

Menstrual Disorders in Adolescence

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Abstract: In teenage girls, menstrual abnormalities are rather prevalent. Particularly in the first few years after menarche, periods can be irregular, heavy, and/or painful. Serious pathology is uncommon, but menstruation disruption can have a big impact on daily life and cause absences from school. Although the evidence supporting their usage is extrapolated from adult data, there are numerous therapeutic alternatives that are safe to use in adolescents. We give a clinical evaluation of current practice, including how girls with additional medical issues and learning disabilities are managed.

Keywords: Menstruation, menstrual disorder, Dysmenorrhea, symptoms of menstrual Disorder, medicinal plant

I. INTRODUCTION

Sectional survey, 25% of girls reported significant menstruation disruption that interfered w Adolescent girls frequently complain about menstrual problems. According to an Australian cross-it daily activities and forced them to miss school Periods can be unpleasant or heavy (menorrhagia) and menstrual cycles can be unpredictable (dysmenorrhoea). [1] Age-related improvements in menstrual periods and serious pathology are both infrequent. [2] Reassurance and general counsel, such as the proper use of easy analgesics, can frequently manage symptoms. Referrals to specialists are typically not necessary because general practitioners are well-positioned to provide this type of care. But occasionally, advice from a pediatrician or adolescent gynecologist may be required. These situations would include those in which the girl is unable to benefit from simple measures.

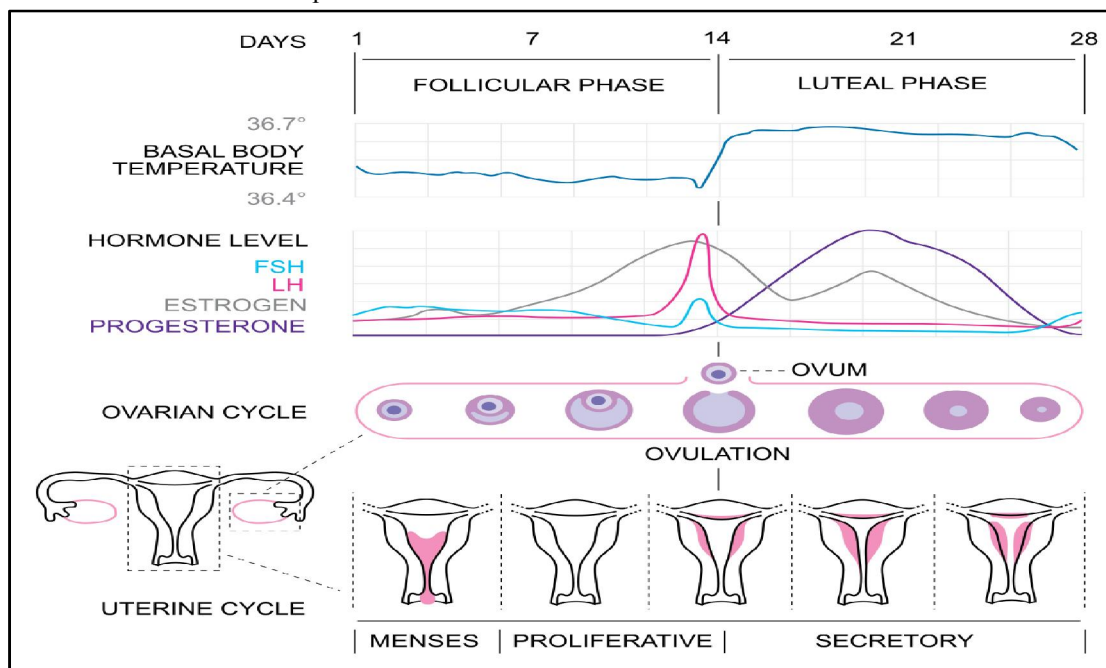


Fig no.1 Menstrual cycle

Through a sequence of physiological changes that occur during the menstrual cycle, the uterus and ovaries of the female reproductive system enable conception. Along with controlling egg development and release, the ovarian cycle also controls the cyclical release of progesterone and estrogen. The womb's (uterine) lining, which will house an

embryo, is prepared and maintained according to the uterine cycle. These contemporaneous and synchronized cycles persist for around 30 to 45 years, with an average duration of 28 days, but they can last up to 35 days.

