



Review Article

POTENTIAL USE OF *SARACA ASOCA* IN THE MANAGEMENT OF *ARTAVADUSHTI* W.S.R. TO
MENSTRUAL DISORDERS IN MODERN ERA

Sushma^{1*}, L.P. Yadava²

*¹Associate Professor, Department of Prasuti evam Streeroga, IAMS, Lucknow, Uttar Pradesh, India.

²Assistant Professor, Department of Horticulture, CBG Ag. PG College, Lucknow, India.

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ABSTRACT

Progress of a family depends on health of women in the family because she is the only creature who has amazing power of creation. A woman suffers from various menstrual disorders (*Artavadushti*) in her life span. *Ashoka* (*Saraca indica* or *Saraca asoca* (Roxb.), belonging to the family Caesalpinioideae, is one of the most important herb extensively used in bleeding disorders in women throughout her active reproductive period. *Ashoka* means no grief in Sanskrit language. So it is also called as “friend of women” because it has reputation of its bark for retaining a woman healthy and youthful. Chemically, it contains glycosides, flavonoids, tannins and saponins. Its actions are spasmogenic, uterotonic, oxytocic, antibacterial, antitumour, anti-implantations, anti-progestational and anti-estrogenic to fight against menorrhagia, leucorrhoea and anticancer. In view of these properties and also its *Rasa, Guna, Veerya, Vipaka* it can be used in the treatment of bleeding gynaecological diseases.

INTRODUCTION

Menstruation (*Artava*) is the monthly shedding of the lining of a woman’s uterus (more commonly known as the womb). The synonyms of menstruation are menses, menstrual period, cycle or period. The menstrual blood, which is partly blood and partly tissue from the inside of the uterus flows from uterus through the cervix and out of the body through the vagina. According to the ancient texts known as the Charaka Samhita, the menstrual cycle should be regular and between twenty-seven and thirty days long. The bleeding should be bright red and should be washed easily out of fabrics without staining. There should be no pain. The cycle should last between three and seven days and should be continuous rather than stopping and starting. The average age of menarche (first onset of menstruation in girls) in females is 12 years.

However, girls can begin menstruating as early as 8 years of age or as late as 16 years of age. Women stop menstruating at menopause, which occurs at about the age of 50. Menopause is a condition when a woman stops menstruating and production of eggs. The term Menopause stands for one year without menstrual cycle or periods, and after this time woman will no longer become pregnant. Menstrual sanitation is one of the most important health issues worldwide. In our country, approximately 70% reproductive diseases are due to poor menstrual sanitation. There are 355 million women of reproductive age in India who need mechanisms and structures in place to meet their menstrual needs. According to the report findings of the 18 countries studied, India ranks alarmingly low when it comes to healthy menstrual cycles and stands at the bottom of the pile. Irregular menstrual cycles are observed in approximately 50% of women in India. Irregular cycles are a major cause of concern for women, which if untreated, often lead to other health issues such as infertility, PCOS (Polycystic Ovarian Syndrome), Anaemia etc.^[1] Simultaneously, various studies reported that over 20% of Indian women suffer from PCOS. Comparatively, women in South American countries (more than 64%) have the healthiest cycles with Chile, Argentina and Brazil taking Lead. The report also indicates that in India, over 68% women

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have severe Menstrual period-related symptoms such as cramps, tiredness, and bloating of the various symptoms, over 47% users reported having cramps. Around 49% women reported being tired and 28% women complained of being bloated during their cycles. Mood swings are observed at some point in menstrual cycle of almost all the cases.

Artavadushti (menstrual disorders) refers to health conditions that affect a woman's normal menstrual cycle. From heavy periods to irregular periods, women can experience many different gynaecological issues relating to their monthly cycle. Doctors treat or manage menstrual disorders based on the cause and the signs and symptoms being experienced by the patient. Ayurveda categorizes menstruation on the basis of person's constitution viz. for *Vata-prakriti* woman, the menstrual cycle is accompanied with pain due to constriction of blood vessels caused by excess *Vata* resulting in *Sheeta* (coldness) and *Khara* (roughness) properties. This obstructs the free flow of *Vata*, and hence, painful menstruation. For *Pitta-prakriti* woman, the menstrual cycle comprises heavy bleeding associated with swollen breasts. For *Kapha-prakriti* woman, the menstrual flow is heavy, with clots in the menstrual blood.

