ETHIOPIAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 12, Issue 05, May-2025 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980 2024: 7,662

*UDK 618.11-006.2.618-002-071-08-036*

# TACTICS FOR DIAGNOSING AND CARRYING OUT ENDOMETRIOSIS

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**Resume**:This article is devoted to the statistics of endometriosis in the territory of Uzbekistan , the most common causes, clinical signs , as well as modern measures of diagnostic correction , treatment and Prevention , written based on the clinical standard of the Republic of Uzbekistan ( compiled on the recommendation of the World Health Organization ).

**Keywords:** adenomyosis, endometriosis,combined oral contraceptive, gonadotropin rilizing hormone , antimicrobial hormone, menopause.

**Резюме :**Эта статья посвящена статистике эндометриоза на территории Узбекистана, наиболее распространённым причинам, клиническим признакам, а также современным методам диагностики, коррекции, лечения и профилактики. Она написана на основе клинического стандарта Республики Узбекистан (составленного по рекомендациям Всемирной организации здравоохранения).

**Ключевые слова:** аденомиоз, эндометриоз, комбинированные оральные контрацептивы, гонадотропин-рилизинг-гормон, антимюллеров гормон, менопауза.

**Rezyume :**Ushbu maqola O’zbekiston hududida endometrioz statistikasi , eng ko’p uchraydigan sabablari, klinik belgilari shuningdek , tashxis qoyish , davolash va oldini olishning zamonaviy chora tadbirlariga bag’ishlangan bo’lib , O’zbekiston Respublikasi klinik standartiga asoslangan holda yozilgan ( Jahon sog’liqni saqlash tashkiloti tavsiyasi asosida tuzilgan ).

**Kalit so’zlar :** Adenomioz, endometrioz, kombinirlangan oral kontraseptiv,gonadotropin rilizing gormon, antimyuller gormon , menopouza.

**Epidemiology.**

Epidemiological factors are mostly extrapolated in groups of women with pelvic pain and infertility. It is generally estimated that the prevalence of the disease is 1-7% in women who undergo gynecological operations, including tubal ligation. In a study that evaluated pathological samples taken from patients during vaginal hysterectomy due to chronic pelvic pain, the prevalence of endometriosis was 8.3%. High rates are observed in cohorts of laparoscopy patients due to pelvic pain (12-70%) or infertility (9-50%), especially in adolescent populations with drug-resistant chronic pain. Such a large range of indicators can be explained by the heterogeneity of the research method: recent studies have included diagnostic criteria that have not been used before.

Endometriosis is usually observed in women of reproductive age, but the age at which the diagnosis is made varies significantly. Unlike the previous 9 paradigms, even girls with chronic pelvic pain before

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the onset of menarche should be examined for endometriosis, since the disease has been reported even in this group of young patients. In addition, endometriosis can be observed in women with menopause. The severity of symptoms increases with age, and according to available data, the frequency reaches its peak at 40 years of age.

Caucasian women are also thought to have a higher prevalence of the disease among women with a lower body mass index. Global trends in this disease are not more reliable due to the dependence on surgical data, which serves as confirmation of the diagnosis, and the inconsistency of literature data on pelvic pain. Since endometriosis can be asymptomatic, it is difficult to assess its true prevalence.

**Etiology and pathogenesis**

Endometriosis is a multifactorial disease, and despite a long study of it, the etiology of this pathological process is still unclear. Many theories of endometriosis pathogenesis have been proposed:

**implantation** (retrograde menstrual theory J. A. Sampson, 1921) is the most common. During menstruation, parts of the endometrium enter the abdominal cavity through the fallopian tubes, stick to the mucous membrane of the peritoneum and turn into endometrioid foci. Estrogens are very important in this process. Evidence supporting retrograde menstruation suggests that girls with genital tract obstruction have increased incidence of endometriosis, preventing menstrual drainage through the vagina, and therefore increasing tube reflux. However, although up to 90% of women have retrograde menstruation, many do not develop endometriosis, indicating the presence of additional factors.

