Plants used in Iranian Traditional Medicine for the Treatment of Oligomenorrhea

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ABSTRACT
There is an increasing demand for alternative medicine methods in treatment of menstrual disease. Oligomenorrhea, a prevalent disease with serious complications, has been declared in Iranian traditional medicine (ITM) in detail. Six plants were identified as the most commonly medication to induce menstrual bleeding in women with oligomenorrhea that have ignorable side effects compare to the current hormonal therapies. Thus, clinical trial studies with control group are recommended to find herbal remedies that could be replicated by hormonal therapy.

INTRODUCTION
In most developing countries, the use of indigenous, natural drugs is a common practice because life-saving synthetic drugs are beyond the reach of the people. In countries such as Iran, India and China, it is not only the unavailability or inaccessibility of modern pharmaceuticals that drives people to traditional remedies, but more importantly the presence of a medical system enshrined within their customs. The most accessible health care provider is, therefore, the traditional medical practitioner who has in his possession an armamentarium of effective herbal remedies. Oligomenorrhea with a prevalence of 12-15.3% in different studies around the world, is one of the most common types of menstrual bleeding disorders [1,2]. In recent decades, as a result of changes in lifestyle, obesity, low physical activity, unhealthy nutrition, and emotional stress, the prevalence of amenorrhea and oligomenorrhea has increased considerably (3). Among several etiologic factors, polycystic ovarian disease (PCOD) is the most important underlying factor for oligomenorrhea [4,5]. According to conventional medicine, negligence to treat menstrual bleeding cessation can lead to several complications-especially in PCO patients- that include low fertility, lowering bone density, endometrial and breast cancer, coronary and brain artery disease, diabetes, hirsutism and acne [6,7].

Etiology of Oligomenorrhea in Iranian traditional medicine:
Oligomenorrhea in ITM has been more frequently reported as “Ehtebas tams” and has three main etiological factors [8,9].
A) Decrease in blood volume [8]
B) Obstruction in uterine [9]
C) Cold tempermant [9]
The ITM physicians believe that patients with oligomenorrhea should be treated to avoid complications that may occur because of cessation of menstrual bleeding as a major excretory pathway [10]

Dosage form of plants used in ITM for the treatment of oligomenorrhea:
According to the avicenna and razes treatment for oligomenorrhea, plants used in two dosage form, oral (syrup and decoction) and vaginal. The plants that identified as the most commonly medication to induce menstrual bleeding in women with oligomenorrhea may used single or with other plants. [11]
**Pimpinella anisum:**
Anise seeds are used as analgesic in migraine and also as carminative, aromatic, disinfectant, and diuretic in traditional medicine. Aniseed has warm and dry nature and can increase milk production, menstruation, urine, and sweat secretion and also make good complexion. It is also effective in polishing of teeth. In some traditional texts, anise is mentioned for melancholy, nightmare, and also in treatment of epilepsy and seizure. [12]

**Nigella sativa:**
The seeds of *Nigella sativa* Linn (Ranunculaceae), commonly known as black seed or black cumin, are used in folk (herbal) medicine all over the world for the treatment and prevention of a number of diseases and conditions that include asthma, diarrhoea and dyslipidaemia. [13] The seeds contain both fixed and essential oils, proteins, alkaloids and saponin. Much of the biological activity of the seeds has been shown to be due to thymoquinone, the major component of the essential oil, but which is also present in the fixed oil. The pharmacological actions of the crude extracts of the seeds (and some of its active constituents, e.g. volatile oil and thymoquinone) that have been reported include protection against nephrotoxicity and hepatotoxicity induced by either disease or chemicals. The seeds/oil have antiinflammatory, analgesic, antipyretic, antimicrobial and antineoplastic activity. The oil decreases blood pressure and increases respiration. [14]

**Mentha longifolia:**
In a study by Shariati M et al., the effect of Lamiaceae family on FSH was investigated. Assessment of the effect of Mentha pulegium leaves on gonadotropin tests in male rat showed that the hydro-alcoholic extract of Mentha pulegium leaves causes a significant decrease in FSH and LH levels [15].

The results of another study showed that *Mentha longifolia* L. syrup is significantly effective over placebo in inducing bleeding in women with secondary amenorrhea and that the pattern of bleeding is significantly more regular with *Mentha longifolia* L., while side effects are least.

Due to the beneficial effects of *Mentha longifolia* L., besides its safety, availability and low cost; a future therapeutic role in women with amenorrhea and oligomenorrhea is expected. [16].

**Sesamum indicum:**
*Sesamum indicum* is one of the most important oilseed crops with worldwide production reaching about 3*3*3Mt annually [17]. Sesame is rich in unsaturated fatty acids and antioxidant lignans, exemplified by Sesamin, Sesamolin and Sesaminol, which are also classified as phyto-oestrogens [18].

Sesame is an important herb mentioned in the Iranian Traditional Medicine for oligomenorrhea [19]. Although this is widely used in the traditional medicine university clinics, no clinical trial has evaluated and approved its therapeutic effect. The present study is a pilot to evaluate menstruation upon *Sesamum indicum* L. use. The results from a study showed that sesame intake has noteworthy advantages on induction of uterus bleeding. The percentage of patients experiencing uterus bleeding following sesame use was 85% which is a fine response to treatment. The high rate of menstruation in the next menstrual cycle without treatment is also remarkable. [20]

**Foeniculum vulgare:**
In a study by Namavar jahromi et al showed that the efficacy of fennel drop 2% in pain relief in primary dysmenorrhea is comparable to the efficacy of common NSAIDs such as mefenamic acid cap. Investigators recommend that another product of fennel such as tab, cap, or fennel oil might be more acceptable than the essence. One subject had severe menstruation after taking fennel drop. [21]

**Juniperus excelsa M. Bieb:**
A decoction of *J. excelsa* female cones is used to treat menstruation disorders by local people of Kohgilüyé va Boyer-Ahmad province. They also use powder of cones as a component of their traditional remedy for female infertility and uterine cysts. Indigenous people of Tehran province use the powdered cones for dysmenorrhea and promote menstruation. [22]

Thus many different plants have been used individually or in formulations for treatment of oligomenorrhea and its complications. One of the major problems with this herbal formulation is that the active ingredients are not well defined. It is important to know the active component and their molecular interaction, which will help to analyse therapeutic efficacy of the product and also to standardize the product. Efforts are now being made to investigate mechanism of action of some of these plants using model systems.
REFERENCES


