

Menstruation Phytotherapy According To Iran Ethnobotanical Sources

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Abstract

Menstruation (bleeding of uterine periods) is a natural, physiological process and part of the active life of young women around the world and most women of reproductive age experience it. Any disruption in the menstrual cycle can cause concern for women; thus it requires accurate assessment of the treatment. Menstrual disorders occur in different age groups in women. These disorders have differential diagnosis and therefore different diagnostic and therapeutic procedures depending on the age group. Attempts were made in this review study to introduce medicinal plants used in Iran Ethnobotanical resources used to treat menstrual disorders. The articles were searched using keyword, such as menstruation, Ethnobotanical, Iran and medicinal plants. Search was carried out in databases, such as ISC, SID, Magiran and a number of other local databases. Based on the results of this study sage, sumac, lion's tail, marjoram, fennel, nettle, yarrow, makhhlase, cumin, oregano, thyme, Peganum harmala, red clover, Asteraceae, Teucrium polium, etc. have been used in the treatment of menstrual disorders as medicinal herbs in Iran medicine. These medicinal herbs may be effective against menstrual disorders due to their bioactive substances and antioxidants and pave the way for the implementation of research on and production of natural medicines affecting menstrual disorders.

Keywords: Sexual dysfunction, Menstruation, Ethnobotany, Medicinal herbs

INTRODUCTION

Normal menstruation refers to uterine secretory endometrium period loss that occurs due to decreased production of estradiol and progesterone caused by Corpus luteum regression (1). Menstruation (bleeding of uterine periods) is a natural, physiological process and part of active life of young women around the world and most women of reproductive age experience it (2,3). Sudden discontinuation of sex steroids causes severe spasticity in spiral arteries and ultimately endometrial ischemia. At the same time, lysosomes are degraded and their proteolytic enzymes are released that in turn exacerbate local tissue damage, then the endometrial layer is shed (4). Any disruption in the menstrual cycle can be a cause of concern for women and requires careful assessment and treatment (5). Menstrual disorders occur in different age groups in women. Depending on the age, these disorders have differential diagnosis and therefore different diagnostic and therapeutic procedures. Menstrual disorders are quite common in adolescents, in particular during the first two years after menarche and many periods are anovulatory (6). Menstrual disorders include menstrual irregularities, dysmenorrhea, etc. (7). Medicinal plants have been always considered an easy source with low side effects for the treatment of various diseases (8-21). Medicinal plants are an important resource in the treatment of genital diseases. In addition to the therapeutic effects, medicinal plants were

used in the prevention and control of poisoning and medical and pharmaceutical errors by pharmaceutical companies (22-33). In this article attempts were made to introduce medicinal plants used in Iran Ethnobotanical resources used to treat menstrual disorders.

METHOD

The articles were searched using keywords, such as menstruation, Ethnobotanical, Iran and medicinal plants. Search was carried out in databases such as ISC, SID, Magiran and a number of other local databases.

RESULTS

Based on the results obtained from literature review on Iran ethnobotany in this study, it was found that a total of 34 medicinal plants native to Iran were used for treatment of menstrual disorders. Based on the results of this study sage, sumac, lion's tail, marjoram, fennel, nettle, yarrow, makhhlase, cumin, oregano, thyme, Peganum harmala, red clover, Asteraceae, Teucrium polium, etc. have been used in the treatment of menstrual disorders as medicinal herbs in Iran medicine. The medicinal plants affecting menstrual disorders treatment are shown in Table 1 based on the Iran's ethnobotanical resources

Table 1. Medicinal plants affecting menstrual disorders, according to ethnobotanical sources in Iran

