

Obstetrical Ultrasound Quiz

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A 35 year old gravida 2, para 1, woman whose only child is 18 years old, was referred at 26 weeks of gestation. She had history of lower abdominal pain when she was approximately 12 weeks pregnant that resolved spontaneously. At about the same time, she had light vaginal bleeding for a few days.

The height of the uterine fundus was difficult to measure, although the fetal parts were easily felt.

Fetal heart tones were 152 beats per minute and regular.

Pelvic examination revealed that the cervix was displaced anteriorly and closed. There was a mass felt in the posterior cul-de-sac.

An ultrasound examination was performed. Representative pictures are shown (Figures 1 and 2).

What is your diagnosis?

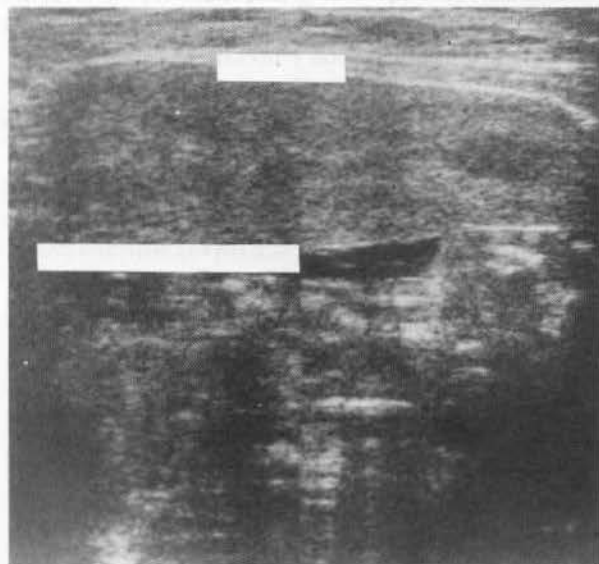


Figure 1. Longitudinal scan in the midline: Symphysis pubis is to the right and the umbilicus is to the left.



Figure 2. Parasagittal scan (4 cm to the right of the midline). Same orientation as in Figure 1.

For the correct diagnosis and a review of the condition refer to the following pages.

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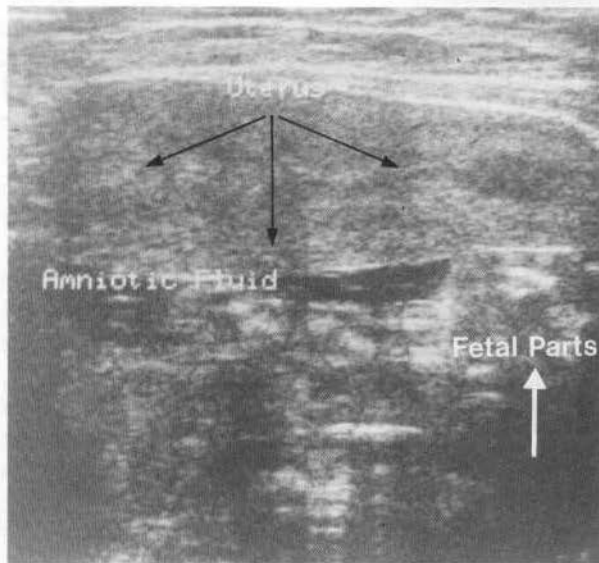


Figure 1. Labeled. The uterus is seen in its longitudinal axis. It is enlarged; however, there is no "uterine cavity". There are no fetal parts seen inside the uterus. Very small amount of amniotic fluid is seen posterior to the uterus with fetal parts between the uterus and the maternal posterior abdominal wall.

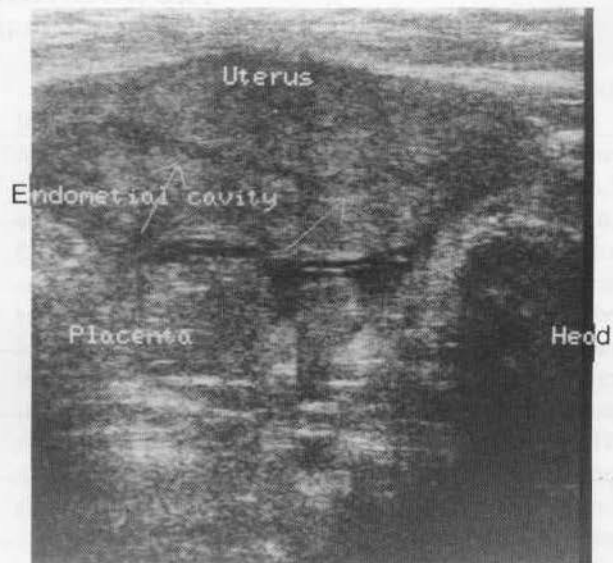


Figure 2. Labeled. The enlarged uterus is seen with an endometrial cavity, but not fetal parts. The fetal head is seen more clearly than in Figure 1. It is situated low in the pelvis (posterior cul-de-sac). A portion of the placenta is seen posterior to the uterus and closer to its fundus.

Abdominal Pregnancy

Diagnosis and management

This case represents an advanced abdominal pregnancy (Figure 1 labeled and 2 labeled). Laparotomy was performed and a liveborn female infant was delivered. The neonate weighed 1040 gms and her Apgar scores were 3 and 5 at 1 minute and 5 minutes respectively. The placenta which was attached to the mesentery, uterus, and the cul-de-sac was removed. The patient received eight units of packed red blood cells intraoperatively and did well postoperatively without need for further transfusion. The patient was discharged on the seventh postoperative day. The neonate had a relatively benign course and was discharged to home at eight weeks of age in good health.

Discussion

Abdominal pregnancy is a very rare obstetric complication (1:20,000-40,000 livebirths). It can be life-threatening. In the more recent reports, the maternal mortality was 0-18%. Because the placenta is not attached to the normal contractile myometrium, bleeding from its "bed" does not stop when the placenta separates, which can occur spontaneously at any time.

The diagnosis depends on accurate attention to the patients's history (i.e. early abdominal pain and vaginal bleeding) and to an accurate assessment of the physical findings (an ill-defined uterine contour, easily palpable fetal parts, abnormal fetal position, a cervix that is displaced upwards and anteriorly, and a posterior cul-de-sac mass). The diagnosis is confirmed by sonography.

Treatment is by immediate laparotomy and removal of the fetus regardless of the gestational age. This is because of the unpredictability of placental separation and the possible occurrence of sudden massive hemorrhage. There is no agreement on a "best" way to deal with the placenta. The removal of the placenta may be dangerous. Bleeding is usually

massive and it is often difficult to find and ligate all the feeding vessels. This is especially true if the placenta is attached to the posterior abdominal or lateral pelvic walls. Sometimes the placenta is attached to organs that will have to be removed as well (i.e. uterus, uterine tubes, ovaries, segment of bowel, etc). Because of this, some believe that it is best not to interfere with the placenta. Instead, the umbilical cord is tied and cut close to its base and the placenta is left in situ. The placenta will atrophy with time; however, there is an increased risk of infection with formation of a pelvic abscess and/or fistulae. Some use methotrexate in the hope of accelerating the necrosis and absorption of placental tissue but this practice has fallen into disfavor.

In my judgment, the best approach is to individualize. One has to carefully examine the placental attachments. If it is determined that the placenta can be safely removed with ligation of all feeding vessels and without the necessity of removing a vital organ, then it should be removed. This was successfully done in the case presented. Otherwise, the placenta should be left behind. For a more detailed review, the references should be consulted.

References

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