

ABDOMINAL ECTOPIC GESTATION IN THE SECOND TRIMESTER AT A DISTRICT HOSPITAL: A RARE CASE

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Abstract

Introduction: Abdominal ectopic pregnancies are uncommon forms of ectopic pregnancies. They might be unnoticed until late in pregnancy and are associated with an increased risk of maternal complications and mortality. This is a case report of an abdominal ectopic gestation diagnosed at the first visit to a district hospital in Ghana and how it was managed in a low-resource setting.

Case Presentation: A 28-year-old gravida 4 parity 3, presented with 4 months history of amenorrhoea associated with recurrent bleeding per vaginum. Ultrasound showed a slightly bulky uterus with very scanty echogenic material within the endometrial cavity. There was however a right adnexal gestational sac with a live foetus at 19 weeks + 4 days and no free fluid was

seen in the pouch of Douglas. The patient was counselled and prepared for an emergency exploratory laparotomy and intraoperative findings showed normal size uterus of about 8 weeks in size with an unruptured right adnexae gestation. The gestational sac was in the region of the right ovary which could not be visualised and attached to the uterus via the ovarian ligament with a normal-looking right tube. Post-operative recovery was uneventful and she was discharged three days later.

Conclusion: Abdominal ectopic gestation can pose a diagnostic challenge, particularly in low-resource settings. There is a need for clinicians to have a high index of suspicion and provide timely surgical intervention necessary to reduce complications and mortality associated with the condition.

Key words: *Abdominal ectopic gestation, Laparotomy, District Hospital, Ghana.*

Introduction

Abdominal ectopic pregnancy is a rare disorder caused by the embryo being implanted in the peritoneal cavity outside of the uterine cavity, as well as the fallopian tubes and broad ligament.¹ It has been reported to account for 1% of all ectopic pregnancies.² According to the literature, the incidence of abdominal pregnancy varies between 1 in 10,000 and 1 in 30,000 pregnancies.³ In Ghana, a retrospective review of cases in Kumasi showed that abdominal ectopic pregnancy accounted for 0.46% of all ectopic pregnancies.⁴ In Nigeria, an incidence of 0.34 per 1,000 deliveries has been reported in a retrospective study.⁵

Abdominal pregnancies might be unnoticed until late in the pregnancy and it is linked to an increased risk of maternal complications and mortality.⁶ One factor contributing to the high maternal mortality rate could be the prevalent misdiagnosis of abdominal ectopic pregnancies.⁷ Diagnosis and management can be challenging, particularly in low-resource settings.³ This case report highlights the subtle presentation of a case of

abdominal ectopic gestation in the second trimester and its management in a District health facility in Ghana.

Case Report

On the 15th of February, 2021 at 11:20 am a 28-year-old Gravida 4 Para 3, presented to a district hospital in Ghana with 4 months history of amenorrhoea associated with recurrent scanty bleeding per vaginum. She was asymptomatic of anaemia and could not tell her last menstrual period. There was no current obstetrics history since she had not presented to any facility for antenatal care. From her past obstetrics history, all 3 pregnancies were normal and delivered vaginally at term. There were no known Chronic medical conditions and no previous surgeries.

On Examination she was moderately pale, afebrile, anicteric and hydration was satisfactory. Her cardiorespiratory system was stable with a blood pressure of 100/60mmHg. Her abdomen moved with respiration, it was soft with tenderness in the lower region and had a pelvic mass of 20 weeks in size. There was no hepatosplenomegaly. She was conscious and alert.

A urine pregnancy test done was positive and a full blood count showed a haemoglobin of 10.6g/dl. Abdominopelvic ultrasonography showed a slightly bulky uterus with very scanty echogenic material within the endometrial cavity. There was a right adnexal

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gestational sac with a live foetus at 19weeks + 4days. The left adnexa was unremarkable. There was no free fluid seen in the pouch of Douglas. There was also no free fluid seen in the hepatorenal space. Figure 1 shows an image from the ultrasound scan.



Figure 1 - Right adnexal gestational sac with a live foetus

An impression of an unruptured extrauterine ectopic pregnancy was made with a differential diagnosis of 1) Abdominal Ectopic pregnancy 2) Right ovarian Ectopic pregnancy. The patient was counselled and prepared for an emergency Exploratory Laparotomy.

