

Scope of Some Medicinal Plants in Certain Women Health Disorders as Traditional Remedy

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Abstract

Menstrual problem is very agonizing clinical entity since ages. Women are facing this ailment all over the world. Indian traditional medicine system-Ayurveda has mentioned the use of lot many herbal preparation with success. We present this review to enlighten the scope of use of medicinal plants in menstrual disorders and the need of further clinical research in this field.

Keywords: Oligomenorrhea; Amenorrhea; Medicinal Plants

Introduction

Gynecology is the medical practice dealing with the health of the female reproductive system (uterus, vagina and ovaries). It is an important branch, related to the treatment of abortion, menstrual trouble, menopause syndrome, morning sickness, leucorrhea, antifertility, delivery problem [1]. Approximately 80% of world population in developing countries depends on traditional medicines for primary healthcare and in modern medicine too, nearly 25% are based on plant derived drugs [2,3]. India is one of the world's 12 mega diversity, center having rich vegetation with 47,000 plant species and wide variety of medicinal plants along with tradition of plant based knowledge distributed among the vast numbers of ethnic groups.

There are many medicinally important species which are used to produce various types of drug and medicines to treat many ailments in India since the time of the Rig

Veda (approximately 2000 BC). India represents one of the great emporia of ethno medicinal to wealth and has enormously diversified living ethnic groups and rich biological resources. An appropriate dosage to prepare drug from different parts of the plant body are prescribed as a remedy to treat different kinds of diseases and disorders [4-6]. Menstruation, is the periodical flow from the uterus through the cervix and out through the vagina and it is called a 'period'. It occurs during the years between puberty and menopause [7]. Monthly menstrual periods are a normal part of a woman's life. It is essential for the renewal of the uterine lining in preparation for pregnancy. The menstrual cycle provides important body chemical, called hormones, to keep healthy. It also prepares body for pregnancy each month. A cycle is counted from the first day of first period to the first day of the next period. The average cycle is 28 days long. Cycles can range anywhere from 21-35 days in adults and from 21-45 days in young teen [8]. There are a number of

different menstrual disorders. It includes a range from heavy painful periods to no periods at all [9].

Menstrual bleeding cessation is one of the most frequent gynecologic disorders among women in reproductive stage. The treatment is based on hormone therapy. Oligomenorrhea and amenorrhea are one of the common gynecologic complaints among women in reproductive age. Oligomenorrhea and amenorrhea are changes in regular menstrual cycles which include long menstrual cycles and absence of menstruation, respectively [10]. Oligomenorrhea is a condition in which menstrual cycles are infrequent, greater than 35 days apart. It is very common in early adolescence and does not usually indicate a medical problem [11]. Amenorrhea is absence of menstruation. There are two categories: primary amenorrhea and secondary amenorrhea. Primary amenorrhea occurs when a girl does not begin to menstruate by age 16. Girls who show no signs of sexual development (breast development and pubic hair) by age 13 should be evaluated by a doctor. Any girl who does not have her period by age 15 should be evaluated for primary amenorrhea. Secondary amenorrhea occurs when periods that were previously regular stop for at least 3 months.

Hormonal therapy based on estrogen and progesterone compounds is the mainstay of the treatment for these conditions [12]. The treatment of oligomenorrhea and amenorrhea also includes lifestyle modifications (especially nutritional habits and diet, physical activities and sleep), medication and non-medical methods like wet and dry cupping and surgery. Herbal medications are one of the key tenets for treatment and can modify mal-temperaments of the organs [13,14]. The main cause of the oligomenorrhea and amenorrhea are the anatomical and functional disorders (mal-temperaments) in the uterus, ovaries and other organs aside from genital system [15]. Due to increasing request for alternative medicine remedies in the field of women's disease, in present study, it was tried to overview medicinal plants used to treat oligomenorrhea and amenorrhea.

Vitex-Agnus-Castus

It is a common medicine for the treatment of menstrual irregularities and infertility since 2000 years ago. This plant is very effective on the normalization of the menstrual cycle and the means of serum prolactin and free testosterone levels in the women with polycystic ovary syndrome were similar [16,17].

Trigonella-Foecum-Graecum

Trigonella-foecum-graecum (commonly known as fenugreek) traditionally used for gastrointestinal, pulmonary and gynecological disorders [18,19]. This medicinal plant has been found effective in regulation of menstrual cycles, improving fertility and reversing feature of PCOD syndrome by decreasing LH to FSH ratio and reversing the features of it [20,21]. Studies on fenugreek seeds in humans and animals demonstrate significant attenuation of glucose tolerance and improvement in the glucose-induced insulin response suggesting a potential hypoglycemic activity of fenugreek seeds [22-24]. Multiple human trials on fenugreek seeds also demonstrate potential efficacy in lowering total cholesterol in people with moderate atherosclerosis or insulin- or non-insulin-dependent diabetes. A human double-blind trial has demonstrated that defatted fenugreek seeds may raise the beneficial HDL cholesterol [25,26], whereas Prasanna, et al. have shown that two different doses of defatted fenugreek seed powder (25 or 50 g/day) significantly lower serum cholesterol after 20 days. A clinical trial on humans suffering from T2D using 15 g of powdered fenugreek seeds with meals reported a reduced rise in blood glucose after the meal.

Cinnamomum Verum

It is an evergreen plant and has aromatic characteristics. It is used as a condiment. This plant is known as a potent medicine to increase libido and regulate menstruation and is effective in treating brain and pulmonary diseases. It also has anti-inflammatory, antioxidative, antidiabetic and lipid lowering features [27]. It is known to increase serum progesterone level in luteal phase, so facilitating menstrual cycle regulation [28].

