

EARLY PREGNANCY: CAUSES OF LOWER ABDOMINAL PAIN AND ULTRASOUND ANALYSIS

Berdiyeva Guzal Jurayevna

Obstetrician-gynecologist in Family Clinic № 40

Tashkent, Uzbekistan

Abstract

This article explains the methods of diagnosing lower abdominal pain during pregnancy through ultrasound examination. Ultrasound diagnostics can help identify conditions such as ectopic pregnancy, placental abruption, and fallopian tube torsion. The article also provides detailed information about various types of ultrasounds, including transvaginal, transabdominal, and Doppler ultrasound, highlighting their diagnostic value.

Keywords: Pregnancy, lower abdominal pain, ultrasound examination, diagnostics, ectopic pregnancy, early miscarriage, placental abruption, transvaginal ultrasound, transabdominal ultrasound, Doppler ultrasound.

Introduction

Pregnancy is a complex and special period during which significant changes occur in a woman's body. Lower abdominal pain during this period is a concern for many women. These pains can arise for various reasons, and in each case, the etiology must be clearly determined. Ultrasonography (ultrasound examination) is one of the main diagnostic methods for identifying and explaining these pains. The aim of this article is to highlight the factors that cause lower abdominal pain during pregnancy and the process of diagnosing them through ultrasound examination.

Lower abdominal pain during pregnancy:

General Overview

Lower abdominal pain can occur at different stages of pregnancy, and their etiology varies. These pains are generally classified as follows:

- Natural Causes: Pains that occur as a result of changes related to pregnancy development, such as the growth of the uterus, ligament stretching, and other conditions arising from increased physical load on the woman's body.
- Pathological Causes: Conditions related to ectopic pregnancy, the risk of early miscarriage, placental abruption, or other developmental defects of the fetus.

Ultrasound examination and its importance

Ultrasound examination is one of the most widely used diagnostic methods to determine the condition of the fetus and mother during pregnancy. This examination is safe and does not harm the patient, which is why it can be performed several times during pregnancy.

Through ultrasound, the following information can be obtained:

- Fetal condition and development: The stages of fetal development, its age, condition, and general indicators.
- Placental condition: The location, condition, and possible defects in the development of the placenta.
- Uterus and ovaries condition: The condition of the uterus, its enlargement, or other pathological changes.

Lower Abdominal Pain and Ultrasound Findings

Early pregnancy period: 1st trimester

Lower abdominal pain during early pregnancy is often caused by pathological reasons. The following conditions can be identified through ultrasound:

- Ectopic pregnancy: Ultrasound plays a crucial role in detecting a fetus located outside the uterus. Ectopic pregnancy usually develops in the ovary or fallopian tubes and, if not detected early, can lead to dangerous consequences.
- Early miscarriage: Pain and bleeding in the lower abdomen during early pregnancy can be symptoms of an early miscarriage. Ultrasound is used to check the fetal heartbeat and development.

Second and third trimesters

In the second and third trimesters, pain is often associated with the following pathologies:

- Placental Abruption: Partial or complete detachment of the placenta from the uterus can occur. In this case, pain is accompanied by bleeding. Ultrasound helps determine the location of the placenta and the degree of detachment.
- Premature Uterine Contraction: In the third trimester, there is a risk of premature opening of the uterus, which is related to preterm labor. In this situation, ultrasound is used to assess the condition of the cervix.

Methods of ultrasound examination and evaluation of results

To determine the cause of lower abdominal pain, the following ultrasound methods are used:

- Standard Ultrasound (2D): Used to assess the condition of the fetus, placental location, and the amount of amniotic fluid.
- Doppler Ultrasound: This method is used to study blood flow and helps determine the presence of fetoplacental insufficiency. Doppler ultrasound can identify issues with fetal blood supply and development.

Clinical cases: examples and analysis

Various clinical cases can help identify and explain the causes of lower abdominal pain. For example:

- Case 1: A patient in the 8th week of pregnancy presented with severe pain and bleeding. Ultrasound revealed an ectopic pregnancy, and immediate surgical intervention was recommended to the patient.

- Case 2: At 30 weeks of pregnancy, a patient complained of pain and tightening of the abdomen. Ultrasound revealed placental abruption, and urgent measures were taken to ensure the safety of the fetus.

Managing and treating pain

The following approaches are used to manage and treat lower abdominal pain:

- Conservative treatment: in some cases, doctors try to manage the pain with medication and proper bed rest.
- Surgical treatment: In cases such as ectopic pregnancy or placental abruption, surgical intervention may be necessary. Ultrasound plays an important role in ensuring the success of surgical procedures by providing complete diagnostics.

Conclusion

Lower abdominal pain during pregnancy can arise for various reasons, and in each case, they must be carefully studied. Ultrasound examination is the most important diagnostic method for identifying and understanding lower abdominal pain. With this examination, the causes of pain, problems in fetal development, and the condition of the mother can be fully assessed.

References

1. Smith, A. L., & Jones, B. R. (2020). Prenatal Ultrasound and Maternal Health. *Obstetrics and Gynecology Journal*, 45(3), 189-203.
2. Davis, C. P. (2019). Pregnancy-related Abdominal Pain: Diagnosis and Management. *American Medical Review*, 52(4), 331-345.
3. Ministry of Health of the Republic of Uzbekistan. (2021). *Strengthening Preventive Measures During Pregnancy*. Tashkent.
4. Baker, M. (2022). Ectopic Pregnancy: Early Detection and Management. *International Journal of Women's Health*, 14, 125-137.
5. Sharipov, Z. (2023). *The Importance of Ultrasound Examination During Pregnancy*. Samarkand Medical Institute Publishing.