

CASE REPORT

Obstetrics

Undiagnosed advanced abdominal pregnancy with fetal demise: A case report

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Abstract

Background: Abdominal pregnancy is rare and non-fatal. There are no specific associated symptoms, especially in cases of an uncomplicated type, which can reach term gestation.

Case presentation: A 30-year-old gravida 2 para 1 presented to the labor ward as a referral with a confirmed intrauterine fetal demise (IUFD) by a transabdominal ultrasound at 36 weeks + 1 day. She was not in labor, had no drainage of liquor or per vaginal bleeding. A repeat scan confirmed the IUFD. Induction of labor was started but was unsuccessful. Intraoperatively, an abdominal pregnancy was found with a macerated stillbirth. The placenta was adherent

to the small intestines and was left in the abdomen. She was managed conservatively with intravenous fluids and antibiotics. Her postnatal follow-up was unremarkable.

Conclusion: Undiagnosed advanced abdominal pregnancies are common in low-resource settings, especially when antenatal care visits are not adhered to. Sensitization on antenatal care and ultrasound and magnetic resonance imaging, when accessible, are critical in the diagnosis of late-stage abdominal pregnancy.

Keywords: advanced abdominal pregnancy, intrauterine fetal demise, macerated stillbirth

Introduction

Abdominal pregnancy is an uncommon and life-threatening type of ectopic pregnancy, with high morbidity and mortality rate for both the mother and the fetus (1). It is defined as pregnancy in the peritoneal cavity exclusive of tubal, ovarian, or intraligamentary locations. It is primarily located in the peritoneal cavity or secondary to a ruptured ectopic pregnancy or tubal abortion (2). Abdominal pregnancies account for approximately 1.4% of all ectopic pregnancies, with an incidence of 1 in 10,000 – 30,000 pregnancies (3). The diagnosis of abdominal pregnancy poses a clinical challenge, particularly in low-resource settings (1,4). This is a case of undiagnosed advanced abdominal pregnancy with intra-abdominal fetal demise.

Case presentation

A 30-year-old gravida 2 para 1 presented to the labor ward at the Kenyatta National Hospital (KNH) as a referral with a confirmed intrauterine fetal demise (IUFD) by a transabdominal ultrasound at 36 weeks + 1 day. She was not in labor, had no drainage of liquor or per vaginal bleeding. She reported an absence of fetal movements for three days. An obstetrical ultrasound scan at the peripheral maternity facility two weeks before her current admission revealed a single intrauterine pregnancy in a cephalic presentation at 35 weeks and 2 days. A repeat scan reported an IUFD at 36 weeks. Induction of labor was then started with oral misoprostol 25mcg two hourly for a total of eight doses; however,

unsuccessfully and the patient was referred to the Kenyatta National Hospital. Her medical history and antenatal profile were unremarkable.

On examination, she was in good condition. Her blood pressure was 124/97mmHg with a tachycardia of 116 beats per minute (BPM). An abdominal examination revealed a term fundal height, fetus in a longitudinal lie, cephalic presentation. No fetal heart rate was recorded, and there was no tenderness or guarding sign. The cervix was dilated at 3 cm, short, anterior, membranes were not felt, and there was no vaginal bleeding. A decision was made to resume labor induction with vaginal dinoprost 3mg eight-hourly, three doses, and analgesics as part of the induction process. After the first dose of dinoprost, she complained of abdominal pain, and an abdominal examination elicited marked tenderness and guarding signs. No contractions were palpated. A repeat transabdominal obstetric ultrasound scan found no uterine rupture or placenta abruption and concluded an IUFD at 36 weeks and 1 day with a postero-fundal placenta. After 24 hours of rest, the induction was resumed with the same regimen. There was no change after the third dose, and a failed induction was determined. She was scheduled for an emergency cesarean section.

Intraoperatively, an abdominal pregnancy was found with a macerated male fetus of 2.550kg. The membranes were already ruptured; the placenta was adherent to the small intestines. The umbilical cord was ligated and cut, and the placenta was left in situ. There was no hematoma. The fallopian tubes and ovaries were grossly normal, and the uterus was bulky. Hemostasis was achieved. The abdomen was closed in layers. She was put on antibiotics and analgesics. Her immediate postoperative features were unremarkable and conservative management without methotrexate was followed. On the fourth postoperative day, she complained of abdominal pain, diarrhea. An abdominopelvic ultrasound scan showed the retained placenta and intraperitoneal free fluid, suggestive of an abscess or hemorrhage. Her vital signs being normal, she was managed conservatively with intravenous fluids and antibiotics. Stool microscopy and blood culture were negative for growth. Her beta-human chorionic gonadotropin (B-hCG) levels were negative at 0.861 mIU/mL. After a marked improvement in conservative management, she was discharged 17 days postoperatively. She was in a stable condition after three weeks and six weeks while attending the postnatal clinic. On the sixth week, a follow-up ultrasound scan did not visualize the placenta, and the quantitative B-hCG was negative. At three and six months, ultrasound

scans did not demonstrate the placental tissue, and the B-hCG levels were negative.