Leucas Aspera

Leucas Aspera is a wild herb or shrub, having medicinal value to a great extent and is available abundantly in field of India. It is easily available at a very low cost. It can be used in crude form as well as in extract form and also in the refined form as a medicine [29]. Leaves are most important part of the plant. One tea spoonful leaf juice mixed with honey is applied for 15-20 days in empty stomach used to treat amenorrhea and dysmenorrhea [30]. The juice from its leaves is used as an external application for painful swellings [31]. The flowers are given with honey to treat with coughs and cold in children [32]. The leaves are applied to the bites to serpents, poisonous insects and scorpion sting. The

extract of plant is used with honey in case of abdominal pain and also in digestion. The leaves are used as an insecticide and mosquito repellent in rural areas [33,34]. The juice of leaf is used as local application for psoriasis and chronic skin eruptions. It can be used as insecticidal also by sprays extract of the plant on other plants by mixing with water. It is also used in Gynaecological and obstetrical problem like hastening menstruation.

Mentha Longifolia

It is used in pharmaceutical and industrial fields. This medicinal plant has been used to treat gastrointestinal and gynecologic complaints for many years [19,35]. Mokaberinejad, et al. [36] reported that *M. 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, while side effects are least. It is a good option for cessation of menstruation. Syrup is a safe, well tolerated and effective choice in inducing bleeding and maintaining regular bleeding in women with secondary amenorrhea and oligomenorrhea.

Hibiscus Rosa Sinensis

Stem, bark and flowers are the important parts of the plant. Paste of stem bark (15ml) is given to women continuously for 7 days for abortion. Paste of flower bud (3gm) with country liquor (2ml) is given to women of 3 days of menstruation as a contraceptive. Paste of flower (3gm) along with cow milk cures menorrhagia, amenorrhea, menstrual diseases and uterine discharges when given 15 days continuously early in the morning. 6-8 fresh leaves grinds to paste and eaten daily morning. Dried root powder mixed with honey and stirred well until paste, then taken orally [37].

Petalium Murex

Seed powder is mixed with honey and taken orally in early morning daily. Small amount of leaves, making juice mixed with water and taken orally helps in amenorrhea. The extensive literature survey revealed that *Petalium murex* is important medicinal plant with diverse pharmacological spectrum. The plant shows the presence of many chemical constituents which are responsible for varied pharmacological and medicinal property. The evaluation needs to be carried out on *Petalium murex* in order to uses and formulation of the plant in their practical clinical applications, which can be used for the welfare of the mankind [38].

Sesamum Indicum

Yavari, et al. [39,40] reported that *S. indicum* may be an effective choice in inducing bleeding in women with oligomenorrhea. It has ignorable side effects compare to the current hormonal therapies. The seeds of *Sesamum* are an important source of oil, protein and carbohydrates. It is also an important source of active ingredients used in antiseptics, bactericides, viricides, disinfectants antitubercular agents [41,42]. *Sesamum* is rich in unsaturated fatty acids and antioxidants lignans, exemplified by sesamin, sesamol and sesaminol, which are also classified as phytoestrogens [43]. *S. indicum* L. was prescribed for patients at a dose of 60gm once daily before breakfast for 7 days. 60gm powdered sesame to be boiled in 400cc water for 4 minutes, then filtered, be mixed with a teaspoon of honey and be drunk warm [44]. Barbosa, et al. [45] suggested that sesame consumption could be a nutritional strategy to improve the aerobic capacity of soccer players and to reduce important markers of oxidative stress and muscle damage. The antioxidant defense system is known to inhibit or reduce the damage caused by ROS, 25 and antioxidants act either directly, neutralizing the action of ROS, or indirectly, participating in the enzymatic system. The studies using sesame oil or black sesame meal capsules have shown an increase in vitamin E levels, which is important to the antioxidant defense system [46-50]. Cardoso, et al. [51], reported the effect of dietary intake of seeds and sesame derivatives on lipid profile and blood pressure (BP) of hypertensive and dyslipidemic individuals of the 7 clinical trials included, five evaluating individuals with hypertension observed a significant reduction in systolic and/or diastolic blood pressure.

Butea Monosperma

B. monosperma is a sacred tree, called as a treasure of gods. The leaves are good, have astringent, depurative, diuretic and aphrodisiac in pharmacological properties. It stimulates and promotes diuresis and menstrual flow. Nadkarni and Nadkarni reported that flower decoction applied as poultice, they reduce inflammation and facilitate diuresis and menstrual flow. Parts used as medicine are bark, flower and gum. Tablets mixed with adequate water given early in the morning for 15 days. It cures vaginal diseases, leucorrhoea, amenorrhea, menstrual disorders and also causes temporary sterility. Flower is bitter, aphrodisiac, expectorant, tonic, emmenagogue, diuretic, and good in biliousness, inflammation and gonorrhoea. The dye is useful in enlargement of spleen. Flowers are depurative, as a poultice they are used to disperse swelling and to

promote menstrual flow. They are given to pregnant women in case of diarrhoea. It is also useful to prevent pus from urinogenital tracts of males. Flowers are crushed in milk and sugar is added, 3-4 spoons if drunk per day for a month helps to reduce body heat and chronic fever. Flowers are soaked in water overnight and a cup of this infusion is drunk every morning against leucorrhoea till cure [52,53].

In conclusion the objective of this study showed that all these plants are effective in inducing menstrual bleeding in women. Due to the beneficial effects of these herbal drugs, besides its safety, availability and low cost, these plants can be used as a good choice for the treatment of patients with oligomenorrhea and amenorrhea.

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