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CASE REPORT

Sonographic Diagnosis of an Abdominal Pregnancy

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ABSTRACT

Presented is a case of abdominal pregnancy at the left adnexum, which was diagnosed preoperatively by ultrasonography. Exploratory laparotomy revealed a moderate amount of blood in the peritoneal cavity and a gestational sac with live fetus on the left ovary and left tube with placental tissue attached to the infundibulopelvic ligament. Left salpingo-oophorectomy was performed without intraoperative and postoperative complications.

Key words: abdominal pregnancy, ultrasonography

Abdominal pregnancy is such an unusual form of ectopic gestation that the diagnosis is often missed or delayed. Because of the difficulty in diagnosis, it often goes undetected and death result from massive bleeding.[1] Almost all cases of abdominal pregnancy follow early rupture or abortion of a tubal pregnancy into the peritoneal cavity, and finally the placenta develops its entire attachment outside the fallopian tube. Clinical findings are extremely variable, and the preoperative diagnosis is unsuspected in the majority of cases.[2] Sonography is recommended as a rapid noninvasive method to aid in the diagnosis but continues to be difficult in spite of recent advances in sonographic technology. The principal impediment is a low suspicion for the diagnosis because of its relatively asymptomatic nature and the lack of specificity of symptoms when present.[3] We describe a patient in whom an abdominal pregnancy was diagnosed early on the basis of sonographic findings.

Case Report

A 22- year-old woman presented herself at our emergency room on August 13, 1998, with the symptoms of lower quadrant dull pain for 5 days and amenorrhea since her last normal menstrual period, May 7, 1998. About 3 weeks after her missed period, vaginal bleeding occurred for 2 days. The duration and amount of bleeding were less than her previous cycles. Two weeks later she had an illegal abortion (technique unknown), with no vaginal bleeding or abdominal pain afterwards. Five days before admission, she developed dull pain in lower abdomen without fever.

Physical examination revealed an illed, pregnant woman with a tender lower abdomen and mild anemia. Left adnexal cytic mass about 10 cm in diameter with a normal size uterus were detected from the pelvic examination. Transabdominal ultrasonography showed a gestational sac with single viable fetus of 14 week of gestation situated between the uterus

and bladder without uterine wall being demonstrated between the fetus and bladder, close approximation of fetal parts to the maternal abdominal wall, empty uterine cavity, and a large amount of free fluid in the cul de sac.

Emergency laparotomy was performed because of suspected internal bleeding related to abdominal pregnancy. During laparotomy 1000 ml of blood was found in the peritoneum. A 10 cm amniotic sac with a viable fetus about 14 weeks gestational age was found between the left ovary, left tube, and infundibulopelvic ligament. Bilateral fallopian tubes and uterus were carefully explored and the ruptured site at isthmic part of left tube was noted. One-third of placenta was implanted over the left infundibulopelvic ligament, bleeding site was identified from the remaining unattached surface of the placenta. The gestational sac and the placenta were removed including left tube and left ovary without difficulty. There were no intraoperative and postoperative complications. The patient made good progress and was discharged three days after operation.

Discussion

Almost all cases of abdominal pregnancy follow early rupture or abortion of a tubal pregnancy into the peritoneal cavity. After rupture from the fallopian tube, typically the growing placenta maintains its tubal attachment but gradually encroaches upon and implants in the neighboring serosa such as infundibulopelvic ligament as in this case. When abdominal pregnancy occurs, its early diagnosis is difficult, owing to the atypical presentation and the low index of suspicion for the condition. In this case, the patient gave a history of amenorrhea, abdominal pain, abnormal vaginal bleeding, and pregnancy termination. The physical examination revealed diffuse nonfocal lower abdominal tenderness and sign of anemia. Prompt diagnosis of ectopic pregnancy was made according to her symptoms and signs, and later transabdominal ultrasonography was used successfully to diagnose abdominal pregnancy preoperatively.

Akhan and colleagues[4] reported the following sonographic criteria to be suggestive of abdominal pregnancy

1. visualization of the fetus separate from the uterus
2. failure to visualize uterine wall between the fetus and urinary bladder
3. close approximation of fetal parts to the maternal abdominal wall, and
4. eccentric position (relation of fetus to uterus) or abnormal fetal attitude (relation of fetal

parts to one another) and visualization of extrauterine placental tissue.

All of these features were observed in our case. Even with excellent equipment in well trained hands, however, a sonographic diagnosis of abdominal pregnancy is missed in 25 – 50 percent of cases.[5,6]

Because surgery for abdominal pregnancy may precipitate torrential hemorrhage. Hence, it is essential to recognise preoperatively, so that adequate blood supply can be made available with complete surgical equipment. The operation that performed with deliberate care and caution can avert many of its complications and associated morbidity and mortality. Surgery revealed a gestational sac with live fetus on the left ovary and left tube with placental tissue attached to the left infundibulopelvic ligament. This site of placental attachment was uncommon. Fortunately, blood vessels supplying the placenta could be easily ligated before the removal of placental which always carries the risk of hemorrhage thus they were successfully removed.

In conclusion, clinical recognition of abdominal pregnancy continues to be a problem. Although the use of real-time ultrasound may provide a more helpful and accurate information, but the early diagnosis of abdominal pregnancy depends primarily upon the appreciation of history, clinical clues, and a high index of suspicion.

References

1. Atrash HR, Friede A, Hoque CJR, Abdominal pregnancy in the United States-Frequency and maternal mortality. Obstet Gynecol 1987;69:333-7.
2. Martin JN, Sessums JK, Martin RW, Pryor JA, Morrison JC. Abdominal pregnancy:current concepts of management. Obstet Gynecol 1988;71:549-57.
3. Angtuaco TL, Shah HR, Neal MR, Quirk JG. Ultrasound evaluation of abdominal pregnancy. Crit Rev Diagn Imaging 1994;35:1-59.
4. Akhan O, Cekirge S, Senaati S, Besim A. Sonographic diagnosis of an abdominal ectopic pregnancy. Am J Radiol 1990;155:197.
5. Stanley JH, Horger III EO, Fagan CJ, Andriole JG, Fleischer AC. Sonographic findings in abdominal pregnancy, AJR 1986;147:1043-6.
6. Costa SD, Presley J, Bastert G. Advanced abdominal pregnancy. Obstet Gynecol Surv 1991;46:515.