

## Botanical, phytochemical and traditional medicine evaluation of different types of *Harmal*: A library study

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### Abstract:

**Background and purpose:** Considering the increasing trend of using oral form of *Esfand* (*Peganum harmala*) as the equivalent of *Harmal* in traditional Persian medicine and reports of its complications and controversies in its efficacy, it seems that conducting a review study on *Peganum harmala* and its relationship with *Harmal* in traditional sources is a necessity.

**Methods and Materials:** At the first step, different names and equivalents of *Esfand* and *Harmal* were extracted using Jamie Tibb software. Then, each extracted name was evaluated in the main and older traditional medical sources. Phytochemical and botanical properties of each related herb were evaluated in modern sources. Also, common *Esfand* in the Iranian markets were evaluated and its phytochemical properties were searched in the web and PubMed database. At the end, a comparison between the results was done.

**Results:** Phytochemical and botanical properties of *Peganum harmala* is different from the *Harmal* which is mentioned in traditional medical sources. *Rhazia stricta* which is known in Iran as *Eshvarak* has the nearest morphology to the *Harmal*.

**Conclusion:** According to phytochemical and morphology of these two different herbs, considering the therapeutic effect of *Harmal* for *Esfand* is in doubt.

**Keywords:** Esfand, Harmal, *Peganum harmala*, *Rhazia stricta*, Traditional Persian Medicine, Botanical

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