

Advanced Abdominal Pregnancy in a Diabetic Multipara- is Delivery of the Placenta Always a Problem? A Case Report

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ABSTRACT

Introduction: *Abdominal pregnancy is a comparatively rare type of ectopic gestation with a high fetal and maternal morbidity and mortality. Although this entity had been well documented, it still remains a serious dilemma for most obstetricians in practice because of the difficulties in early diagnosis and proper management. The occurrence in a diabetic woman could make management even more complex.*

Objective: *This is to report a case of advanced abdominal pregnancy occurring in a diabetic multipara.*

Method: *A case report of abdominal pregnancy in a diabetic multipara who was referred to the Nnamdi Azikiwe University Teaching Hospital, Nnewi and relevant review of literature.*

Result: *Following a laparotomy, the baby was delivered, and placenta completely removed.*

Conclusion: *The delivery of the placenta following an abdominal pregnancy may not pose a problem in some patients. Appropriate pre-operative diagnosis and timed intervention is recommended.*

INTRODUCTION

Abdominal pregnancy is a comparatively rare type of ectopic gestation with a high fetal and maternal morbidity and mortality¹. It is defined as primary or secondary implantation of embryo in the peritoneal cavity, exclusive of tubal, ovarian or intraligamentary pregnancy². The incidence of abdominal pregnancy is varied in some studies. In one study, Bonfante et al³ reported the incidence of one in 3,372 to 10,200 deliveries, accounting for 4.0% of ectopic pregnancies. In Ibadan Nigeria, Ayinde et al⁴ reported an incidence of one in 650 deliveries and it accounted for 4.3% of ectopic pregnancies.

The diagnosis of abdominal pregnancy requires a high index of suspicion. This is because the clinical history, physical examination, laboratory investigations and ultrasonography are often non specific. Apart from this,

the management remains controversial especially in advanced cases. The controversy could arise due to the choice between immediate laparotomy and conservative management as well as removal of the placenta and leaving it in situ^{2,5,6}.

CASE REPORT: Mrs EH was a 30 year-old Gravida 5 para 4 with 2 living children. She was referred from a private hospital, where she had her antenatal care, with an ultrasound diagnosis of fetal demise and suspected abdominal pregnancy at a gestational age of 34 weeks. She had presented to the referring hospital two days previously with three weeks history of absent fetal movement and lower abdominal pain of 18 hours duration. The pain was biting in nature and increased in intensity. There were no histories of trauma to the abdomen, vaginal bleeding or drainage of liquor. She was a known diabetic patient diagnosed six years earlier and had been on oral hypoglycemic agents outside pregnancy. The index pregnancy was spontaneously conceived and she booked at a private hospital at a gestational age of 11 weeks. She had polyuria, polydypsia at booking with associated elevated blood sugar and was commenced on subcutaneous insulin. She was however not compliant with her diabetic management.

She had two previous intra uterine fetal deaths at gestational ages of 37 weeks and 35 weeks in her first and second pregnancies respectively. The fourth was delivered with cleft palate/lip that was repaired at the age of 2 years.

Physical examination showed a woman in moderate painful distress. She weighed 102 kg and had a blood pressure of 110/70 mmHg and a pulse rate of 82 beats per minute. She was afebrile, not pale, anicteric and had bilateral pitting pedal oedema. The respiratory and cardiovascular systems were normal.

An abdominal mass presumed to be the uterine fundus was palpated at 33 cm above the symphysis pubis. The presentation of the fetus could not be identified. The foetal heart tone was absent. Digital vaginal examination revealed a closed cervical os, posterior and uneffaced. A repeat ultrasound examination revealed a non viable fetus lying obliquely outside the uterine cavity with a positive Spalding sign. The fetal head was on the mother's left upper quadrant. The placenta was large and globular with multiple fluid-filled spaces in the placenta. A diagnosis of abdominal pregnancy and fetal death was made. She was counseled on the findings and consent was obtained for emergency laparotomy. The random blood sugar was normal and the packed cell volume was 33%. She was maintained on insulin

infusion using 10 % dextrose water in one arm and normal saline in the other arm. An indwelling urethral catheter was also passed.

A laparotomy was done and peritoneal access gained via a midline sub-umbilical incision. The intra operative findings included a macerated male fetus that weighed 1.9 kg and lying in the peritoneal cavity with the fetal membranes intact. The fetal head was in contact with the maternal spleen, stomach and transverse colon. The placenta was implanted on the uterine fundus centrally. There was no demonstrable rent in the uterus. The fetus was removed without difficulty. The placenta was friable, enveloped in membranes and was coated with meconium. Also, the extraction of the placenta was not difficult as it was not strongly adherent to the uterus. The uterus was slightly enlarged and fallopian tubes and ovaries were normal. The estimated blood loss was 200 mls and no blood was transfused.