The cyclical rise and fall of follicle stimulating hormone, a naturally occurring hormone, stimulates the development and growth of oocytes (immature egg cells), which in turn drives the cycles. The uterine lining is stimulated by the hormone estrogen.[3]

Cycles and Phase

The course of the menstrual cycle and certain hormones involved in it

The menstrual cycle consists of both the uterine and ovarian cycles. The ovarian cycle addresses changes that occur in the ovary follicles, while the uterine cycle describes changes in the endometrial lining of the uterus. Phases can be divided into the two cycles. While the ovarian cycle alternates between the follicular and luteal phases, the uterine cycle consists of menstruation, the proliferative phase, and the secretory phase. The menstrual cycle is regulated by the anterior pituitary gland at the base of the brain and the hypothalamus in the brain. Follicle-stimulating hormone (FSH) and luteinizing hormone (LH) are released by the anterior pituitary, which is next to the hypothalamus, in response to gonadotropin-releasing hormone (GnRH). GnRH before to adolescence

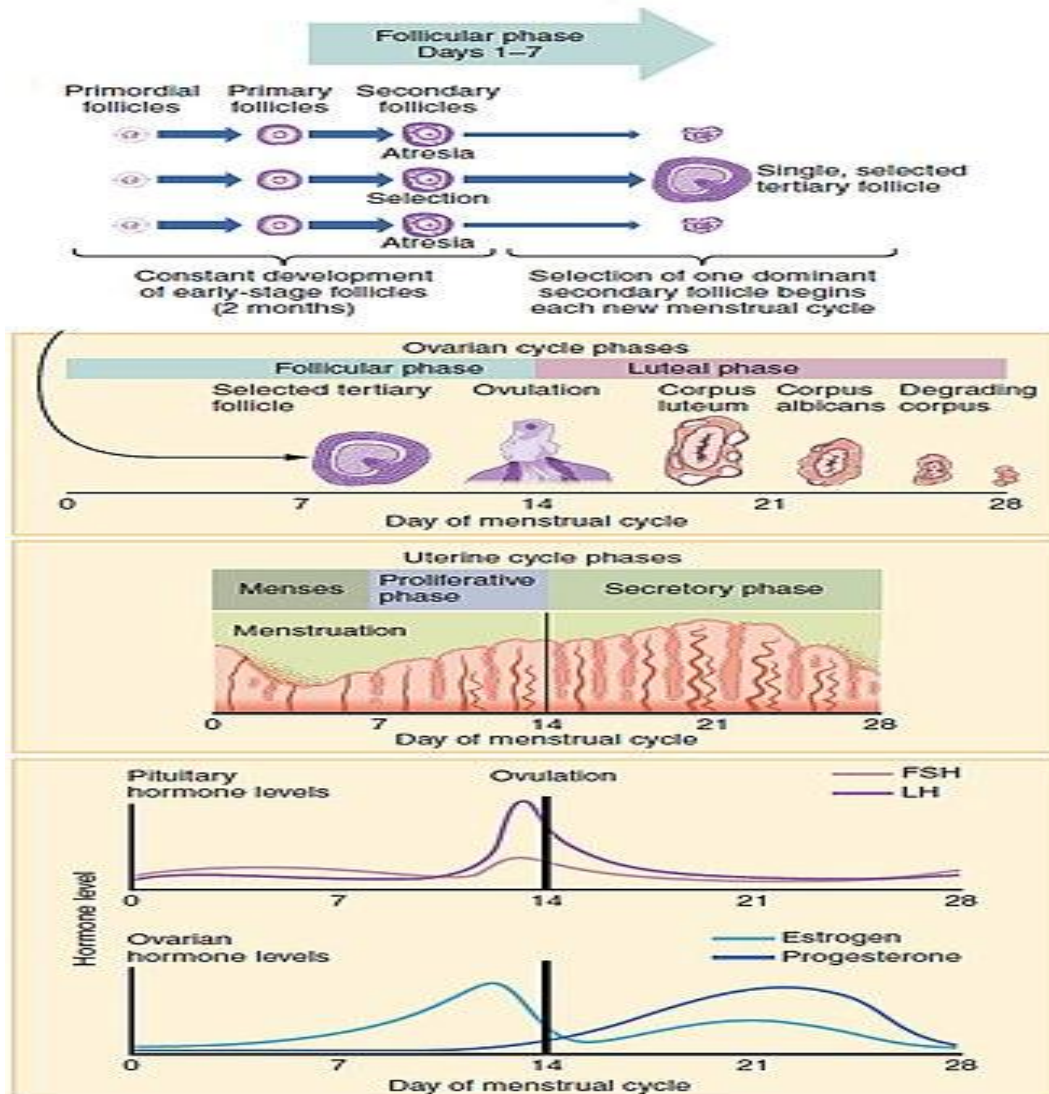


Fig 2: Progression of the menstrual cycle and some of the hormones contributing to it

The length of a menstrual cycle, measured from the first day of one period to the first day of the next, varies but has a median length of 28 days. A woman's cycle is frequently less regular at the start and end of her reproductive life. At puberty, a child's body starts to develop into an adult body capable of sexual reproduction. The first period (called menarche), which starts at around age 12, lasts for roughly 30-45 years. At menopause, which typically occurs between the ages of 45 and 55, menstrual cycles come to a stop [4,5]

Normal Menstrual Cycles

The length of the menstrual cycle varies from woman to woman, but the average is to have period every 28 days. Regular cycles that are longer or shorter than, from 23 to 35 days, are not normal. [6]

