

Ultrasound Diagnosis of Common Obstetrics and Gynecology Acute Abdomen

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Abstract: Obstetrics and gynecology acute abdomen is a common type of disease in the clinic. Patients generally show urgent results when they come to the clinic. The disease develops rapidly and the early clinical manifestations are concealed. However, the disease is rapid and life-threatening, so clinicians are required to make rapid and accurate diagnosis and intervention. Among various examination measures, ultrasonography has become the first choice for examination of obstetrics and gynecology acute abdomen because of its non-invasive, rapid and effective advantages. Most of the acute abdomen of obstetrics and gynecology has a certain relationship with bleeding. If timely and accurate diagnosis and treatment cannot be obtained, it will seriously endanger the patient's life safety. Therefore, how to make accurate diagnosis and treatment of obstetrics and gynecology acute abdomen is of great clinical significance. With the continuous development of information technology and the continuous improvement of medical examination methods, the application of ultrasound diagnosis in the field of obstetrics and gynecology has become more and more extensive, and played a major role in the clinical practice of obstetrics and gynecology acute abdomen, significantly reduced the mortality rate of patients with acute abdomen in obstetrics and gynecology. This paper first briefly introduces the clinical features and audio-visual characteristics of various common obstetrics and gynecology acute abdomen, and then analyzes the value of ultrasound diagnosis of obstetrics and gynecology acute abdomen. The purpose is to explain the application status and future of ultrasound diagnosis in obstetrics and gynecology, and development prospects.

1. Introduction

In recent years, with the rapid development of ultrasound technology, ultrasonography has been able to make a more accurate and rapid diagnosis of obstetrics and gynecology emergency, providing accurate information for the clinic, and its accuracy rate can reach 90%, thus becoming a clinician. The choice of treatment mode provides more time, and timely intervention and timely treatment can reduce the patient's pain and reduce the probability of death. For those patients who are not treated surgically, the sonographer can also observe and follow up to evaluate the clinical treatment effect. The application and diagnostic significance of ultrasound medicine in acute abdomen of obstetrics and gynecology are discussed. For obstetrics and gynecology acute abdomen, the advantages of ultrasonography are that it is simple, safe, intuitive, non-invasive, inexpensive, easy to follow up, and the differential diagnosis is fast and accurate, which can be used as its preferred clinical examination method. With the advancement of medical science and the improvement of examination techniques, ultrasonography can accurately diagnose the type of acute abdomen in obstetrics and gynecology, and accurately assess the degree of injury, such as threatened abortion, inevitable abortion, incomplete abortion, ectopic pregnancy, type, The amount of bleeding, the type and time of the umbilical cord around the neck and the body, the location of the uterus perforation, the location of the uterus rupture, the size of the uterus, the degree of uterine rupture and the degree of placenta previa, etc., have greatly improved their clinical status. Not only that, ultrasound can also accurately screen between non-gynecological acute abdomen and obstetrics and gynecology acute abdomen, abdominal pain caused by other systems (such as urethra or lower ureteral stones, appendicitis, intestinal lesions, etc.) can also make a definitive diagnosis

and assist clinicians in the rapid and accurate diagnosis of patients.

2. Clinical features and audio-visual characteristics of various common obstetrics and gynecology acute abdomen

Abortion is one of the more common causes of acute abdomen in obstetrics and gynecology. Abortion is roughly divided into threatened abortion, inevitable abortion, incomplete abortion, etc. The main symptoms are abdominal pain, bleeding, etc. Threatened abortion can be seen in the intrauterine gestational sac, and the embryo and the heart tube beat in the sac, indicating that the embryo survives; if the original fetal heartbeat is too low, the tendency of abortion occurs; the fetal heartbeat is a scintillation blood flow signal, and the hyperechoic chorion There is still low-resistance trophoblastic blood flow. Inevitable abortion can be seen in the deformation of the gestational sac, shrinkage of the edge, loss of position, and other symptoms; if the gestational sac is not peeled off, low-resistance trophoblastic blood flow can still be recorded. Incomplete abortion can be seen that the uterus is enlarged or full, there are loose bands or loose light in the uterine cavity; irregular, uneven clump echoes in the uterine cavity, or low echo or high echo should be differentiated from hydatidiform moles.