The earliest chronicled mention is in the Ayurvedic treatise, the *Charaka Samhita* (100 A.D.), in which *Asoka* is recommended in formulations for the management of pain with relation to uterus (gynaecological) as *Anodynes*^[2]. All the plant parts of *Ashoka* tree are considered to contain medicinal properties. It possesses various activities such as analgesic, antipyretic, anthelmintic, antidiabetic, fungitoxic, larvicidal activity, anti-microbial activity, CNS (Central Nervous System) depressant activity, antiulcer activity, anti-inflammatory activity etc. It is used as spasmogenic, oxytocic, uterotonic and antibacterial, anti-implantation, anti-tumour, anti-progestational, anti-estrogenic activity against menorrhagia and anti-cancer agent.^[3-8]

Causes of menstrual cycle irregularities: Menstrual cycle irregularities can have many different causes, including

- **Pregnancy or breast-feeding:** A woman with missed period may have an early indication of pregnancy. Breast-feeding usually delays the reappearance of menstruation after pregnancy. This is called Lactational amenorrhoea.
- **Eating disorders, extreme weight loss or excessive exercising:** Eating disorders resulting in anorexia nervosa, extreme weight loss and increased physical activity can disturb menstruation.
- **Polycystic Ovarian Syndrome (PCOS):** An irregular periods as well as enlarged ovaries may

have occurred in women with common endocrine system disorder that contain small collections of fluid called follicles, located in each ovary as seen during an ultrasound test.

- **Premature Ovarian Failure:** Normally premature ovarian failure denotes the loss of normal ovarian function before the age of 40 years. Women who have premature ovarian failure, otherwise called as primary ovarian insufficiency, might have irregular periods for years.
- **Pelvic Inflammatory Disease (PID):** It causes irregular menstrual bleeding in women.
- **Uterine fibroids:** These are noncancerous growths of the uterus and can cause heavy menstrual periods and prolonged menstrual periods.

Types of Menstrual Disorders

Menstrual disorders are of four main types. These are:

1. **Amenorrhea:** This is the absence of periods. Amenorrhea occurs when a female does not experience a period by age 16, or when a woman does not get her period for at least three months.
2. **Oligomenorrhea:** This term refers to infrequent menstrual periods.
3. **Abnormal Uterine Bleeding:** There is heavy menstrual bleeding or spotting/bleeding that occurs between periods.
4. **Dysmenorrhea:** This refers to painful periods, including severe menstrual cramps. Dysmenorrhea may cause other symptoms, such as nausea, diarrhoea and headache, vomiting and lower back pain.

Menstrual Cycle Problems

In females the menstrual cycle is referred as hormone controlled. Its timing of onset is controlled by the hypothalamus, pituitary gland as well as the ovaries. The pituitary gland releases Luteinizing Hormone (LH) and Follicle Stimulating Hormone (FSH). This pituitary gland in turn gets stimulated by Luteinizing Hormone Releasing Hormones (LHRH) from the hypothalamus. Both the hormones viz. LH and FSH control follicle stimulation in the ovary in women. Two Hormones progesterone and oestrogen are produced in the ovaries. The balance of all these hormones regulates the menstrual cycle. The menstrual cycle consists of three phases. These are: follicular/proliferative phase, the ovulatory phase, and the luteal/secretory phase. Irregular menstrual cycles are treated by hormonal tablets that are used for hormonal therapy or birth control pills are prescribed. Women with irregular menstrual cycles caused due to fibroids, polyps, cysts, PCOS or endometriosis, are treated accordingly. If a woman approaches menopause (the cessation of menstruation) then, there is a possibility of facing problems called a menopausal syndrome. The periodic cycle becomes unpredictable.