Age of Menarche The median age of menarche in well-nourished populations in developed countries has remained remarkably consistent, ranging between 12 and 13 years, despite differences around the globe and within the U.S. population. The median age of menarche has not changed significantly over the previous 30 years, according to the U.S. National Health and Nutrition Examination Surveys, with the exception of the non-Hispanic black population, whose median age at menarche is 5.5 months earlier than it was 30 years ago. Studies have shown that a higher gain in body mass index during childhood is related to an earlier onset of puberty that may result from attainment of a minimal requisite body mass index at a younger age [7]. The timing and course of puberty can be influenced by environmental factors like as diet, socioeconomic status, and access to preventive healthcare. Menarche normally happens at Tanner stage IV breast development, 2-3 years following thelarche (breast budding), and seldom before Tanner stage III development. 98% of girls will have menarched by the time they are 15 years old. Any teenage girl who has not attained menarche by the age of fifteen or within three years of thelarche should have her primary amenorrhea evaluated. Evaluation is also necessary if breast development is absent by the age of 13 [8].

Menstrual Disorder:

There are many different menstrual disorder. problems can range from heavy painful periods to No periods. There are many variations in menstrual patterns, but in general women should be concerned when periods come fewer than 21 days or more than 3 months apart. If they last more than 10 days. such conditions may indicate ovulation problem and other medical conditions. [9]

1] Dysmenorrhea (painful cramps)

It is pain occurs in the lower abdomen but can spread to the lower back and thighs.

Dysmenorrhea is severe, frequent cramping during menstruation. Dysmenorrhea is usually referred to as primary or secondary.

- **Primary dysmenorrhea**- primary dysmenorrhea is a cramping pain caused by menstruation. they are more severe during heavy bleeding. The cramp occurs from contractions in the uterus.

- **secondary dysmenorrhea**-secondary dysmenorrhea is a menstrual related pain that causes another medical or physical condition, such as uterine fibroid [10]

2] Menorrhagia (Heavy Bleeding)

Menorrhagia is menstrual flow that is longer and is heavier than normal. The bleeding occurs during periods. It usually lasts more than 7 days and women lose an excessive more than 80 ml amount of blood.