Ectopic pregnancy is commonly known as ectopic pregnancy. With the changes in modern living environment and lifestyle, the incidence of ectopic pregnancy has increased year by year, and because its pre-existing symptoms are not obvious, it is very easy to endanger the patient's life safety. In general, patients will show sudden and severe abdominal pain, and even shock coma. If there is no timely and effective medical intervention, they may lose their lives due to excessive blood loss. Ectopic genitals generally include ovarian pregnancy, tubal pregnancy, abdominal pregnancy, and cervical pregnancy, and about 95% occur in the fallopian tubes. In the ultrasound diagnosis, we can only observe that the uterus is small, and there is no gestational cystic sonogram in the uterine cavity, but there is a solid mass of mixed echo in the pelvic cavity, which can show uneven high and low echo. The shape of the mass is generally irregular, and is closely related to the uterus. Sometimes the endometrial separation sign may occur, forming a pseudopregnancy sac, which should be distinguished from intrauterine pregnancy; ectopic pregnancy has a long rupture time and a large amount of bleeding. In patients, there is a phenomenon that the intestines and uterus float when they are examined by ultrasound. However, in clinical practice, patients with atypical ultrasound images and inaccurate clinical information (such as irregular menstruation and no history of obvious menopause) are sometimes unable to obtain the diagnosis of ectopic pregnancy. At this time, the clinician is required to be in an ectopic position. Careful identification and diagnosis between pregnancy, ovarian corpus luteum, pelvic inflammatory mass, endometriosis and ovarian cyst torsion, although blood B-HCG can be used as a diagnostic indicator with high reference Value, but waiting for a longer time will delay the diagnosis and treatment of acute abdomen. Using CDFI technology, we can also observe nourishing blood flow signals around the pelvic mass during the examination of ectopic pregnancy, so ultrasound plays an increasingly important role in the diagnosis and treatment of ectopic pregnancy.

When the umbilical cord is around the neck, the ultrasound can show U-shaped impression, serrated impression or W-type impression on the neck of the fetus. Ultrasound with umbilical cord can be used to detect the same impression on the abdomen or chest of the fetus. In the ultrasound examination, in order to avoid missed diagnosis and misdiagnosis of the fetus in patients with atypical posterior occipital indentation, we can rotate the probe, perform multi-section scanning, or switch to a higher frequency probe. Ultrasound can also be monitored and recorded in real time when fetal fetal heart rhythm changes. With the development of science and advances in technology, ultrasonic detectors are becoming more and more sophisticated, and ultrasonic inspection technology is getting higher and higher. In the routine examination of pregnant women, it was found that about 25 % of the umbilical cord around the neck, but no obvious symptoms, and the follow-up showed that most of the umbilical cord around the neck for 1 ~ 2 weeks of pregnant women can be delivered.

3. Case analysis

The selected data were 75 patients with acute abdomen of obstetrics and gynecology admitted to the First Affiliated Hospital of Zhengzhou University from October 2009 to February 2011, aged 19-55 years, with an average age of 42 years. The clinical manifestations of selected patients were mainly characterized by sudden abdominal pain. Among them, 62 cases had vaginal bleeding, nausea and vomiting; 2 cases had shock; 21 cases had menstrual disorders; 58 cases had history of menopause. All patients were confirmed by surgical pathology. The results of surgical pathological diagnosis included 48 cases of ectopic pregnancy, 15 cases of threatened abortion, 6 cases of ruptured corpus luteum, 4 cases of ovarian tumor pedicle, and 2 cases of acute pelvic inflammatory disease.

Of the 75 patients with acute abdomen, 46 were diagnosed with ectopic pregnancy, 15 with threatened abortion, 5 with ruptured ovarian corpus luteum, 4 with ovarian tumor pedicle, 3 with acute pelvic inflammatory disease, 1 with appendicitis abscess, and pelvic inflammatory mass. 1 case. Compared with the surgical pathological results, the correct rate of ultrasound diagnosis was 96%, of which 2 cases of old ectopic pregnancy were misdiagnosed as appendicitis abscess, 1 case was misdiagnosed as pelvic inflammatory mass; 1 case of ovarian corpus luteum was misdiagnosed as acute pelvic inflammatory disease.