The woman suffers from problems like hot flushes, fatigue, sudden sweating, headaches, mood swings, loss of libido, weight gain, fuzzy thinking, sleep problems and muscular pain. Menopausal problems are resolved by low dose hormonal birth control pills. This regulates menstruation and will avoid sudden lows and spikes on hormone levels. Hormone Replacement Therapy (HRT) also supports in the management of such cases. In case of vaginal dryness, vaginal lubricants and topical hormones are suggested. Antidepressants are used to cure Mood complications.

Management of Menstrual Irregularities

Management of a menstrual disorder is based on the type of condition and its symptoms in females. Usually lifestyle changes can resolve the problems of stress; weight or excessive exercises are supposed to be causing menstrual disorder. The use of oral contraceptives or hormonal therapy may be prescribed to the woman who experience infrequent menstruation. Hence the treatment for abnormal uterine bleeding may include hormone therapy, endometrial ablation, dilation and curettage (D&C) or hysteroscopic measures to remove polyps that may be causing symptoms. The treatment of dysmenorrhea depends on the underlying cause of the same. Regular use of oral contraceptives, along with non-steroidal anti-inflammatory drugs, may be sufficient in relieving mild cases. In cases of pain, caused by the conditions, such as endometriosis or fibroids, then non-surgical or minimally invasive procedures can be advised. The management of menstrual irregularities often changes based on the type of irregularities and definite lifestyle factors, such as if the woman is planning to conceive.

The menstrual irregularities that are due to an ovulatory bleeding (absent periods, infrequent periods, and irregular periods)^[9,10] can be managed by including.

- Oral contraceptives
- Cyclic progestin
- Treatments for an underlying disorder that is causing the menstrual problem, such as counseling and nutritional therapy for an eating disorder.
- Treatment for menstrual irregularities that are due to ovulatory bleeding (heavy or prolonged menstrual bleeding) includes.^[11,12,13]
- Insertion of a hormone-releasing intrauterine device.
- Usage of various prescriptions (such as those containing progestin or Tranexamic acid) or non-steroidal anti-inflammatory medications.

If the cause is structural or medical management is ineffective, then the following may be deliberated:

- Surgical removal of polyps or uterine fibroids

- Uterine artery embolization, a procedure to block blood flow to the uterus.
- Endometrial ablation, a procedure to cauterize (remove or close off by burning) blood vessels in the endometrial lining of the uterus.
- Hysterectomy

Management of dysmenorrhea (painful periods)

[14]: It can be treated

- By applying heating pad to the abdomen.
- By taking non-steroidal anti-inflammatory medications.
- By taking oral contraceptives, including injectable hormone therapy or birth control pills, using varied or less common treatment protocols.

Management of Menstruation using *Saraca asoca*

Ashoka, known as queen of herbs, is exploited for the female reproductive system. The word '*Ashoka*' literally means 'the remover of sorrows'. It is an important Ayurvedic herb used mainly in bleeding gynaecological conditions. A traditional drug *Asokarishta* used for the treatment of menorrhagia is originated from *Saraca indica*.^[15] *Asokarishtam* (*Ashokarishta*) is an effective Ayurvedic medicine (Uterine Tonic) used for the treatment of all gynaecological disorders like premenstrual syndrome (PMS), post-Menopausal Syndromes, leucorrhea, amenorrhea, oligomenorrhea, and dysmenorrhea. It is beneficial in menstrual problems and their associated symptoms like painful and heavy bleeding, mood swings, depression.

For the effective management of irregular periods, the decoction made from the bark of *Ashoka* tree is used. This decoction is prepared by using 10 grams of the bark of *Ashoka* tree, boiled in 2 cups of water until about one cup of *Kwatha* remains. Honey or jaggery can be added to the decoction to make it palatable to drink.^[16]

Secondary metabolites like flavonoids, terpenoid, lignin, phenolic compounds, tannins, and so forth are reported from *Saraca indica* stem bark extracts and found responsible for their therapeutic action.^[17-23]