**Metaplastic.** A possible mechanism is the differentiation of the coelomic epithelium in the endometrioid glands. The reason for the development of endometriosis in girls before the onset of menarche is stimulated by the production of estrogen after the maturation of the Muller's remains — cells of paramesonephral origin located in the pelvis and the hypothalamus-pituitary - ovarian axis. Deep peritoneal disease without obvious superficial implants shows the following 8 for this process and can explain the advanced stages observed in very young patients.

**The theory of immune imbalance.** In patients with endometriosis, there is a decrease in phagocytic receptivity with actively Unbound macrophages (the first response to a foreign body), which can be an ineffective mechanism for cleansing menstrual secretions. An increase in autoimmune diseases has also been reported in patients with surgically confirmed endometriosis.

**Vascular and lymphatic distribution**: taken in the presence of pulmonary endometriosis. Theory of oxidative stress. In the peritoneal fluid of patients with endometriosis, an increase in various inflammatory and angiogenic mediators is constantly detected.

Oxidative stress products contribute to an inflammatory reaction due to the formation of free radicals and low levels of protective antioxidants.

Postpubertal girls with Muller diseases that make it difficult for Menstrual blood to pass are also at risk of developing endometriosis. Such disorders include the transverse vaginal septum, double uterus with vaginal obstruction, and hymen atresia (not Mueller's disorder). Genetic predisposition to the disease has been shown in studies involving siblings.

According to composites theory, the causal mechanism for the development of endometriosis involves the spread of blood vessels / lymph, as well as the separation of the coelomic epithelium into endometrioid glands.

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**Classification**

Revised scope of the American Society of Reproductive Medicine. The classification of endometriosis is usually based on a visual assessment during laparoscopy. The total indicator corresponds to one of 4 steps (I to IV or minimum to heavy) and is based on the following parameters:

**Stage I** (minimum): general indication 1 to 5 small superficial peritoneal implants or appendage implants (<1 to 3 cm); film adhesion.

**Stage II (**Light grade): the overall figure is 6 to 15 larger injuries (>3 cm), some deep penetration.

**Stage III** (average grade): the total indicator is 16 to 40 large lesions, most of which are deep penetration, partial obliteration of utero-rectal depression; dense adhesion affecting the appendages.

**Stage IV** (severe grade): general indication > 40 deep damage to the ovaries (endometrioma) with dense adhesion of the appendages; obliteration of uterine-rectal depression.

**Classification of adenomyosis (L. V. Adamyan, V. I. Edited by Kulakov):**

the clinical classification of adenomyosis implies four stages of the spread of the pathological process:

**stage I**-heterotopes of adenomyosis are located only in the submucosal layer;

**Stage II**-the pathological process spreads to the muscle layer;

**Stage III**-the pathological process occupies the entire thickness of the myometrium and reaches serosis. uterine cap;

**Stage IV**-in addition to the uterus, the parietal peritoneum and nearby organs are involved in the pathological process.

**Clinical symptoms.**

The most important clinical manifestations of endometriosis include: pelvic pain (dysmenorrhea, dysparunia, dysuria, dyschesia, and chronic pelvic pain.infertility is a violation of the menstrual cycle, abnormal uterine bleeding and the presence of tumor-like formations (endometrioid cysts) in the pelvis.

Rare symptoms: painful rectal bleeding or the presence of blood in the urine (hematuria). shoulder joint pain cyclic lung problems (pneumothorax )

**Endometriosis should be suspected with the following symptoms, including young women under 17 years of age:**

chronic pelvic pain is dysmenorrhea that negatively affects quality of life and daily activities.

pain that occurs during and/or after sexual intercourse-disparunia,

gastrointestinal symptoms associated with menstruation-intestinal pain constipation or diarrhea,

signs of the urinary system associated with the urinary system and menstruation,

such as urination, the appearance of blood in the urine.

