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**MISDIAGNOSIS OF ACUTE APPENDICITIS IN WOMEN:
A RETROSPECTIVE ANALYSIS OF GYNAECOLOGICAL MIMICS**

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Relevance. Several gynecological conditions – including endometriosis, ruptured endometrioid cysts, ovarian torsion, and pelvic inflammatory disease – frequently mimic acute appendicitis. However, they are often misdiagnosed as appendicitis, leading to unnecessary appendectomy. The rate of negative appendectomies (removal of a normal appendix) is significantly higher in women of reproductive age, ranging from 20% to 30%, compared to 5% to 10% in men. This discrepancy is largely attributable to the overlapping clinical presentation of gynecological pathologies with appendicitis. Factors contributing to this diagnostic failure include nonspecific symptoms, normalization of pelvic pain in women, and reliance on low-accuracy imaging such as ultrasound.

Aim: to identify parameters that contributed to the initial misdiagnosis of patients with acute gynecological diseases.

Materials and methods. A retrospective study was conducted using clinical records from the Department of General Surgery of the 5th City Clinical Hospital in Minsk. A total of 16 patients were included, and their medical records were reviewed to identify diagnostic markers that could have been used to exclude differential diagnoses and to evaluate their actual utility in clinical practice. Data collected included initial and final diagnoses, pain characteristics, gynecological examination findings, biochemical markers, time interval between admission and operation, and ultrasound results. These data were then analyzed to identify parameters that contributed to the initial misdiagnosis.

The cohort was further stratified into patients whose final diagnoses included acute appendicitis and those whose diagnoses were solely gynecological. Diagnostic markers were compared between the two groups, focusing on pain localization, associated symptoms (nausea, vomiting, fever), and the effectiveness of diagnostic tests and examinations (gynecological consultation, ultrasound) to determine their diagnostic utility.

Results and their discussion. The most common symptoms were abdominal pain, nausea, vomiting, and weakness. Abdominal pain was further classified by localization as: lower (81.3%), hypogastric (12.5%), or epigastric (6.3%); pain migration occurred in 25% of patients. Lower abdominal pain frequency was comparable between patients with appendicitis (76%) and those without (86%), negating pain localization as a meaningful diagnostic discriminator.

Pelvic ultrasound findings were compared with final surgical diagnoses. Among 16 patients, 6 (37.5%) did not receive a pelvic ultrasound, 7 (43.75%) had concordant findings, and 3 (18.75%) had discordant findings. The concordance rate below 50% raises doubt about the reliability of pelvic ultrasound in distinguishing appendicitis from gynecological pathology.

Further, biomarkers such as CRP and WBC were evaluated to identify possible inflammation. When looking at CRP values: 50% of patients didn't have CRP data, 31.25% had higher CRP level and 12.5% were normal. Gynecological examinations were performed on 11 patients; out of which, 7 had a conclusion consistent with the final diagnosis highlighting its value.

Conclusions. Overlapping symptoms and the poor discriminative value of pain localization and pelvic ultrasound contribute substantially to the misdiagnosis of gynecological diseases as acute appendicitis. Gynecological examination demonstrated higher diagnostic utility and should be routinely incorporated; however, more discriminating tests such as computed tomography (CT) are recommended to achieve a more accurate initial diagnosis and reduce unnecessary surgery in female patients.