Acute abdomen is a common disease in obstetrics and gynecology. The onset is acute and the condition is dangerous. Ultrasound has high sensitivity to pelvic two-dimensional structure and uterine artery and ovarian blood flow, and is not affected by obesity and abdominal scar. In the case of intestinal cavity inflation and other disturbances, the position of the lesion can be found by the activity of the probe tip. Ectopic pregnancy is the most common acute abdomen in gynecology, with menopause, irregular vaginal bleeding, abdominal pain as the main symptoms. There is no gestational sac in the uterus during tubal pregnancy, no fetal buds and original heart tube pulsation. A hypoechoic area with irregular shape and blurred edges was seen next to the palace. The gestational sac developed to a certain extent, and a circular or elliptical gestational sac dark area was seen in the hypoechoic area. In a few cases, even the inner bud and the original bud were seen. Heart tube beats. However, the incidence rate of false gestational sac is about 20%. It is caused by pregnancy-induced endometrial decidualization and a small amount of blood stored in the uterine cavity. The outline is unclear, the level is incomplete, the edge is irregular, and it does not increase with pregnancy. Large, sometimes narrowed down. Ultrasound has a high accuracy rate in the diagnosis of ectopic pregnancy. In this study, 48 patients with ectopic pregnancy were diagnosed by ultrasound. Threatened abortion refers to a small amount of vaginal bleeding that occurs early in pregnancy, and is accompanied by mild lower abdominal pain and backache. May cause miscarriage, it is also possible to continue pregnancy after appropriate treatment. Ultrasound examination has fetal heartbeat, fetal sac and fetal movement. In this paper, 15 cases of threatened abortion, the accuracy of ultrasound diagnosis is 100%. Ovarian tumor pedicle reversal ranks fifth in obstetrics and gynecology acute abdomen, which is characterized by severe lower abdominal pain, nausea, vomiting and tenderness. Ultrasound showed that the normal ovarian echo disappeared on the affected side, and the pelvic cavity showed a liquid dark area. The mixed bag was visible at the side of the uterus, and the echo of the pedicle was enhanced and disordered. Ultrasound of ovarian corpus luteum can be seen in the attachment with an irregular echo zone, the capsule wall is invaginated, and the pelvic cavity has effusion. Ultrasound of acute pelvic inflammatory disease shows irregular salami-like hypoechoic sounds along the ovary, which may be associated with dark areas of the uterus rectum. The pelvic inflammatory mass may or may not be accompanied by tenderness, and the inside of the mass is a mixed echo, and the boundary may be clear or blurred. Ultrasound of the appendix abscess showed a messy hypoechoic mass in the right lower abdomen, which was associated with enhanced echo in the posterior wall. In summary, ultrasound has a higher correct rate for the diagnosis of obstetrics and gynecology acute abdomen, the correct rate of ultrasound diagnosis in this study is 96%. Ultrasound is the most effective method for diagnosing acute abdomen in obstetrics and gynecology. It can diagnose quickly, accurately and timely, and it is non-invasive, simple and low-cost. It is worthy of popularization and

application.

4. Conclusion

Obstetrics and gynecology acute abdomen is a common disease in women, the main symptom is acute abdominal pain. With the rapid development of science and technology, the increasingly sophisticated ultrasound testing equipment and the continuous advancement of medical technology, the accuracy of ultrasound in the diagnosis of obstetrics and gynecology acute abdomen is significantly improved. Obstetrics and gynecology acute abdomen has an opportunity to occur at any age, mainly women of childbearing age, the cause of the disease is very complicated, and the speed of the disease is fast, if the rapid diagnosis and treatment can not be obtained, the consequences are very dangerous. Therefore, how to use ultrasound to quickly and accurately diagnose the acute abdomen of obstetrics and gynecology has become a hot topic in clinical medicine. The accuracy of ultrasound examination is high and fast, and according to the characteristics of ultrasound, the patient's lesions, pathological types, and types and causes of acute abdomen can be diagnosed, and the physician can be positioned to reduce the pain and surgery for the patient. Injury, to guide the clinical need for emergency surgery.

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