**Diagnostics .**

**Complaint, Anamnesis.**

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If complaints are detected and Anamnesis accumulates, attention should be paid to the following factors: heavy menstruation, premenstrual, postmenstrual, postcoital bleeding; - dysmenorrhea and/or dysparunia, its symptoms do not disappear or are mildly stopped when taking combined oral contraceptives (COCs) and non-steroidal anti-inflammatory drugs (NSAIDs; the presence of endometriosis in the mother or the patient's sisters; regular ovulation, permeability of the fallopian tubes and subfertility with a normal spermogram in a partner; diarrhea, constipation, nausea, pain during defecation, intestinal cramps, bloating; allergies to plant flowers, allergic rhinitis and the presence of hypersensitivity to food; depression, anxiety, chronic fatigue syndrome; presence of migraines; frequent, urgent urination.

**Pay attention to the following changes that can be observed in endometriosis during gynecological examination:**

lateral displacement of the cervix

* fixed and sharply shifted uterus

* volumetric formation of attachments

• contraction and tension of the vaginal vaults and clear manifestation of cervical stenosis the presence of nodules in the utero-sacral region, thickening, tension and/or formation in the Sacro-sacral region, the presence of small tuberous formations in the Sacro-sacral region, the saccadon ligament and the rectovaginal region

• restriction of pain and mobility of the intestinal mucosa(with rectovaginal examination).

**Labarator examination :**

Increased levels of CA 125 in the blood (35 IU/ml or more) may indicate endometriosis, but normal levels of CA 125 in the blood (less than 35 IU/ml) do not rule out the presence of endometriosis.

**Instrumental examination methods** :

Transvaginal ultrasound is an informative method, in the diagnosis of endometriosis its sensitivity is on average 91%, for deep infiltrative forms-79% and meets the criteria in cases of Sacro-uterine ligaments, rectovaginal septum, vaginal wall, Douglas cavity and rectosigmoid intestinal damage.

**Pelvic MRT examination** should be considered as a research method to assess the level of deep infiltrative endometriosis associated with the intestines, bladder or urinary tract. Laparoscopy suspected of endometriosis should be offered in the following situations:

when pregnancy is a priority for the patient; presence of pain syndrome;

lack of conservative treatment effect.

**Treatment**

Since patients with endometriosis may have various complaints, therapy should be prescribed individually. In the absence of positive, diagnostic results at the stage of examination, therapy should be based on the clinical suspicion of endometriosis.

The main goal is to ensure safe and effective treatment, taking into account factors such as pain and reproductive ability that irritate the patient.

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**Treatment of endometriosis should be offered according to the patient's symptoms, preferences and priorities, and not the endometriosis stage.**

In patients with endometriosis, the use of non-steroidal anti-inflammatory drugs is recommended to relieve pain Nonsteroids can be prescribed independently or in combination with another method (for example, hormone therapy) for up to 3 months, in the absence of contraindications.

The following drugs may be offered as a choice:

ibuprofen: 400 mg orally every 4-6 hours as needed, with a maximum dose of 2,400 mg per day;

naproxen: 250-500 mg orally twice a day as needed, maximum 1250 mg / day;

nimesulide: up to 200 mg / day; selecoxib: 200 mg orally 1 time per day;

**Hormone therapy.**

Most hormonal methods have the same effectiveness in treating pain associated with endometriosis. The use of hormonal drugs is generally limited to inadequate response, side effects, or contraceptive effects in patients who wish to become pregnant. Side effects vary widely between methods and patients.

As a result, a specific treatment can be a good option for one woman, but it has serious side effects in another woman. In this regard, discuss possible side effects with the patient and explain the possibility of changing therapy. As an empirical therapy of combined oral contraceptives (COCs) for contraception in patients with endometriosis, it is recommended to prevent recurrence of the disease after surgical treatment COCs can be prescribed periodically or continuously.

Although continuous treatment can lead to dysmenorrhea and a decrease in the recurrence of postoperative endometrioma, the harmful effects of this type of treatment are frequent. Patients should be informed that complications associated with long-term use are common.

