

**PATHOMORPHOLOGICAL BASIS OF UTERINE BLEEDINGS**

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Bachadondan anomal qon ketishi haqida akusherlik va ginekologik amaliyotda eng keng tarqalgan jarayonlardan biri bo'lib, 10 yoshdan oshgan reproduktiv yoshdagi ayollarning 30-35%ida kuzatilishi mumkin. Ma'lum bo'lishicha, bachadondan anomal qon ketishi bilan og'rigan bemorlarning 50% dan ortig'i tibbiy yordamga murojaat qilmaydi, bachadondan anomal qon ketishi hayot sifatiga va ish unumi natijalariga salbiy ta'sirlarga olib keladi va bachadon anomal qon tufayli anamnesida anemiyasi bo'lgan homilador ayollarning perinatal davriga ta'sir qiladi.

Kalit so'zlar: bachadondan anomaliya qon bo'yicha ; klassik terminologiya , menometrorragiya , hayz siqilish haqida

Аномальное маточное кровотечение (AUB) улавляется одним из наиболее распространенных состояний, наблюдаемых в рутинной акушерской и гинекологической практике, затрагивающая около 10–30% женщин репродуктивного возраста старше 35 лет. Сообщалось, что более 50% пациентов с AUB не обращаются за медицинской помощью, при этом AUB вызывает снижение качества жизни и продуктивности и влияет на перинатальный исход беременных женщин с анемией в анамнезе из-за аномальных маточных кровотечений.

Ключевые слова: аномальное маточное кровотечение, классическая терминология, менометроррагия, нарушение менструального цикла.

Abnormal uterine bleeding (AUB) is one of the most common conditions observed in routine obstetric and gynecological practice, affecting about 10-30% of women of reproductive age over 35 years old. It has been reported that more than 50% of patients with AUB do not seek medical help, while AUB causes a decrease in quality of life and productivity and affects the perinatal outcome of pregnant women with a history of anemia due to abnormal uterine bleeding

Keywords: abnormal uterine bleeding, classical terminology, meno-metrorrhagia, menstrual cycle disorder.

Relevance of the topic. Adenomyosis is a common gynecological disease that occurs mainly in premenopausal women. Adenomyosis can cause abnormal uterine bleeding and dysmenorrhea and is associated with a 28% reduction in clinical pregnancy rates and a more than two-fold increased risk of miscarriage in women undergoing IVF with autologous oocytes [4,8]

Adenomyosis is usually caused by abnormal uterine bleeding and is associated with subfertility and a high rate of miscarriage. Recent evidence has demonstrated anomalous endometrial vascularization in patients with adenomyosis, suggesting a role for angiogenesis in the pathophysiology of abnormal uterine bleeding and subfertility in adenomyosis.

Angiogenesis is the process of growth of existing new capillary blood vessels that occurs in physiological and pathological processes [1,5,8,11].

The role of angiogenesis in endometriosis is well established and recognized as a potential therapeutic target [3]. Adenomyosis is closely related to endometriosis and can be found in up to one third of endometriosis patients. Both endometriosis and adenomyosis are invasive diseases in which endometrial cells acquire invasive properties that require angiogenesis to establish in an ectopic site [2,6,7,11].

According to many pathologists and clinicians, adenomyosis develops when the normal connection between the basal endometrium and myometrium is disturbed. These changes may promote invasion of the myometrium by the endometrial glands, resulting in ectopic glands within the muscle, which cause hypertrophy in the smooth muscle cells of the adjacent myometrium. The cause of the initial disruption of this connection and the entire pathological process underlying adenomyosis is not clear [4,7]. During pregnancy, invasive trophoblasts disrupt the endometrial-myometrial junction. In contrast to endometriosis, the incidence of adenomyosis was found to be higher in nulliparous women than in parous women. Likewise, women with one or more spontaneous abortions in their anamnesis have a higher risk of encounter. This can be explained by the high risk of rupture of the endometrial-myometrial junction due to pregnancy. Endometrial-myometrial communication can also be disturbed by repeated episodes of menstruation and associated myometrial contraction.

