

Egyptian Herbal Monograph

Volume 3

Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

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Oenothera biennis L.

زهرة الربيع المسائية

1. Names & Synonyms

Oenothera biennis L.

Family: Onagraceae (1).

Syns.: *Oenothera biennis* var. *vulgaris* Torr. & A. Gray. *Onagra biennes* (L.) Scop, *Pseudo-oenothera virginiana* Rupr (1).

Arabic: Zahrat El-Rabei El-Masaeia زهرة الربيع المسائية

English name: Evening primrose (2), Evening star, King's cure-all, Suncup, Sundrop (3).

2. Parts used for medicinal purpose

Seeds (2, 4).

3. Major chemical constituents

Fixed oil: Mainly linoleic acid and γ -linolenic acid and less amount of other fatty acids (oleic, palmitic and stearic acids) (5), aliphatic alcohols and β -amyrin (6).

4. Medicinal Uses (Indications)

- A. For symptomatic treatment of atopic eczema, itching in acute and chronic dry skin conditions (2, 4).
- B. Mastalgia; one of the symptoms of Premenstrual Syndrome (PMS) (2).

5. Herbal preparations correlated to medicinal use

Fatty oil obtained from seeds by extraction and/or expression (4).

Herbal preparation 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

Indication A:

Adolescents, adults and elderly:

Single dose: 2 - 3 g, Daily dose: 4 - 6 g (4) or 320 - 480 mg, daily (calculated as γ -linolenic acid), in divided doses (2).

Indication B: 240 - 320 mg, daily (calculated as γ -linolenic acid), in divided doses (2).

Duration of use:

If the symptoms persist longer than 8 weeks during the use of the medicinal product, a doctor or pharmacist should be consulted.

Method of administration: Oral use (4).

7. Contraindications

Hypersensitivity to the active substances 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.
- The use in children under 12 years of age is not recommended (4).
- Evening primrose oil is recommended to be used with caution in epileptic patients, especially in those with schizophrenia and/or those taking phenothiazines (2, 5).
- Oral evening primrose oil should be used with caution by patients with bleeding disorders (3).

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

- **Anticoagulant drugs:** due to potential additive effect, as it can inhibit platelets aggregation and increase bleeding time (2, 3).
- Seizures have occurred in a few schizophrenic patients taking evening primrose oil with phenothiazine (5).

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 (4)

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Gastrointestinal effects, indigestion, nausea, softening of stool, rise in temperature, hypersensitive reactions like exanthema and headache have been reported.

13. Overdose (4)

The symptoms of overdosing are mild diarrhoea and abdominal pain. No special treatment is required.

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

22/08/2022.

References

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4	European Union Herbal Monograph on <i>Oenothera biennis</i> L., (2018). EMA/HMPC/424583/2017. Committee on Herbal Medicinal Products (HMPC).
5	Barnes, J., Anderson, L. A. and Phillipson, J. D. (2007). <i>Herbal Medicines</i> , 3 rd edition. Published by the Pharmaceutical Press. ISBN 978 0 85369 623 0.
6	Timoszuk, M., Bielawska, K. and Skrzydlewska, E. (2018). Evening Primrose (<i>Oenothera biennis</i>) biological activity dependent on chemical composition. <i>Antioxidants</i> , 7 (8), 108.