

Amenorrhea-A Woman's Worst Nightmare

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Abstract: Amenorrhea is the absence of menstruation bleeding in females caused by a number of reasons such as hormonal disproportions, reproductive organ defects, depression, stress, poor physical health, pregnancy etc. Primary and secondary type of amenorrhea depends on the occurrence pattern of menstruation cycle whether menstruation has not been started at a particular age, or had irregular mensurations. In both the cases it is crucial to consult a doctor to find the actual cause of amenorrhea so as to begin with the treatment phase.

Keywords: Secondary amenorrhea; polycystic ovary syndrome; Hirsutism; Virilization; Genital tract defects.

1. INTRODUCTION

Clinically the term Amenorrhea implies missing of menstrual periods [1]. There are numerous factors responsible for causing this clinical abnormality such as hormonal disparities, reproductive organ abnormality, natural factors, physical health, body weight, pregnancy, lifestyle etc [2, 3, 4, 5]. So it is important to consult a doctor regarding inattentive menstruation for the sake of its treatment.

2. TYPES OF AMENORRHEA

The following are the two types of Amenorrhea, depending on whether menstruation has not commenced by a certain age, or had commenced but is irregular i.e. absence of menstruation for few consecutive months [6,7].

- **Primary Amenorrhea:** In this type of amenorrhea menstruation bleeding has not been started by the age of 16 due to late puberty [8, 9]. Since most teenage girls begin menstruating between ages 9 and 18, but 12 is the average [10]. As a result development of secondary sexual traits will be delayed [11].
- **Secondary Amenorrhea:** This is the most prevalent form of amenorrhea affecting approximately 3–5 percent of adult women [12] in which a woman faces absence of menstruation for at least three months [13, 14]. Treatment is available for both the types of amenorrhea [15].

3. AMENORRHEA ASSOCIATED SYMPTOMS

Besides absence of menstrual bleeding, a woman might experience the following symptoms:

- Hair loss,
- Pelvic pain
- Hirsutism (excessive facial and body hair)
- Headache
- Nipple discharge
- Vaginal dryness
- Osteoporosis (decreased bone density)
- Infertility
- Increased muscle size
- Decreased sex drive
- Virilization (development of masculine features)
- Acne and
- Vision problems [16, 17, 18, 19, 20, 21].

4. CAUSES OF AMENORRHEA

Following are some reasons responsible for the absence of menstruation in woman:

1. **Natural Factors:** Factors like Age related menopause, pregnancy, breast-feeding etc are responsible for causing amenorrhea in woman [22].
2. **Use of Medications:** Use of medications such as birth control pills, anti-depressants,

anti-blood pressure drugs, anti-psychotics and anti-allergies may cause menstrual periods to stop [23, 24, 25].

3. **Lifestyle:** Low/high body weight, excessive exercise, mental stress, eating disorders, malnourished health etc tends to halt ovulation and affects menstruation [26, 27].
4. **Hormonal Imbalance:** Medical diseases such as thyroid malfunction (hyperthyroidism and hypothyroidism), tumor of pituitary gland, sarcoidosis, polycystic ovary syndrome, premature menopause, premature ovarian failure, postpartum necrosis, etc contributes to menstrual irregularities [28, 29, 30, 31, 32, 33, 34].
5. **Female Reproductive System Abnormalities:** Female reproductive organ developmental defects, genital tract defects, birth defects, ovary or uterus infections, Asherman's syndrome (uterinescarring), vaginal obstruction (imperforate hymen) etc is also responsible for causing amenorrhea [35, 36, 37, 38, 39].
6. **Genetic Defects:** Sawyer syndrome, Turnersyndrome, Kallmann syndrome (impaired sense of smell),Fragile X syndrome, etc can sometimes cause late or absence of menstruation [40, 41, 42].
7. **Family History:** If other women in your family have experienced amenorrhea, you may have inherited a predisposition for the problem [43].
8. **Less Common Causes:** Cancer, chronic disorders, autoimmune disorders, chemotherapy, head injuries, AIDS, adrenal gland malfunction, overgrowth of tissue from placenta, Cushing syndrome, fibroids and polyps may also cause amenorrhea [44, 45, 46, 47].

5. ASSESSMENT OF AMENORRHEA

Following are some diagnostic methods to diagnose amenorrhea in woman:

1. A doctor is likely to ask questions about a woman's menstruation history, apparent signs of puberty, genetic disorders in family members, lifestyle etc [48].
2. Pregnancy test either blood or urine test to check levels of menstruation associated hormones such as hormone, prolactin and luteinizing hormone [49, 50].
3. Physical examination to evaluate the development of secondary sexual traits e.g. Breast and pelvic examination [51, 52].

4. Ultrasound imaging to check the health of female reproductive system such as organ size, presence of follicles, uterus etc. Furthermore use of X-ray or CT scan to create cross-sectional images of the body for a keen look [53, 54, 55].

6. TREATMENT OF AMENORRHEA

Appropriate treatment of amenorrhea depends on its underlying cause. For example in case of hormonal disparities it can be cured with hormonal therapy to keep the levels of menstruation associated hormones at normal [56]. If there is a structural defect such as scar tissue in the uterus, ovarian cysts, tumors, uterine lesions then surgery is recommended [57,58]. On the other hand lifestyle related factors such as stress, eating disorders etc requires change in patient's attitude and diet [59]. In addition to that a woman is advised to keep a track of their menstrual cycles and should often visit their doctors or gynecologists for a regular checkup [60, 61].

7. CONCLUSION

Amenorrhea is therefore regarded as a clinical abnormality faced by women all over the world. It requires medical attention to avoid reproductive health issues in future

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