Row	Scientific name	Family name	Persian name	Organs use	Therapeutic effect	Region
1	<i>Nepeta fassenii</i>	Lamiaceae	Pounehasa	Flowering shoot	Menstruation	Abadeh shiraz
2	<i>Salvia sp</i>	Lamiaceae	Maryam goli	Flowering shoot	Regulate menstruation	Abadeh shiraz
3	<i>Dorema amunicum</i>	Asteraceae	Vosha	Resin	Menstruation	Abadeh shiraz
4	<i>Rhus coriaria L.</i>	Anacardiaceae	Somagh	Fruit	Affect menstrual bleeding	Arasbaran
5	<i>Huniperus communis</i>	Cupressaceae	Piro	Fruit	Menstruation	Arasbaran
6	<i>Leonurus cardiaca</i>	Labiatae	Domeshir	Aerial parts	Menstruation	Arasbaran
7	<i>Origanum vulgare</i>	Labiatae	Marzanjoush	Flowering shoot	Menstruation	Arasbaran
8	<i>Salvia sclarea L.</i>	Labiatae	Maryam goli	Flowering shoot	Influencing the delay in menstruation	Arasbaran
9	<i>Satureja hortensis</i>	Labiatae	Marzeh	Flowering shoot	Stop menstruation	Arasbaran
10	<i>Ballota nigra</i>	Labiatae	Anjideh siah	Flowering shoot	Menstruation	Arasbaran
11	<i>Sorbus boissieri</i>	Rosaceae	Tis	Fruit	Menstruation	Arasbaran
12	<i>Urtica dioica L.</i>		Gazaneh	Leaf	Menstruation	Arasbaran
13	<i>Achillea millefolium</i>	Asteraceae	Boumadaran	-	Menstrual disorders	Babol
14	<i>Cicer kermanenses</i>	Lamiaceae	Nokhod kermani	Seed and Fruit	Menstrual disorders	Joupar kerman
15	<i>Tanacetum parthenium</i>	Asteraceae	Mokhalaseh	Flower	Menstrual disorders	Khuzistan
16	<i>Parietaria judaica L.</i>	Urticaceae	Goushmoush afshan	Aerial parts	Menstruation	Dastena
17	<i>Achillea eriophora</i>	Asteraceae	Boumadaran jonoubi	Flowering shoot and Laef	Menstrual pain	Sirjan kerman
18	<i>Cuminum cyminum</i>	Apiaceae	Zireh sabz	Seed	Amenorrhea	Sirjan kerman
19	<i>Salvia macrosiphon</i>	Lamiaceae	Merik golelouhehi	Seed and Root	Treatment of menstruation	Sirjan kerman
20	<i>Foeniculum vulgare</i>	Apiaceae	Razianeheh	Leaf and Seed	Menstruation	Sistan
21	<i>Ducrosia anethifolia</i>	Apiaceae	Moshgag	Inflorescence	Regulate menstruation	East of Persian golf
22	<i>Ducrosia anethifolia</i>	Apiaceae	Moshgag	Flower	Regulate menstruation	Fasa
23	<i>Achillea wilhelmsii</i>	Asteraceae	Boumadaran	Aerial parts	Regulate menstruation	Fasa
24	<i>Marrubiumsupinum L.</i>	Lamiaceae	Pouneh kouhi	Flowering shoot and Laef	Menstruation	Fasa
25	<i>Thymusdaenensis</i>	Lamiaceae	Avishan	Laef	Menstruation	Fasa
26	<i>Peganumharmala L.</i>	Zygophyllaceae	Espan	Aerial parts	Dysmenorrhea	Fasa
27	<i>Heliotropium brevilimbe Boiss.</i>	Boraginaceae	Aftabparast	-	Menstruation	Kazeroun
28	<i>Prosopis farcta</i>	Papilionaceae	Shabdar ghermez	-	Menstruation	Kazeroun
29	<i>Senecia vulgare</i>	Composite	Pirgiah	Aerial parts	Menstruation	Kazeroun
30	<i>Achillea santolina</i>	Asteraceae	Berenjdas	Flowering shoot	Dysmenorrhea	Mobarakeh Isfahan
31	<i>Valeriana officinalis L</i>	Valerianaceae	Sonboloteib	Roots and shed	Dysmenorrhea	Mobarakeh Isfahan
32	<i>Cuminum cyminum L.</i>	Apiaceae	Zireh sabz	Fruit	Dysmenorrhea	Mobarakeh Isfahan
33	<i>Salvia nemorosa L</i>	Lamiaceae	Maryam goli	Leaf	Dysmenorrhea	Mobarakeh Isfahan
34	<i>Teucrium pollium L.</i>	Lamiaceae	Kalpoureh	Leaves, flower and Seed	Menstruation	Hormozgan

DISCUSSION

The use of medicinal plants for medical complications has been one of the treatment strategies since ancient times (34-40). Based on the results of this study sage, sumac, lion's tail, marjoram, fennel, nettle, yarrow, makhlah, cumin, oregano, thyme, Peganum harmala, red clover, Asteraceae, Teucrium polium, etc. have been used in the treatment of menstrual disorders as medicinal herbs in Iran medicine.

The mechanisms of these plants on this problem are not clear. Menstrual disorders are very diverse, such as dysmenorrhea, amenorrhea, increasing amount or timing of menstrual bleeding or decreasing menstrual cycle length. Menstrual disorders occur at any age and for any reason and cause anxiety among women and young girls because they set the alarm for the existence of a problem in the body. These problems are caused for various reasons, including infection, IUD, stress, ovarian cysts, malnutrition, cancer, hormonal disorders, drug use and pregnancy and a number of other causes. Various disorders associated with the menstrual flow showed a low level of health of a woman and toxic conditions of her sexual organs caused by wrong habits of living, especially wrong food habits (5,6). The etiopathogenesis of menstrual disorders depends on the determined causes. There are two types of menopause include physiologic and artificial. Physiological causes of menopause are due to lack of oocytes in the ovary or the lack of response of oocytes to the ovarian gonadotropins. Low level of estrogen causes inactivation of the cells of these tissues, causing spontaneous menstrual cessation before the age of forty (premature menopause). Artificial menopause which causes permanent cessation of ovarian activity is usually resulted from radiotherapy or surgical removal of ovaries (40). Medicinal plants usually alleviate the estrogen level or decrease menopausal symptoms such as hot flashes or heat waves. Hot flashes are seen in more than 80% of women who enter the menopausal period. Hot flashes has some accompanying symptoms such as feeling of warmth or burning in the head, neck and chest, feeling a high pressure on the skull, headache, dizziness, palpitations and insomnia, fatigue and irritability which might these plant have beneficial effects on them. Medicinal plants may alleviate one or some symptoms of menopausal syndrome or increase the possibility of menstruation. Menopausal syndrome is also associated with increase in oxidative stress (40,41).

Most of the plants presented in this article have antioxidant activities (21-33). Hence these plant might have beneficial effects in menopausal syndrome by decreasing oxidative stress. There are a lot of plants which have phenolic compound (42-54). These plants, especially the ones with flavonoid compounds usually have antioxidant activities (55-64). These plants can scavenge free radicals and reduce oxidative stress (65-74). Therefore, the plants with these properties may also be effective in menstruation and reduction of menopausal syndrome. These plants have also other beneficial effects which patient may benefit (75-79).

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