There is no data confirming the superiority of one NSAIDs or hormonal contraceptive over another. The choice should be based on the wishes of the patient, the availability and cost of the drug. CoC is not recommended in patients over 35 years of age, smokers, patients with acquired or hereditary thrombophilia or cardiovascular disease.

Monotherapy with progestogens in patients with endometriosis is recommended in a continuous mode, as well as in cyclic mode in patients planning pregnancy. Gestagens can be used as first-line therapy, as well as to prevent relapse after surgical treatment.

Monotherapy with progestogens in patients with endometriosis is recommended in a continuous mode, as well as in cyclic mode in patients planning pregnancy. Gestagens can be used as first-line therapy, as well as to prevent relapse after surgical treatment.

Progestogens can be used in a variety of forms: oral (dienogest), injectable (MPa), and spirally containing levonorgestrel. Progestogens are also part of Coke. Patients with a defined diagnosis or with common and infiltrative forms of endometriosis after surgical treatment are advised to prescribe gonadotropin-releasing hormone agonists.

The use of Agn-RG causes a deep hypoestrogenic condition, more than 6 months of use requires the appointment of "Add-back" therapy (reversible therapy) to relieve menopausal symptoms and

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primarily prevent osteoporosis. In patients with endometriosis, a limited prescription of danazole is recommended, due to the high level of side effects .

To determine the degree of spread of the disease and remove foci, surgical treatment using a laparoscopic method is recommended, mainly in patients with genital endometriosis (if there are conditions and there are no contraindications).

Surgical and drug treatment methods should not be contradictory. The advantages and disadvantages of each method should be carefully measured before starting treatment, taking into account the individual characteristics of the work. This minimizes negative outcomes and, conversely, maximizes positive outcomes. If the adjacent organs are damaged, it should be entered if there is a corresponding certificate from specialists specializing in the surgical group (urologist, surgeon, etc.) or an obstetrician-gynecologist. Surgical treatment in Grade III-IV patients. endometriosis with the participation of neighboring organs, the presence of a wide adhesive process, surgical treatment should be carried out in Level 3 hospitals (hospitals specializing in women who develop new methods of diagnosis and treatment of gynecological pathology, including those providing high-tech medical care).

After emptying the Endometrioid cyst wall and washing the cavity, it is recommended to enucleate the pathological process using laparoscopic access (if possible) to completely remove it, morphological examination of the diagnosis and reduce the rate of recurrence.

Cyst capsule enucleation allows you to minimize the risk of endometriosis recurrence, helps maintain ovarian reserve and, accordingly, increases the likelihood of spontaneous pregnancy in patients with endometriosis-related infertility. Surgical treatment of the nodular form of adenomyosis is recommended in patients with abnormal uterine bleeding. Since the pregnancy rate in patients with stage 3-4 adenomyosis does not exceed 10-15%, the only effective treatment for adenomyosis is general hysterectomy.

**Endometriosis and infertility**

Endometriosis is one of the common causative factors of female infertility, affecting 25-50% of infertile women. Endometriosis is identified as the final stage of infertility testing in 58% of women undergoing laparoscopy. The proportion of infertility associated with endometriosis appears to have racial and geographical characteristics. Patients with infertility associated with endometriosis are not recommended to prescribe hormonal treatment before surgery to improve the spontaneous occurrence of pregnancy, since there is no evidence of the positive effect of hormonal therapy on childbirth. It is not recommended to remove small endometriomas before yrt, especially if there are repeated operations in which the diagnosis of endometriosis is confirmed. Nevertheless, surgery remains mandatory in women with questionable results of ultrasound and pelvic pain syndrome.

Before preparing a patient with endometriosis for ART, it is recommended to prescribe agnrh replacement with "add-back"-therapy for 3 to 6 months before ART, which is associated with an increase in the rate of pregnancy. Surgical treatment of patients with infertility and endometriosis improves reproductive prognosis at any prevalence level. In small or moderate-weight forms of endometriosis, laparoscopic surgical treatment is recommended, which improves pregnancy rates.

