Egyptian Herbal Monograph

Volume 2

Medicinal plants used in Egypt

Egyptian Drug Authority (EDA)

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***Punica granatum* L.** رمان

1. Names & Synonyms (1)

***Punica granatum* L.**
Syns.: *Rhoea punica* St.-Lag.
Family: Lythraceae.
Arabic: Romman رمان(2).
English: Pomegranate (1,2).

2. Parts used for medicinal purpose

Fruit peel(pericarp), root and stem bark, (3-7) and flowers (5-7).

3. Major chemical constituents

Fruits peel

- **Anthocyanins**: Cyanidin-3-glucoside, cyanidin-3,5-diglucoside, pelargonidin-3,5-diglucoside and pelargonidin-3-glucoside (8).
- **Ellagitannins and gallotannins:** Punicalagins A and B and punicalins (8-10).
- **Phenolic acids:** Gallic, ellagic, quinic, ascorbic and caffeic acids (8).
- **Flavonoids**: Luteolin, kaempferol and quercetin (8,9).
- **Minerals:** Potassium, nitrogen, calcium, phosphorus, magnesium and sodium (8).

Flowers:

- **Anthocyanins:** Pelargonidin-3,5- diglucoside, pelargonidin 3-glucoside (11).
- **Phenolic acids:** Ellagic acid (12).
- **Others:** Ethyl brevifolincarboxylate, pomegranatate, urolic, maslinic acids, daucosterol (12), punicaflavone, granatumoside (13,14).

4. Medicinal uses (Indications)

A. Treatment of diarrhoea, dysentery, dyspepsia, tapeworm and other intestinal worms/ parasites (3-7).

B. Treatment of gingivitis (3), sore throat (3,5), inflamed mouth (6) and hemorrhoids (5).

5. Herbal preparations correlated to medicinal use

1. Comminuted herbal substance is added to water in the form of decoction, infusion or maceration (3, 5-7).
2. Powdered drug (6).

Herbal preparation (2) is 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

Indications A and B

3 - 9 g of root/trunk bark as a decoction (3).

For tapeworm:

- 60 ml of 1: 5-6 drug: water decoction, 4 times daily (2 hours intervals between doses accompanied before and after treatment by a laxative) (5, 7).
- 5 – 20 g bark (root or stem bark) in 240 ml water boiled until 1/3 evaporated , 2 hours after taking 40 ml castor oil , take the concentrated extract in 3 hourly doses on empty stomach. (6).

Indication B

4 - 7 g of flowers in 300 ml water (6).

Preparation 2

Indication A

- 2.5 - 4.5 g of pericarp/peel, daily in divided doses (3).
- 1 - 3 g of bark, daily in divided doses (6).

Method of administration:

- **Indication A:** Oral use.
- **Indication B:** Buccal use; for hemorrhoids: External use.

7. Contraindications

Hypersensitivity to the active substance and to other plants of the same family.

8. Special warnings and precautions for use

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- It should not be given therapeutically to children (4).
- In cases of diarrhoea lasting for longer than 3 days, or associated with fever, nausea, vomiting or bloody stools, a doctor should be consulted (3).

9. Interactions with other medicinal products and other forms of interaction

None reported.

10. Fertility, pregnancy and lactation

- Use 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

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

12. Undesirable effects

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Dizziness, visual disturbances, weakness, calf spasms and tremors (3).

13. Overdose

Overdoses with the rind of the stem or the root (above 80 gm) lead to dizziness, mydriasis, severe headache, vertigo, vomiting, lethargy, collapse and possible death due to the alkaloid content (3,5).

14. Relevant biological activities

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

15. Additional Information

Pomegranate is an antioxidant (15).

16. Date of compilation/last revision

22/01/2024.

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