In fact, the risk may be even higher in women with heavy periods. This phenomenon reflects the involvement of tissue damage and repair as a mechanism of adenomyosis [5].

Ibrahim et al., (2017) mentioned that the potential role of angiogenesis in the pathophysiology of adenomyosis and related symptoms are complex. This process is thought to be triggered by tissue damage and repair that induces reactive EMT in response to hypoxic and hormonal stimuli. The main pathogenesis is based on the theory of the penetration of endometrial cells into the myometrium in the areas of the junctional zone weakened by genetic predisposition or autotraumatization of the uterus and induced hypoxia. According to this theory, hyper- and unsynchronized uterine motility after physiological processes such as menstruation or sperm transport leads to chronic damage of the endometrium adjacent to the myometrium [9,10]. The involvement of the endometrium in the process of these diseases is formed in the zone connecting the ectopic foci of the endometrium, causing local inflammation and hypoxia. Exposure to ovarian estrogens may play an additional role, as local estrogen production occurs due to local estrogen sulfatase and aromatase activity in adenomyotic tissues. These events are directly related to increased angiogenesis in tissues, as they lead to the production of VEGF, which induces angiogenesis [4,7,11].

The purpose of our study is to study the main causes and correlation of pathomorphological changes in the uterine endometrium in adenomyosis with uterine bleeding.

Materials and methods. For retrospective studies, data on women who underwent hysterectomy, myomectomy or polypectomy in non-pregnant women aged 18-55 years at the Perinatal Center of Khorezm region and the city maternity hospital were collected in 2015-2023.

Among 240 patients who applied for treatment for the first time during the study period, 110 (45.8%) cases were diagnosed with abnormal uterine bleeding. 46 (41.9%) of them had menstrual cycles, 64 (58.1%) had abnormal bleeding during menstruation. In the

study, PALM had the highest percentage of AUB-L and COEIN had the highest percentage of AUB-O. Correlation analysis showed that COEIN was strongly associated with abnormal menstrual cycles and PALM was strongly associated with abnormal menstrual bleeding.

Discussion of received information. Detailed studies included 240 cases. Among 240 patients who applied for treatment for the first time during the research period, 110 cases (45.8%) were diagnosed with abnormal uterine bleeding. 46 (41.9%) of them had menstrual cycles, 64 (58.1%) had abnormal menstrual bleeding. According to the results of the research, the term "Hypermenorrhea" covers 15 different combinations of pathologies: "menorrhagia" was identified in 9 people, "metrorrhagia" - in 14 people, and "menometrorrhagia" - in 18 people. Out of 12 polyps detected, 5 (5.4%) had two polyps and 1 (1%) had three polyps. Out of 46 adenomyosis patients, 31 (89.7%) had diffuse adenomyosis and 15 (8.2%) had adenomyoma. Out of 39 patients with uterine myoma, 18 (34.9%) had submucosal myoma, 21 (65.1%) had another type of myoma.

Histopathological results of all endometrial biopsy specimens were examined after they were stratified into age and parity groups. Sensitivity, specificity and positive predictive value were calculated to assess the accuracy of the diagnosis. The majority of patients were in the age group of 18 to 55 years, with normal cyclic findings being the most common histopathological finding. Malignancies were observed in 35 patients, most of whom were over 50 years old. In 13.3% of patients (14 out of 110), intrauterine defects detected during hysterectomy were not detected. The overall accuracy of determining the presence of normal and pathological signs was 78.5%, sensitivity - 73.8%, specificity - 76.8%, positive predictive value - 74.2%. Normal cyclic changes make up the largest part of histopathological findings. However, hyperplasia and malignancy are important causes of perimenopausal and postmenopausal bleeding. In conclusion, we can say that anomalous bleeding from the uterus is an additional complex process, which is mainly manifested as a consequence of pathological conditions developed in the uterus for various reasons. Hypermenorrhea, menorrhagia, metrorrhagia, menometrorrhagia, polyp, diffuse adenomyosis, and adenomyoma were detected based on the morphological examination of the uterine mucosa in abnormal bleeding from the uterus.

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