The extracts of *Saraca asoca* are observed as the key ingredient in Ayurvedic medicine for treating various diseases. It helps to treat various gynaecological and menstrual problems in women such as heavy, irregular and painful periods. It can be used orally in the form of *Churna*/powder or capsule, twice daily after meals. In this way women get relief from abdominal pain and spasms. Taking *Ashoka* bark juice or *Kwatha* can also promote healthy skin due to its blood purifying property. *Ashoka* has been traditionally used in Indian Ayurveda as a uterine tonic and has been indicated in menstrual irregularities especially in DUB (Dysfunctional Uterine Bleeding). *Ashoka* happens to be a uterine stimulant and

increases uterine contractions. It also stimulates the ovarian tissue. A proprietary Ayurvedic medicine manufactured by Sandu Pharmaceuticals Limited, Mumbai 'Ashoka Compound' is a synergy of therapeutic herbs for utero-ovarian system.^[24] Some of the extracts used for treating specific conditions are: Ashoka Bark, Ashoka Flowers, and Ashoka seeds.

The Bark

- Ashoka is considered particularly effective for female infertility and endometriosis.
- The chemical components present in the bark are very beneficial in managing several gynaecological conditions in women, especially irregular menstruation and abnormal vaginal discharge.
- It alleviates abdominal pain, menstrual cramps, and excessive bleeding associated with menstruation.
- Its decoction helps to treat dyspepsia (indigestion), fibroids, cysts, severe diarrhoea and haemorrhoids or piles.

Flowers

- For improving skin complexion, dried flower extract of Ashoka is used widely.
- It acts as blood cleanser and also eliminates toxins from the body.
- *Saraca asoca* is extensively used for preventing skin allergies and several skin diseases, such as scabies.
- In order to cure internal bleeding, syphilis (a type of sexually transmitted disease), diabetes, and severe diarrhoea, we use dried flower extract of

Ashoka mixed with the water. After proper mixing it is taken orally.

Seeds and Leaves

- The powder made from dried seeds of Ashoka is helpful in treating bone fractures and bladder stones.
- In the management of the symptoms of asthma, it is advised to consume betel leaves with Ashoka seed powder extract wrapped in it.
- The tonic extracted from the leaves of the *Saraca asoca* tree is used to prevent blood loss in the stools and helps in removing worms from the stomach and reduces abdominal pain and inflammation.
- Besides these uses, it is also effective in the treatment of arthritis, difficulty in urination, ulcers, arrhythmia (irregular heartbeat), blood disorders, cancer, depression, and other health conditions.

Dosage of Ashoka

- Syrup- 10 to 15ml
- Seed powder- 1 to 3grams
- Flower powder- 1 to 3grams
- Bark decoction-15 to 30ml

DISCUSSION

Ashoka has been categorized by Acharyas as under Acharya Charaka in Charaka Samhita- *Kashayaskanda* (Herbs that are astringent in taste) *Vedanasthapana* (Herbs that are good in relieving pain) Maharshi Sushruta in Sushruta Samhita- *Lodhradigana* Vagbhata describes Ashoka in *Rodhradivarga*

Properties of Ashoka

Hindi/Sanskrit name			English name	
1	Rasa	Kashaya, Tikta	Taste	Astringent, Bitter
2	Guna	Laghu, Ruksha	Physical Property	Light, Dry
3	Veerya	Sheeta	Potency	Cold
4	Vipaka	Katu	Undergoes pungent taste conversion after digestion	Pungent

Effects of Ashoka on Doshas- It balances *Kapha* and *Pitta Doshas*

Dosha	Effects
Vata	Alleviate
Pitta	Balance
Kapha	Pacifies

On the basis of properties of Ashoka, it helps in conception, uterine endometrium, ovarian- stimulant, strengthens uterine muscles, and reduces uterine discharge and uterine pain.

CONCLUSION

Thus it may be concluded that the extract of bark of *Saraca asoca* has potential in managing irregular menstruation and anomalous vaginal discharge, especially several gynaecological conditions in women.

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***Address for correspondence**

Dr. Sushma

Associate Professor,
 Department of Prasuti evam
 Streeroga, Lucknow (UP).
 Email: sushmadoctor@yahoo.com