The mother was continued on insulin infusion in 10 % dextrose water for 24 hours. She also received intravenous augmentin 1.2 g 12 hourly and metronidazole 500 mg 8 hourly for 48 hours. Then she was placed on intravenous fluid, 5% dextrose water 1000 ml, alternated with normal saline, 1000 ml, 8 hourly for 24 hours. She also received intramuscular pentazocine 30 mg 6 hourly for 24 hours. An indwelling urethra catheter was removed 12 hours after surgery. These were followed by tabs augmenting 625 mg 12 hourly, tabs metronidazole 400 mg 8 hourly and tabs paracetamol one gram 8 hourly for 5 days. She was discharged home on post-operative day 8 and was in excellent health when last seen for routine follow up 6 weeks later. The fasting blood sugar at 6 weeks postnatal visit was slightly elevated at 6.1 mmol/L.

DISCUSSION

Abdominal pregnancy is a rare obstetric complication with high maternal and even higher perinatal mortality^{1,2}. It could be primary or secondary to implantation of primary tubal pregnancy in the peritoneal cavity.

Though abdominal pregnancy is relatively rare, advanced abdominal pregnancy can have dramatic and catastrophic consequences for the fetus and the mother. It could be difficult to diagnose pre-operatively. Advanced abdominal pregnancy often presents special challenges to the clinicians working in remote areas with limited resources for diagnosis and management.

Diagnosis of abdominal pregnancy is difficult and often missed as was seen in the case discussed. Symptoms

and signs such as abdominal pain, gastrointestinal symptoms, painful fetal movements, abnormal fetal presentation, uneffaced and displaced cervix, vaginal bleeding, inability to stimulate uterine contraction with oxytocin, features of intestinal obstruction, are considered suggestive evidences of an abdominal pregnancy³. In our case the patient presented with abdominal pain and absent fetal movement.

Thus, to diagnose abdominal pregnancy on ultrasound, one should try to delineate the uterus as a separate structure from the fetus and placenta. Sometimes, the diagnosis is missed, even in the hands of experienced sonologist, but MRI and CT scan are both excellent diagnostic tools to diagnose abdominal pregnancy^{7,8}. In the case presented, it was possible to demonstrate with ultrasound scan, an intra-abdominal pregnancy with the placental implantation outside a non pregnant uterus.

Because perinatal death may result from either prematurity or prolonged gestation in a compromised environment, the decision about when to intervene in the case of a live baby should be made and balanced in such a way that allowing the pregnancy to continue does not put the mother at risk of torrential intra peritoneal haemorrhage⁹. Once the fetus has reached a viable age, there is little reason to delay delivery. However, this is not an issue in this case as the fetal demise had already occurred before presentation and so a laparotomy was embarked on. Therefore, regardless of timing, the mother's own safety will be best assured by careful monitoring, foresight and pre-operative preparation.

Additionally, a principal controversy concerning management of advanced abdominal pregnancy is whether or not to remove the placenta. Because the abnormally implanted placental blood supply is diffuse and often unidentifiable, attempts to remove it can incite catastrophic haemorrhage. If vascular attachment involves major vessels or vital structures, placenta should be left undisturbed⁹. Fortunately, this was not a problem in Mrs EH, as the placenta was not attached to the mesenteries.

Nevertheless, measures taken to control haemorrhage during surgery could compromise the blood supply of other organs. A placenta left in situ might resorb spontaneously but if it does not, the risk of infection, necrosis, and the need for a second surgery is considerable. Most authors agree that the placenta should be removed provided its blood supply is identified and can be ligated without damaging other organs¹⁰. If the blood supply cannot be identified and

safely ligated, the placenta should be left in place and the patient followed for possible complications¹⁰.

The use of methotrexate to shrink a placenta left in situ has been largely discredited^{7,10}. Post operative methotrexate has been administered by some for placental absorption but it leads to accumulation of necrotic tissue due to accelerated placental absorption and increases morbidity⁷.

Delaying removal of a dead fetus to give time for the placenta's blood supply to shrink remains controversial⁷. This may have happened in this present case report, as the history of absence of fetal movement had lasted for more than 3 weeks. Ultrasound examination, still insufficiently accessible in many remote areas, is a valuable tool and should be part of the minimal standard of care for every pregnant woman.

CONCLUSION

We reported one case of advanced abdominal pregnancy in a known diabetic multiparous lady with accurate preoperative diagnosis followed by immediate surgical intervention and total removal of the placental tissue. The important concepts of management with this uncommon but ominous condition are discussed, including the clinical features, diagnostic difficulties, appropriate surgery and management of the placenta. The delivery of the placenta was shown not to be a problem.

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