3] Amenorrhea (Absence of menstruation)

- primary Amenorrhea occurs when a girl does not begin. Amenorrhea is the absence of menstruation. they are two types

A: Primary amenorrhea

B: Secondary amenorrhea

This is caused by the time when menstruation stops. Menstruate by age 16. Any girl who does not have her period by age 15 should be evaluated for primary Amenorrhea

- Secondary amenorrhea occurs regular stop for at least 3 months.

4] Oligomenorrhea

Oligomenorrhea is a condition in which menstrual cycle greater than 35 days. It is very common in early adolescence and they do not usually have a medical problem [11]

Causes of painful menstrual cramp

•Hormonal imbalance:

One of the most typical reasons of menstruation cramps is a hormonal imbalance.

The hormones prostaglandins, which are similar to chemicals, cause contractions in uterine muscles, which additionally results in pain. The greater the degree of the more intense the prostaglandin reaction, cramps during menstruation are likely to be a problem [12]

•Pelvic Inflammatory Disease (PID)

It affects the female reproductive system and is a sickness or infection. PID is among the most severe types of problems from a sex-based infection illness in women: It may result in irreparable harm that cannot be repaired the fallopian tubes, ovaries, or other organs of the female reproductive system. The key reason for cramping is an avoidable factor in women's infertility [13]

•Endometriosis

A very painful medical ailment known as endometriosis occurs, when the tissues that should line the uterus' walls become inflamed. become implanted in different bodily regions, primarily the pelvic tissues and fallopian tubes and ovaries also contribute to menstruation issue. [14]

Few symptoms of menstrual disorder:

Lethargy, fatigue, and exhaustion were the three symptoms most frequently experienced on both days, i.e., the day before and the first day of menstruation.

First, melancholy, then difficulty communicating focus on your task (third), then any other options

Symptoms include nausea, excessive vomiting, and loose stools, increased sweating, and urinary frequency, dizziness, and loss of hunger, mood changes, and uneasiness. A problem related to menstruation problem.

Anemia (Reduction in red blood cell)

Red blood cell decrease is known as anemia. The most typical cause of anemia in premenopausal women is menorrhagia. Loss of blood greater than 80 mL, or roughly three tablespoons per menstrual cycle may ultimately result in anemia. Anemia is typically mild. However, even slight anemia can lower weariness caused by blood oxygen transport and a decreased ability physically. Moderate to severe anemia can result in breathing, an accelerated heartbeat, dizziness, headaches, tinnitus (ear ringing). [15]

Infertility

Important disorders that cause excessive bleeding include endometriosis, fibroids, and irregular ovulation factors that cause infertility. Several circumstances can result in amenorrhea, like ovulation polycystic ovary and anomalies also lead to infertility condition. [16]

Benefits of Aroma therapy for painful menstrual cramp:

Hot compresses or essential oil massage mixes are additional methods for treating period cramps. The massage with essential oils every day in between phases lead resulting in a substantial reduction in the number of days of period pain. The best are highlighted below. Cramp relief using aromatherapy.

• Heat

The simplest method for reducing menstrual cramps is to apply heat to the lower abdomen. Heat aids in relaxing the constricting the uterine muscles. As an alternative, a heating pad placed over the bottom lower back and abdomen, or alternatively utilize a plastic bottle with hot water in it. Then use heat therapy until the discomfort is reduced [17]

Lavender oil essential oil, which is prepared by distilling the flower spikes of specific lavender species (*Lavandula latifolia*), can alleviate stress, despair, and discomfort while menstruating. [18]

• Sweet Marjoram (origanum marj or anal Lamiaceae)

This oil also works wonders for reducing the pain associated with menstruation cramps on all levels. Use it in conjunction with a hot compress for best results.