Surgical removal of endometriosis in patients with infertility in stage 1/2 of endometriosis (AFS/ASRM) is recommended to increase the live birth rate. In AFS / ASRM, patients with infertility in stage 1/2 of endometriosis are advised to perform surgical laparoscopy (excision or ablation of foci of endometriosis) to improve fertility, including adgesiolysis, not diagnostic laparoscopy.

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Patients with infertility associated with endometriosis are not recommended to prescribe hormonal treatment after surgery in case of radical removal of the foci to improve the spontaneous indicators of pregnancy.

After the age of 21, it is recommended to use ART techniques to achieve pregnancy surgical treatment, surgical treatment and conservative treatment for women with 3-4 stages of endometriosis and with impaired permeability of the fallopian tubes, regardless of the age of the patient and the birth of her husband, are ineffective for 6-12 months. To increase the rate of pregnancy using ART methods, it is recommended to prescribe agn-RG for 3-4 months with adenomyosis of 3-4 **stages.**

**Endometriosis in adolescents.**

Purpose of treatment of endometriosis in adolescents: pain management, prevention of further development of the disease, maintaining reproductive function.

Most adolescents who complain of painful menstruation are characterized by primary dysmenorrhea, they respond well to empirical treatment of NSAIDs or hormonal suppression, or both. However, some patients have symptoms that initially indicate secondary dysmenorrhea, or they are ineffective in the empirical treatment of primary dysmenorrhea and need further examination. When assessing secondary dysmenorrhea in adolescents, both pelvic examination data and pelvic ultrasound results should be taken into account.

For the treatment of adolescent pain syndrome, NSAIDs are recommended to be used as first-line therapy, and if they are ineffective, Coke or gestagens can be an alternative. Although the actual prevalence of endometriosis among adolescents is unknown, at least two-thirds of adolescent girls with chronic pelvic pain or dysmenorrhea are diagnosed during endometriosis diagnostic laparoscopy when hormone therapy and NSAIDs are unresponsive.

The most common localization of endometriosis in adolescents is the ovaries, Douglas space, posterior leaves of wide ligaments, Sacro-uterine ligaments. The time interval from the onset of menarche to the formation of endometriosis requires surgical intervention, the minimum is 4 years.

If endometrioid cysts of the ovary and extragenital forms of the disease are detected, an oncological warning should be indicated. With the continuation of postmenopausal endometriosis, the risk of malignancy increases, which requires urgent surgical treatment.

Many cases of recurrence of postmenopausal disease have been described, both when postmenopausal hormone therapy (MGT) is used and without it. For women with a history of endometriosis, hormone treatment (MGT) is recommended to relieve the symptoms of characteristic menopause, estrogen monotherapy is not recommended. In patients with endometriosis who have indications for this treatment, it is recommended to use a continuous MGT combined regimen, regardless of whether they have undergone a hysterectomy or not.

**Medical rehabilitation.**

For rehabilitation in the presence of appropriate complaints, psychotherapy, relaxation techniques, ART-therapy, pelvic floor muscle exercises (imbilding), water Gymnastics, balneotherapy, medical massage, electrotherapy, behavioral therapy, social and sexual counseling, acupuncture may be used. Patients with endometriosis are advised to consult in the presence of complaints about the change of 23 psycho – emotional background to assess the psycho-emotional state and advise the appropriate specialists (medical psychologist) to improve the quality of life, and in the presence of sexual

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disorders-to consult a doctor. In all forms of endometriosis that require surgical treatment, it is not recommended to use physical factors in patients; in Stage III-IV of the spread of endometriosis; with deep psycho-emotional disorders; neuroticization of the patient against the background of the underlying disease.

**Prevention.**

Since the exact causes of endometriosis are not identified, there are no special recommendations that reduce the risk of the disease.

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