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LETTER TO THE EDITOR

Medicinal Plants for the Treatment of Uterus Inflammation: Implications from Iranian Folk Medicine

Dear Editor,

Uterus inflammation (UI) is a prevalent, perilous, and costly disorder afflicting young females. Infertility is among the most important complications of UI, which is secondary to the inflammation and microbial infection. The book "Hidayat al-Muta'allimin fi al-Tibb" (An Educational Guide for Medicinal Students) is the oldest available Persian medical book, written by Akhaveyni Bukhari [1]. In view of this scientific treasure collection of Iranian folk medicine, UI is classified into three stages, non-septic, septic, and rigid edema, which progress in severity. Interestingly, the signs and symptoms described for UI in this book correspond well with the findings of modern medicine. UI manifestations at the first and second stages are very close to those of pelvic inflammatory disease (PID), and to tubo-ovarian abscess at the third stage of the disease. A number of medicinal herbs have been recommended as effective remedies for each stage of the disease as follows [1,2]:

Medicinal plants for the non-septic stage: *Althea officinalis* (seed, oral), *Cucumis melo* (seed, oral), *Cucumis sativus* (seed, oral), *Cucurbita pepo* (juice and seed, oral), *Plantago major* (macerate, intra-uterine), *Plantago ovata* (mucilage, intra-uterine or oral), *Prunus domestica* (fruit, oral), *Rosa* spp. (oil, intra-uterine), *Spinacia oleracea* (leaves, oral), *Gardenia latifolia* (seed, oral).

Medicinal plants for the septic stage: *Althea officinalis* (flower, pubic or intra-uterine), *Anethum graveolence* (leaves, pubic or intra-uterine), *Cheiranthus cheiri* (seed, pubic), *Linum usitatissimum* (seed, pubic or intra-uterine), *Matricaria chamomilla* (flower, pubic or intra-uterine), *Astragalus hamosus* (fruits, pubic or intra-uterine), *Trigonella foenum-graceum* (seed, pubic or intra-uterine), *Viola odorata* (oil or dried fruits, pubic or intra-uterine).

Medicinal plants for the rigid stage: *Anethum graveolens* (seed oil, intra-uterine), *Artemisia absinthium* (seed mucilage, intra-uterine), *Commiphora mukul* (oleogum resin,

pubic), *Dorema ammoniacum* (oleogum resin, pubic), *L. usitatissimum* (seed, intra-uterine), *Liquidambar orientalis* (seed, pubic), *Narcissus tazetta* (flower oil, intra-uterine), *T. foenum-graecum* (seed mucilage, intra-uterine).

The current primary medical approach for UI and PID relies on the eradication of infection (mostly from *Chlamydia trachomatis* and *Neisseria gonorrhoeae*) and mitigation of inflammation. Of note, modern scientific research has unveiled promising antimicrobial, anti-inflammatory, and analgesic activities for most of the aforementioned herbs that well justifies their application for the treatment of UI and PID, and preventing subsequent infertility.

References

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2. Ahmadian-Attari MM, Kamalinia G, Mosaddegh M, Farsam H. A comparative study on uterus and kidney inflammation and their treatments described in the book "hidayat al-muta'allimin fit-tib" with modern medicine. *J Medicinal Plants* 2010;9:18–37.

Amirhossein Sahebkar*
Biotechnology Research Center and School of Pharmacy,
Mashhad University of Medical Sciences, Mashhad, Iran

Seyed Ahmad Emami
Department of Pharmacognosy, School of Pharmacy,
Mashhad University of Medical Sciences, Mashhad, Iran

*Corresponding author. School of Pharmacy, Mashhad
University of Medical Sciences, P.O. Box 91775-1365,
Mashhad, Iran.

E-mail: sahebkarah811@mums.ac.ir (A. Sahebkar)

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