Egyptian Herbal Monograph

Volume 1

Wild Medicinal Plants

Egyptian Drug Authority (EDA)

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***Ambrosia maritima* L.** دمسيسة/ غبيرة

1. Names & Synonyms

***Ambrosia maritima* L.** (1,2)
Family: Compositae (Asteraceae).
Arabic: Demsisa دمسيسة , Ghobbeira غبيرة.
English: Sea ambrosia, Oak of Cappadocia (3).

2. Geographical distribution

The Nile valley and the Nile Delta, Oases, and the Mediterranean region (1).

3. Parts used for medicinal purposes

- The above ground flowering and fruiting herb (2).
- The whole plant, leaves and stems (3).

4. Major chemical constituents (3)

-Sesquiterpene Lactones: Ambrosin, neoambrosin, damsin, farnserin, hymenin, parthenin, and neombrasin.

-Sesquiterpenes: Damsinic acid.

-Polyphenols and Flavonoids: 6-Methoxy luteolin-4'-*O*-lactate, apigenin-4'-*O*-*α*-L-rhamnopyranoside (4).

-Volatile Oil: Carvone, camphor, caryophyllene and cineole (5, 6).

-Others: Sterols, coumarins, tannins.

5. Traditional medicinal uses

A. Gastrointestinal disturbance and abdominal pain, and as anti-spasmodic (7, 8).
B. Kidney problems (kidney inflammation, kidney stones, renal colic, spasms and frequent urination) and as diuretic (7, 8).
C. Externally for rheumatic pains (9, 10, 11).

***A. maritima* is a traditional medicinal plant for use in the specified indications exclusively based upon long-standing use.**

6. Herbal preparations correlated to medicinal use (1, 3)

1. Decoction of the aerial parts for oral use (One teaspoonful of aerial parts is boiled and left till cold, then sweeten with honey).
2. Decoction or infusion of aerial parts for oral use.
3. The dried powdered plant mixed with small amount of oil and used externally.

7. Posology and method of administration correlated to medicinal use (12)

Preparations 1-3

Indication A & B: 3 cups/day.

Method of administration: Oral use.

Indication C: dosage: 4 times/ day.

Method of administration: External use.

8. Contraindications

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

9. 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.
- May exert estrogen like effect (3).

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

None reported.

11. Fertility, pregnancy and lactation

-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.

12. Effects on ability to drive and use machines

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

13. Undesirable effects

-None known.

-If adverse reactions occur, a doctor or a pharmacist should be consulted.

14. Overdose

- High doses of the drug may be toxic (3).

15. Relevant biological activities

- Nephroprotective effect of methanolic extract of *Ambrosia maritima* leaves was studied in healthy albino rats (1.25-1.75 kg) of either sex. The renal toxicity was produced by administration of rifampin at dose rate of 70 mg/kg I/p for 28 days. The plant extract was given by simultaneous oral administration of the methanolic extract of *Ambrosia maritima* leaves at a dose rate of 300 and 600mg/kg for 28 days. The methanolic extract showed a marked nephroprotective effect depending on the concentration (13).
- No toxic signs could be detected on rats neither after oral administration of 5g/kg of dried leaves as a powder or as a methanolic extract, nor after the incorporation of 50,000 ppm powdered leaves in the feeding after 4 weeks. Toxicological effects of *Ambrosia maritima* in Nubian goats were investigated. The results revealed that goats drenched the plant for 126 days, showed chronic toxicity evident by clinical symptoms, pathological and biochemical changes (14).
- In rabbits, Demsisa (400mg/ kg body weight) produced significant estrogen-like activities ($p<0.05$) in the form of increased both uterine and ovarian weights as compared with the control group (15).

16. Additional information:

Each 100g of Demsisa leaf powder contains carbohydrate (29.40g), protein (26.20g), fat (5.30g) ash (20.67g), crude fiber (10.07g) and moisture (8.37g) (4).

17. Date of compilation/last revision

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