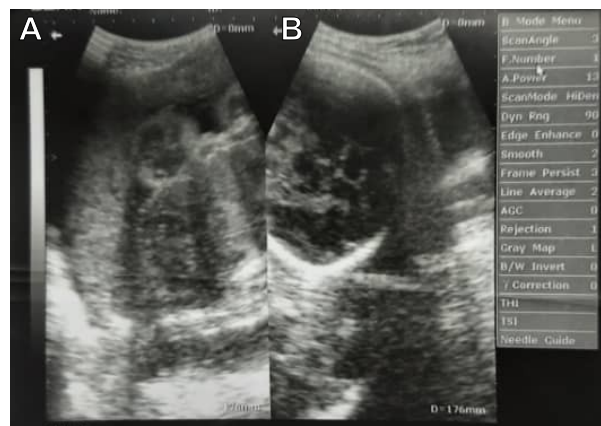


Figure 1: Ultrasound scan before fetal demise: **A:** the placenta appears to be at the fundus with the membranes intact. **B:** the fetal head is cephalic and appears to be in direct contact with the urinary bladder suggesting an absence of the uterine wall between the latter and the fetus.

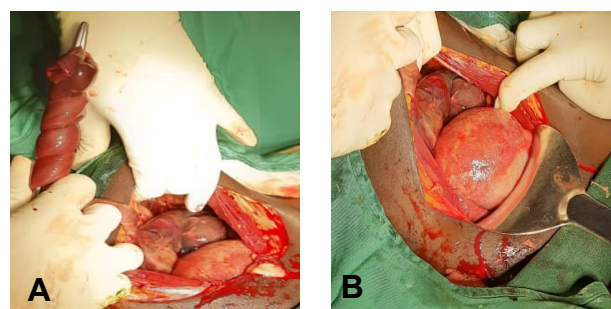


Figure 2: Intraoperative findings of a bulky empty uterus after extracting the fetus. The placenta can be seen above the uterus. **A:** Before umbilical cord-cutting. **B:** After umbilical cord-cutting.



Figure 3: Postoperative ultrasound scans show a bulky uterus with intraperitoneal free fluid.

Discussion

Preoperative diagnosis of abdominal pregnancy based solely on the clinical history and physical examination may be insufficient (5). In most cases, the diagnosis is usually made by a first-trimester obstetric ultrasound which was not done in this case. An abdominal or pelvic mass identifiable as the uterus separate from the fetus, failure to see a uterine wall between the fetus and urinary bladder, and recognition of a close approximation of the fetus to the maternal abdominal wall are diagnostic for an advanced abdominal pregnancy by ultrasound. The localization of the placenta outside the uterine cavity or the classic detection of an empty uterine cavity might be observed and are also diagnostic (6). Imaging studies in the presented case did not pick up on these clues. Transvaginal ultrasound is superior to trans-abdominal ultrasound in evaluating extra-uterine pregnancy as it offers a better inspection of the adnexa and uterine cavity (4). Abdominal pregnancies are often misdiagnosed from patient history, examination, and ultrasound imaging. This can be attributed to a lack of a high index of suspicion, which is required to make a preoperative diagnosis. Misdiagnoses as an intrauterine pregnancy are common, making managing such cases difficult and potentially affecting treatment outcomes (7).

In case of suspicion of abdominal pregnancy with an ultrasound scan, a magnetic resonance imaging (MRI) scan can be used as a confirmatory diagnosis. An MRI can confirm the diagnosis and delineate the exact anatomical relationships of the fetus, the placenta, and maternal intraabdominal organs and detail vascular and placental organ invasion for preoperative planning (8). However, in low-resource settings, MRI is not easily accessible, and the readily available diagnostic tool is an ultrasound scan which findings mainly depend on the quality of the ultrasound machine and the sonographer's experience, as in this case.

Conclusion

Undiagnosed advanced abdominal pregnancies are common in low-resource settings, where antenatal care visits are not adhered to. Sensitization on antenatal care and ultrasound and MRI scans, when accessible, is critical in the diagnosis of late-stage abdominal pregnancy.

Consent for publication

Informed consent for publication was obtained from the patient.

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Declarations

Conflict of interests

The authors declare no conflicts of interest.

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