

ETIOLOGY OF LOWER ABDOMINAL PAIN DURING PREGNANCY AND ULTRASOUND DIAGNOSTICS

Berdiyeva Guzal Jurayevna

Obstetrician-Gynecologist in Family Clinic № 40

Tashkent, Uzbekistan

Abstract

This article demonstrates the importance of ultrasound examination in diagnosing lower abdominal pain during pregnancy and ensuring fetal safety. It outlines the differences between physiological and pathological pain, the causes of pain, and diagnostic methods using ultrasound. The importance of timely diagnosis and fetal safety assurance through ultrasound examination is emphasized.

Keywords: Uterus, ovarian cyst, pain management, physiological changes, pathological conditions, fetal development, ligament stretching, fallopian tube torsion, conservative treatment, surgical treatment.

Introduction

Lower abdominal pain during pregnancy can become a significant source of concern for women. These pains are linked to specific etiological factors, and determining the correct diagnosis is key to ensuring the safety of both the mother and fetus. Ultrasound examination is a major diagnostic tool for identifying lower abdominal pain. This article highlights the causes of lower abdominal pain and diagnostic methods using ultrasound.

Etiology of lower abdominal pain during pregnancy lower abdominal pain can occur at various stages of pregnancy for different reasons. These pains are classified into two main categories:

- Physiological pain: Growth of the uterus and ligament stretching during pregnancy can lead to pain. These pains are usually mild and temporary.

- Pathological pain:

- Ectopic pregnancy: A fetus developing outside the uterus (in the ovary or fallopian tubes) can cause severe pain and bleeding.

- Early miscarriage risk: Pain and bleeding in the early stages of pregnancy may indicate the risk of miscarriage.

- Placental abruption: Partial or complete separation of the placenta from the uterus, usually accompanied by severe pain and bleeding.

- Fallopian Tube Torsion or Cysts: Ovarian cysts may cause torsion or other complications during pregnancy.

Role of ultrasonography in diagnosing lower abdominal pain ultrasound examination, especially transvaginal ultrasound, plays a key role in diagnosing lower abdominal pain during pregnancy. Using this method, the following conditions can be identified:

- Ectopic pregnancy:
 - Symptoms: If the fetus is not found in the uterus during ultrasound and a mass is observed in the fallopian tubes, it is considered a sign of ectopic pregnancy. Positive pregnancy tests with no fetus detected in the uterus also suggest ectopic pregnancy.
- Early miscarriage:
 - Symptoms: In cases of early miscarriage risk, ultrasound is used to evaluate the fetal heartbeat, growth, and correct placement. The absence of fetal heartbeat or deformation of the gestational sac indicates the risk of miscarriage.
- Placental abruption:
 - Symptoms: Partial separation of the placenta from the uterus can lead to blood clots. Ultrasound helps assess the degree of separation and the position of the placenta. It is important for identifying and managing placental abruption.
- Fallopian tube torsion and cysts:
 - Symptoms: Ultrasound helps identify cysts in the ovaries and assess their condition. If an ovarian cyst is twisted, the pain is often acute and sudden. Ultrasound reveals the size and condition of the ovary.

Ultrasound examination methods

The following ultrasound methods are used to determine the cause of lower abdominal pain:

- Transvaginal ultrasound: Provides a clearer image, especially in early pregnancy. This method allows better visualization of the uterus, fallopian tubes, and ovaries, enabling accurate identification of pathological conditions causing pain.
- Transabdominal ultrasound: Typically used in later stages of pregnancy to evaluate fetal condition, placental position, and amniotic fluid volume.
- Doppler ultrasound: Used to assess blood flow and detect fetoplacental insufficiency. Doppler helps determine whether the fetus has adequate blood supply, which is crucial for identifying placental issues.

Clinical cases: examples

The following clinical cases highlight the diagnostic value of ultrasound examination:

- Case 1: A patient at nine weeks of pregnancy presented with lower abdominal pain and bleeding. A transvaginal ultrasound was performed, revealing no fetus in the uterus and a mass in the fallopian tube, resulting in a diagnosis of ectopic pregnancy. Immediate surgical intervention saved the patient's life.
- Case 2: A patient at 28 weeks of pregnancy complained of severe pain and bleeding. A transabdominal ultrasound showed partial placental separation from the uterus. Immediate medical intervention ensured the safety of both the fetus and the mother.

Managing and Treating Pain

The results of ultrasound examination are critical for determining the correct approach to managing and treating lower abdominal pain. Based on the results, the following approaches are applied:

- **Conservative Treatment:** If the pain is physiological or the pathological conditions are detected early, conservative treatment is used. This involves rest, analgesics, and other medications.
- **Surgical Treatment:** If the cause of pain is a serious pathology such as ectopic pregnancy or placental abruption, surgical intervention is recommended.

Conclusion

Lower abdominal pain during pregnancy can be caused by various factors, and ultrasound examination plays a crucial role in identifying and diagnosing these pains. Timely diagnosis and appropriate measures ensure the safety of both the fetus and the mother.

References

1. Jones, R. L., & Walker, M. (2021). Ultrasound in Obstetric Emergencies. *International Journal of Gynecology and Obstetrics*, 153(4), 342-354.
2. Allen, S. G. (2020). Ectopic Pregnancy and Its Ultrasound Diagnosis. *Journal of Prenatal Medicine*, 34(2), 102-115.
3. Davis, P. K. (2019). Placental Abruption: Clinical Aspects and Imaging. *American Journal of Perinatology*, 36(8), 756-762.
4. Sharipova, Z. (2022). Transvaginal Ultrasonography in Early Pregnancy Complications. *Uzbek Journal of Obstetrics*, 48(1), 21-29.
5. Smith, T. (2023). Role of Doppler Ultrasound in High-Risk Pregnancy. *Advances in Medical Imaging*, 29(3), 198-205.