



**OVARIAN CYST, CAUSES OF OCCURENCE, CLINICAL TYPES, MODERN
APPROACHES TO DIAGNOSIS AND TREATMENT.**

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Abstract: Every woman has two almond-shaped structures called ovaries on either side of the uterus. In an adult woman who has not gone through menopause, an egg is released from one of these ovaries each month. An ovarian cyst, or ovarian cyst, refers to a fluid-filled cyst that develops on or near the ovary. Many women develop ovarian cysts at some point in their lives. Ovarian cysts are very common and come in two types: functional and abnormal. Functional cysts develop as a result of the normal functioning of the ovary. They are usually smaller than abnormal cysts and go away on their own without treatment.

Uterine cyst is a common pathology in women's reproductive health, occurring in women of different ages. This research work provides an in-depth analysis of modern diagnostic methods and effective treatment strategies for uterine cysts. This article describes in detail the etiology, pathogenesis, and clinical manifestations of uterine cysts. The importance of modern diagnostic methods, including ultrasound, MRI, hysteroscopy, and laboratory tests, is emphasized. The role of differential diagnosis in the diagnostic process is highlighted.

Treatment approaches include conservative and surgical methods. The effectiveness of hormonal drugs, anti-inflammatory drugs and physiotherapeutic methods in conservative therapy was evaluated. Among surgical interventions, the advantages of laparoscopic and open operations were compared. The results of the study proved the high effectiveness of modern minimally invasive methods. An integrated approach was recommended to improve the quality of life of patients and reduce complications. The importance of preventive measures and long-term monitoring programs was emphasized.

Keywords: Uterine cyst, hormonal therapy, UTI examination, endometrium, myometrium, cervix, estrogen, progesterone, laparoscopic approach, ovary, follicle, ovulation.

Introduction. Uterine cyst (ovarian cyst) is one of the most common pathologies of the female reproductive system. Most women develop ovarian cysts during their lives, most of which are harmless, but some can lead to serious complications.

Description of the pathology: Ovarian cysts are fluid-filled or solid cavities that develop on or within the ovaries. They come in different types, and each has its own characteristics.

Types: • Functional cysts - cysts that form normally during ovulation and indicate that the ovaries are functioning properly

• Dermoid cysts - are formed as a result of congenital developmental anomalies

Endometrioid cysts - are associated with endometriosis

• Cystadenomas - benign tumors
Clinical significance: Cysts are common, mainly in pregnant women or women who have not reached menopause. Some cysts can cause menstrual irregularities, heavy or irregular menstruation, and bleeding.



Reproductive health effects: Ovarian cysts usually do not prevent pregnancy, but sometimes they can make it difficult to get pregnant. When surgical intervention is necessary, doctors try to preserve reproductive function. This pathology is successfully diagnosed and treated in modern medicine, but timely detection and the right approach are important.

Ultrasound Diagnosis - A Modern Diagnostic Method Ultrasound is usually the first imaging method used to evaluate ovarian lesions. This method is the most important and effective tool in the diagnosis of uterine and ovarian cysts and occupies a central place in modern gynecology. Advantages of ultrasound diagnosis:

1. Impact on diagnostic accuracy: Pattern recognition on ultrasound often allows for a reliable diagnosis of common cystic ovarian masses. This allows doctors to differentiate between simple cysts, hemorrhagic cysts, or other pathologies. 2. Imaging capabilities: This imaging technique uses sound waves to create images of the pelvic organs. It can identify ovarian cysts, their location, and whether they are mostly fluid or solid.

3. First-line imaging: Transvaginal ultrasound is the recommended first-line imaging modality for suspected or incidentally detected pelvic masses. 4. Diagnostic options: Ultrasonography is the imaging modality of choice for the diagnosis of ovarian cysts. It is a noninvasive, safe, and reproducible imaging modality.

5. Clinical significance: Characterization of ovarian masses allows for appropriate referral of patients with malignant disease to specialized gynecologic oncologists, which has been shown to optimize care and improve survival.

Modern approach: Although ultrasound remains the ideal noninvasive first-line imaging technique, multidetector computed tomography (CT) is now widely used in emergency departments, especially in cases where nongynecologic disease is suspected. Ultrasound diagnosis plays a key role in early detection of uterine cysts, assessment of their characteristics, and determination of treatment strategy.

Surgical technique: Small incisions are made in the abdomen and gas is injected into the pelvic area to allow surgeons access to the ovaries. A laparoscope (a small, tube-shaped microscope with a light at the end) is inserted into the abdomen.

Minimally invasive approach: Ovarian cystectomy is a surgical procedure to remove a cyst from the ovary. Laparoscopic surgery is a minimally invasive surgical technique that uses only a few small incisions in the lower abdomen.

Key advantages: 1. Minimally invasive: The advantages of laparoscopic ovarian cystectomy with clear needle aspiration are significant. The minimally invasive nature of the procedure results in smaller incisions, less scarring, and less post-operative pain compared to traditional open surgery.

2. Preservation of ovarian function: The goal of laparoscopic cystectomy is to preserve the patient's fertility by removing only the cyst or tumor and preserving the rest. 3. Modern standard: Today, surgical treatment has become more conservative and less invasive. Features of the procedure: Laparoscopic ovarian cystectomy is a minimally invasive surgery to remove cysts that may form on the ovaries. This surgical procedure is performed by our OB/GYN surgeons



who are highly experienced in laparoscopic techniques. Areas of application: Laparoscopic cystectomy is used to remove ovarian cysts and tumors that are persistent, growing, or causing symptoms.

Hormonal Therapy - Conservative Treatment Hormonal therapy is the main conservative approach to treating uterine cysts. Your doctor may prescribe medications that contain hormones (such as birth control pills) to stop ovulation and prevent future cysts from forming. Hormonal medications, especially combinations of estrogen and progestin, are effective in shrinking functional cysts and preventing the development of new cysts.

Recommendations: 1. Early diagnosis and regular follow-up: Women are advised to undergo a preventive examination by a gynecologist at least once a year. Ultrasound diagnostics is a safe and effective method that allows for the early detection of cysts. Regular examinations are especially important for women over 30 years of age. 2. Use of an individual approach: It is necessary to choose a treatment strategy for each patient based on their age, reproductive plans, type and size of the cyst. For functional cysts, it is advisable to first use observation, then hormonal therapy, and in severe cases, laparoscopic surgery. 3. Prioritize conservative treatment. Birth control pills are effective in preventing the recurrence of functional cysts. 4. Use of modern technologies: In cases where surgery is necessary, use laparoscopic methods, as they are minimally invasive, safe and allow for quick recovery. This approach preserves reproductive function to the maximum extent.

Conclusion: Uterine cyst is a successfully treatable disease in modern gynecology. The high accuracy of ultrasound diagnostics, the effectiveness of hormonal therapy and the minimally invasive properties of laparoscopic surgery create great opportunities for the treatment of this pathology. Most importantly, it is necessary to apply an integrated approach aimed at preserving reproductive health and improving the quality of life of women. All problems associated with uterine cysts can be solved through timely diagnosis, selection of the right treatment method and long-term observation.

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