On the stomach during menstruation cramps occur. [19]

• **German chamomile**

(Matricariachamomilla; Asteraceae)

The most notable property of German chamomile oil is its anti-inflammatory properties. The vivid blue hue of this oil is a result of the Azulene is present. It also hurts a little. Minimizing effects and encouraging calmness Lowers tension, rage, impatience, and Depression, which is widespread Signs and symptoms of menstruation [20]

Physical activity for menstrual disorder:

Regular physical activity is crucial for fostering the body's qi flow. Lack of exercise might make symptoms more severe and the length of the symptoms that Dysmenorrhea. Along with a regular A regular exercise program, good movement the emotions can be balanced via meditation. Lessen stress, make the organs stronger, and Control menstruation. routine workout, Involving physical activity before and after your period can and will lessen PMS symptoms. The menstrual cycle's severity Cramping. Swimming helps reduce stress. Decrease cramping and increase menstrual flow. [21]

• **Daily requirement of nutritional supplements for menstrual disorder:**

A] Vitamin A–Vitamin A is a crucial component for teenage growth and development and promotes healthy endometrial growth. Women who experience regular menstruation loss seem to have substantially higher vitaminA levels than women with Menorrhagia. Menstruating women experience excessive bleeding Vitamin A was administered. [22]

B] Magnesium-

Magnesium supplements lessen the discomfort, irritability, mood fluctuations, melancholy, and fluid retention associated with PMS. Magnesium aids in the relaxation of smooth muscle. It has been demonstrated to significantly lessen menstrual cramps. [23]

C]Geletin–is a fantastic source of phosphate, calcium, and magnesium. It helps to maintain healthy digestion and hormone production. It's helps of sooth information, especially joint.[24]

• **List of common herbs used in uterine disorder:**

1] Red raspberry –

Scientific name-Rubusidaeus ; Rosaceae

Parts use -leaf

Method of used-Make a pot of strong raspberry leaf tea and add some orange juice to it. If pain is present, consume 3 cups of this mixture each day while menstruating.[25]

2] Cinnamon–

Scientific name-cinnamomumzeylanicumj.presl; Leuraceae

Part of used-Bark

Method of use- Taking cinnamon, a spicy and aromatic herb, as an infusion or as part of an herbal tea blend up to 1 g three times per day is recommended. Dosage of 2-4 ml, three times per day. [26]

3] Fennel-

Scientific name-cinnamomumzeylanicumj prrs;l;Lauraceae

Part of use-seed

Method of used-Four grams of fennel seeds are added to a cup of boiling water, and the mixture is simmered for five minutes on low heat before being withdrawn from the heat and strained. Tea, honey, and well combine. Take this herbal tea. Starting three days in advance, two cups of tea per day the anticipated start time [27]

4] Ginger -

Scientific name-zingiberofficinale Roscoe;Zingiberaceae

Part of use- Rhizome, ginger root

Method of used-Ginger can be consumed fresh, as a rhizome decoction, or as a tincture. The dosage of the extract (tincture) is 2.5–3 ml, depending on strength. Low doses during menstruation.[28]

5] Cramps Bark

Scientific name-viburnum opulusl; Honeysuckle

Part of used-Bark

Mentod of use-When cramps occur, take 1 ml of bark tincture every 2 to 3 hours. [29]

6] Feverfew-

Scientific name-Tanacetumpartheniuml; Asteraceae

Part of used-leaf

Method of use- If pain is present, the effective amount of feverfew herb might be as little as 50–100 mg per day.[30]

II. CONCLUSION

The chance to educate and lay the groundwork for future reproductive health is opportune when a teenage female approaches with concerns about her menstrual cycle. Health services. By starting formal gynecologic treatment, Age 18 to 21 or sooner if the person is sexually active. Active. Significant pelvic or menstrual bleeding Disorder may also be a sign of earlier reproductive age. Health services.

we spoke about some alternative home treatments for menstrual disorders as well as medicinal herbs. Menstrual A difficulty (such as dysmenorrhea or amenorrhea) Chronic illness that causes various Long-standing complications. Allopathic The use of medications to address the Sickness that causes a variety of negative outcomes. As a result, using medicinal plants is the best option. In order to address menstruation problems. The Plants have demonstrated their effectiveness in Decreasing the issue. Traditional medicinal plants include Used primarily in rural areas; because the Abundant availability of medicinal herbs Certain regions.

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