SIGNIFICANCE AND RESULTS OF A COMPREHENSIVE APPROACH TO EARLY DIAGNOSIS OF INTRAUTERAL PATHOLOGIES

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Abstract. This thesis analyzes the significance and clinical outcomes of a comprehensive approach in the early diagnosis of intrauterine pathologies.

Keywords: intrauterine pathology, early diagnosis, comprehensive approach, ultrasound examination, hysteroscopy, screening, immunohistochemistry, reproductive health, diagnostic accuracy, treatment tactics.

Preserving and strengthening the health of women of reproductive age is currently considered one of the priority areas of the healthcare system. Intrauterine pathologies—endometrial hyperplasia, polyps, submucosal myomas, and other hyperproliferative processes—are particularly common among women, often manifesting as reproductive dysfunction, infertility, and menstrual cycle disorders. The clinical significance of these diseases is determined by their latent or minimally symptomatic course, late detection, and in some cases, the risk of transitioning to malignant processes.

In recent years, the problem of early diagnosis of intrauterine pathologies has become increasingly relevant. Traditional diagnostic methods often provide insufficient information during the late stages of the disease, leading to a decrease in treatment efficacy. Therefore, there is a growing need to apply a comprehensive approach that includes clinical, instrumental, and morphological examinations. This approach allows for the early detection of pathology, a deeper understanding of its

developmental mechanisms, and the development of an individualized treatment strategy.

In modern gynecology, the combined use of ultrasound, hysteroscopy, morphological, and immunohistochemical analyses is significantly increasing diagnostic accuracy. In particular, methods that allow for the assessment of the receptor state and proliferative activity of endometrial tissue are of great importance in determining the prognosis of the disease. At the same time, a comprehensive assessment of clinical signs, hormonal status, and individual patient characteristics is one of the key factors in early diagnosis.

The relevance of this topic lies in the fact that the application of a comprehensive approach to the early detection of intrauterine pathologies allows not only to prevent severe complications of the disease but also to preserve reproductive health and increase the effectiveness of treatment. In this regard, this study aims to analyze the significance and results of a comprehensive approach in the early diagnosis of intrauterine pathologies on a scientific basis.

Early detection of intrauterine pathologies is of great scientific and practical importance in maintaining reproductive health. Modern research indicates that early diagnosis is a crucial factor not only for the timely detection of diseases but also for preventing severe complications and increasing treatment efficacy.

Research conducted by foreign researchers emphasizes the role of prenatal diagnostics in early detection. In particular, a study conducted by Supriyatiningsih and co-authors demonstrated the high importance of screening and ultrasound examinations in the early detection of fetal pathologies, substantiating that these methods serve to improve reproductive health indicators [1]. At the same time, the medical literacy of the population and the level of access to healthcare services are noted as important factors in early diagnosis.

In the clinical guidelines developed by Pymar H. et al., ultrasound examination is recognized as the primary diagnostic method for identifying intrauterine pathologies. The authors emphasize the need for a comprehensive assessment of clinical signs, laboratory indicators, and instrumental examinations to increase diagnostic accuracy. In particular, the importance of an individual and cautious approach is noted, as incorrect diagnosis can increase the risk of complications [2].

Domestic studies have also shown that the issue of early diagnosis is relevant. In the research of M.Kh. Kattakhodzhaeva and co-authors, the effectiveness of simple and inexpensive screening methods (visual examination, acetic acid tests, and Lyugol's solution) in detecting cervical diseases was substantiated. The authors emphasize that the widespread use of these methods in primary care increases the chances of detecting diseases at an early stage [3].

Also, the analysis conducted by Obidova O.A. showed the leading role of the main etiological factors of cervical pathology, in particular, the human papillomavirus (HPV), and highlighted the importance of screening and preventive measures. The author notes that regular screening examinations allow for the detection of the disease at an asymptomatic stage, which in turn improves treatment outcomes [4].

The analyzed literature indicates that a comprehensive approach—specifically the combined use of clinical, instrumental, and laboratory methods—is considered the most effective for the early diagnosis of intrauterine pathologies. At the same time, improving screening programs, implementing modern diagnostic technologies, and increasing the medical literacy of the population will serve to further increase the effectiveness of early detection.

Applying a comprehensive approach to the early diagnosis of intrauterine pathologies is considered one of the highly effective strategies in modern gynecology. This approach includes several diagnostic components: clinical assessment, instrumental examinations, and laboratory and morphological analyses. As a result, it

is possible to identify pathological processes in the early stages, assess the dynamics of the disease's development, and develop individual treatment tactics.

Clinical assessment is the first stage of early diagnosis and is based on identifying the patient's complaints, medical history, and risk factors. In women of reproductive age, symptoms such as menstrual cycle disorders, hyperpolymenorrhea, intermittent bleeding, and infertility can be early manifestations of intrauterine pathology. At the same time, it is insufficient to rely solely on clinical symptoms, as some pathologies can be asymptomatic for a long time.

Instrumental diagnostics, particularly ultrasound, play a key role in early detection. Ultrasonography allows for the determination of the condition of the uterine cavity, endometrial thickness, and the presence of polyps or submucosal nodules. Research indicates that ultrasound is a non-invasive, safe, and highly accurate method [2]. However, in some cases, ultrasound results may not provide sufficient information, which requires the use of additional research methods.

Hysteroscopy is one of the "gold standard" methods for detecting intrauterine pathologies. This method allows for a direct visual assessment of the uterine cavity and simultaneous diagnostic biopsy. This helps to make an accurate diagnosis through morphological examinations. Morphological and immunohistochemical analyses play an important role in determining the proliferative activity of endometrial tissue, receptor status, and inflammatory processes.

The use of screening methods also plays an important role in increasing the effectiveness of early diagnosis. Simple and inexpensive diagnostic methods, particularly visual examinations, acetic acid tests, and Lyugol's solution, can be widely used in primary healthcare, allowing for the detection of pathological changes at early stages [3]. In addition, screening programs aimed at detecting HPV infection play an important role in the prevention and early diagnosis of cervical pathologies [4].

Another important aspect of the integrated approach is the integration of diagnostic results and individual assessment. Since the progression of the disease may be different in each patient, a precise diagnosis and the selection of optimal treatment tactics can be achieved through the combined analysis of clinical and laboratory data. At the same time, early diagnosis increases treatment effectiveness and reduces the risk of complications and relapses.

The results obtained show that the application of a comprehensive approach to the early detection of intrauterine pathologies significantly increases diagnostic accuracy, allows for the detection of diseases at an early stage, and plays an important role in maintaining reproductive health. Therefore, it is advisable to widely implement this approach in modern medical practice.

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