



MODERN APPROACHES TO CLASSIFICATION, DIAGNOSIS, AND TREATMENT OF ABNORMAL UTERINE HAEMORRHAGE

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ABSTRACT

Despite the achievements of modern medicine, uterine bleeding continues to be a significant clinical and social problem. Abnormal uterine bleeding (AUB) has a negative impact not only on women's physical health, but also on their emotional state, social adaptation, and financial well-being. About 30% of patients in gynecological clinics seek medical help for AMH. The frequency of this pathology increases with age: while in the reproductive period, it is 20-30%, in the peri- and postmenopausal period it reaches 80%. AUB is the second leading cause of hospitalization of women in gynecological hospitals and is a frequent indication for surgical interventions, including organ-destroying operations.

Introduction. According to the literature, abnormal uterine bleeding (AUB) is defined as a menstrual cycle disorder characterized by excessive duration (more than 8 days), volume of blood loss (more than 80 ml) and/or frequency (less than 24 days).

Normally, the menstrual cycle lasts from 24 to 38 days, the duration of menstruation is from 4 to 8 days, and the volume of blood loss varies from 5 to 80 ml [1, 2]. Deviations from these parameters are regarded as abnormal uterine bleeding, which requires a detailed diagnostic approach and the choice of appropriate treatment tactics.

In addition, the National Institute for Health and Clinical Excellence (NICE, UK) proposed the term "heavy menstrual bleeding (HMB)", which focuses on a significant volume of blood loss that negatively affects the physical, social, emotional and/or material well-being of a woman. This emphasizes the need for an individualized approach to the diagnosis and treatment of this pathology. The purpose of the study. To analyze modern concepts of the etiology and pathogenesis of abnormal uterine bleeding, as well as to consider the terminology and classification systems used in recent years. This will allow us to systematize existing knowledge, improve the accuracy of diagnosis, and select optimal treatment methods.

Prevalence of abnormal uterine bleeding. The incidence of abnormal uterine bleeding (AUB) among women of reproductive age worldwide varies from 3% to 30%, with the highest

prevalence observed during menarche and perimenopause. However, when irregular and intermenstrual bleeding is included in the statistics, the prevalence of AUB may exceed 35% [3, 4].

It is important to note that about 50% of women with AUB do not seek medical care, even when it is available. This is explained by both the subjectivity of the perception of symptoms and the lack of information among patients. Differences in the prevalence of AUB are also associated with the fact that some diagnostic criteria are objective, while others remain subjective, which makes it difficult to accurately determine the scale of the problem [5, 6].

Despite the low mortality rate, abnormal uterine bleeding has a significant impact on the quality of life of women:

- Reduces physical, emotional, and social well-being.
- Cause economic losses, including medical costs and loss of ability to work.
- Are one of the leading causes of anemia and iron deficiency, which is especially dangerous for pregnant women, increasing maternal morbidity and mortality [7].

Studies show that women with menstrual irregularities are more likely to experience:

- Anxiety and depression.
- Insomnia or excessive sleepiness.
- Severe pain syndrome compared to women with a regular menstrual cycle [8, 9].

In 2011, the International Federation of Gynecology and Obstetrics (FIGO) proposed a modern classification of AUB called PALM-COEIN.

PALM-COEIN system

This classification includes structural and non-structural causes of AUB:

1. PALM (structural causes)

- P (Polyp) – polyps of the endometrium and endocervix.
- A (Adenomyosis) – adenomyosis.
- L (Leiomyoma) – leiomyoma (fibromyoma) of the uterus.
- M (Malignancy & Hyperplasia) – hyperplasia and malignant neoplasms of the endometrium.

2. COEIN (non-structural causes)

- C (Coagulopathy) – coagulopathy, blood clotting disorders.
- O (Ovulatory dysfunction) – ovulatory dysfunctions.
- E (Endometrial) – endometrial causes.
- I (Iatrogenic) – iatrogenic (drug) causes.
- N (Not otherwise classified) – unclassified causes [1].

Modern terminology

Previously, AUB was divided into the following types:

- Menorrhagia – heavy and prolonged menstruation.
- Metrorrhagia – bloody discharge between menstruation.
- Menometrorrhagia – a combination of menorrhagia and metrorrhagia.

However, these terms are no longer used within the PALM-COEIN classification. Instead, the term "abnormal uterine bleeding" is used, specifying its cause and nature (e.g., ovulatory AUB, iatrogenic AUB, etc.) [2, 10].

Also distinguished:

- Acute AUB is massive bleeding that requires immediate medical intervention. It can be primary or develop against the background of chronic AUB.

• Chronic AUB is a menstrual cycle disorder that persists for 6 months or more [11].

Materials and methods. The study was based on the analysis of literature data published over the past 10 years, with the involvement of information from international and domestic scientific databases, including PubMed, eLibrary, and Scopus. The review includes modern clinical guidelines, as well as the results of current studies on AUB.

Results. The analysis of sources confirmed the significance of the AMC problem in modern gynecology. This issue remains at the center of attention of physicians, researchers, and international professional communities. In recent years, the standardization of terminology and the use of a universal classification system proposed by the International Federation of Gynecology and Obstetrics (FIGO) have unified the diagnosis and treatment of this condition. This has greatly simplified research and the development of effective clinical protocols.

Conclusion. FIGO recommends using the PALM-COEIN classification to systematize the causes of AUB, which includes both structural and non-structural factors, excluding gestational causes of bleeding. Establishing an etiological diagnosis determines the treatment tactics and directly affects its effectiveness. A deep understanding of the mechanisms of AUB development, including endometrial and unclassified forms, helps improve diagnostic approaches and select personalized therapeutic strategies.

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