin (EGC), (-)-epicatechin-3-gallate (ECG),-and (-)-epicatechin (EC) (6, 7).
- **Phenolic acids:** Gallic acid, chlorogenic acid, theogallin, neochlorogenic acid, caffeoylquinic acid (4, 7, 8).
- **Alkaloids**: Caffeine (9), theobromine, and theophylline (4, 10)
- **Amino acids:** L-Theanine (7).
- **Flavonoids**: Quercitin-3-D-galactoside and kaempferol-3-glucoside (4, 7).

4. Medicinal Uses (Indications)

A. For relief of fatigue and sensation of weakness (4).

B. Weight reduction and management through following diet and increase physical activity during weight control programs (2).

5. Herbal preparations correlated to medicinal use

1. Comminuted herbal substance as decoction or infusion (2, 4).
2. Powdered herbal substance (4).
3. Standardized extracts (2, 5).

3.1. Dry extract.

3.2. Liquid extract.

4. Tincture (2).

Herbal preparations (2–4) are in pharmaceutical dosage forms. The pharmaceutical form should be described by the pharmacopoeia full standard term.

6. Posology and method of administration correlated to medicinal use

Preparation 1
Indication A: 1.8 – 2.2 g of whole or comminuted herbal substance in 100 – 150 ml of boiling water, 3 – 5 times, daily (4).

Preparation 2
Indication A: 390 mg, 3 times daily (up to 5 times if necessary) (4).

Preparations 3 - 5
Indication B: 136 - 300 mg EGCG and 75 – 150 mg caffeine, daily (2).

Duration of use:
If the symptoms of fatigue or weakness persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted (4).

Method of administration: Oral use (4).

7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- Gastric and duodenal ulcers, cardiovascular disorders such as hypertension and arrhythmia, hyperthyroidism, kidney inflammation, insomnia or increased intraocular pressure (4, 5).

8. Special warnings and precautions for use

- If symptoms worsen during the use of the medicinal products a doctor or pharmacist should be consulted.
- Use should be stopped and a doctor or pharmacist should be consulted if symptoms developed as liver trouble such as yellowing of the skin/eyes (jaundice), stomach pain, dark urine, sweating, nausea, unusual tiredness and/or loss of appetite (2).
- A doctor or pharmacist should be consulted if you have liver disorder or iron deficiency (2).
- The use in children and adolescents under 18 years of age is not recommended (4).
- Use is not rrecommended before bedtime as it may cause sleep disturbances (4).

9. Interactions with other medicinal products and other forms of interaction (5)

- **Beta-adrenergic blockers**: Green tea used with these agents may increased inotropic effects.
- **Bronchodilators, xanthines (theophylline)**: Large amounts of green tea increase the action of some bronchodilators, xanthines.
- **MAOIs**: Green tea used in large amounts with MAOIs can lead to hypertensive crisis, concurrent use should be avoided.
- **Ephedra**: Concurrent use of ephedra and caffeinated green tea may increase hypertension and CNS stimulation; concurrent use should be avoided.
- **Dairy products**: Dairy products may decrease the therapeutic effects of green tea.
- **Iron**: Green tea may decrease iron absorption.
- **Caffeine** containing preparations reduce sedative action and increase side effects caused by sympathomimetic drugs.
- The resorption of alkaline medications can be delayed because of chemical bonding with the tannins.
- **Lab Test**: Glucose, urine creatine, urine catecholamine: Green tea may increase these levels.

10. Fertility, pregnancy and lactation (4)

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended.
- No fertility data available.

11. Effects on ability to drive and use machines (4)

No studies on the effect on the ability to drive and use machines have been performed.

12. Undesirable effects

- None reported.
- If adverse reactions occur a doctor or a pharmacist should be consulted.

13. Overdose

- Anxiety, nervousness, insomnia, increased blood pressure, palpitations, irregular heartbeat, nausea, heartburn, increased stomach acid (3, 5).
- Quantities corresponding to more than 300 mg caffeine or 5 cups of tea can lead to restlessness, tremor and elevated reflex excitability. The first signs of poisoning are vomiting and abdominal spasm (4).

14. Relevant biological activities

Not required as per Egyptian guidelines for registration of herbal medicines.

15. Additional information

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16. Date of compilation/last revision

16/08/2022

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