Intra-operative findings in the theatre were: Normal size uterus of about 8 weeks size with an unruptured right adnexae gestation (a well-formed fetus at about 20 weeks, weight of 250g, attached to ovary and omentum). The gestational sac was in the region of the right ovary which couldn't be visualized, with a normal-looking right tube. There were few adhesions of the omentum and small bowel on the surface of the gestational sac. There were normal-looking left ovary and fallopian tube. There was no haemoperitoneum and the estimated blood loss was about 300 millilitres.

Figures 2 and 3 are images from intraoperative findings.

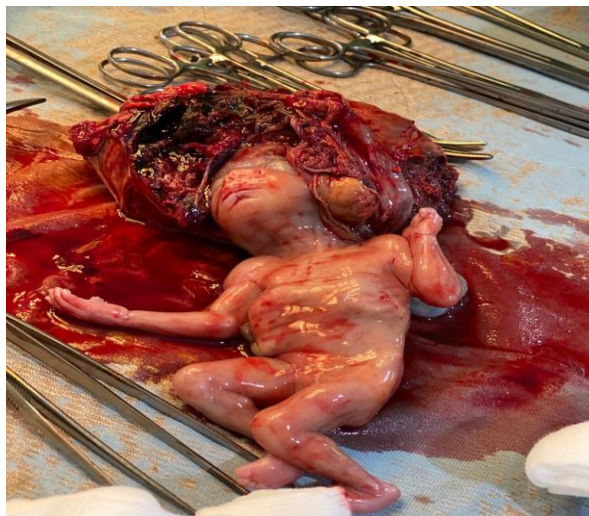


Figure 2 – Fetus



Figure 3 – Gestational sac and Uterus

The surgical procedure that was carried out was a Laparotomy with right Oophorectomy and adhesiolysis. Her post-operative condition was satisfactory and her recovery was uneventful. The extrauterine gestation was taken for histopathological studies which showed a right ovary and attached to it was a gestational sac and umbilical cord. Omentum was inflamed. Features were of an ectopic gestation attached to but not within the right ovary. The patient was discharged on the third postoperative day and has since been well.

Discussion

Abdominal ectopic pregnancy remains a rare type of ectopic pregnancy that has significant morbidity and mortality for both the mother and the fetus.³ The implantation of the embryo in abdominal ectopic pregnancy is either primary or secondary to an intraperitoneal abortion of tubal pregnancy.² The omentum, pelvic sidewall, the Douglas pouch, spleen, colon, liver, big pelvic arteries, diaphragm, and uterine serosa are among the implantation sites.⁸

The main risk factors that have been identified to be associated with abdominal ectopic pregnancy include tubal damage or history of tubal pregnancy, pelvic inflammatory disease, endometriosis, assisted reproduction techniques, uterine or tubal surgeries, dilatation and curettage, genital malformations, and multiparity.^{2,9,10} The patient in this case report from her past medical history had none of these risk factors identified in the literature except for being a multiparous woman.

The presentation of abdominal ectopic gestation is usually non-specific. Clinical presentation can range from abdominal pain with intestinal transit disorder to abdominal pain during active movements of the fetus.¹¹

Other signs that can be observed at presentation are spreading of the abdomen due to an irregular presentation and the palpation of the fetal parts under the maternal abdominal wall, especially in advanced abdominal pregnancy.¹¹ Our patient in this case report presented with recurrent scanty bleeding per vaginum with tenderness in the lower region.

Sonography remains an important diagnostic tool for the evaluation of ectopic pregnancy. An early obstetric ultrasound is frequently used to make the diagnosis of abdominal ectopic pregnancy. Diagnostic criteria by ultrasound may include: the demonstration of a fetus outside the uterus in a gestational sac, or the depiction of an abdominal or pelvic mass identifiable as the uterus distinct from the fetus; failure to detect a uterine wall between the fetus and the bladder; the fetus's proximity to the maternal abdominal wall; the placenta's location outside the uterine cavity and an empty uterine cavity.⁹ The management of abdominal ectopic pregnancy is determined by the stage at which it is discovered. Sapuri et al proposed the following criteria under which conservative management is feasible if the diagnosis is made before 28 weeks gestation:¹²

1. Absence of a major congenital malformation.
2. A live fetus.
3. Continuous hospitalization in a well-equipped and well-staffed maternity unit with immediate blood transfusion facilities available.
4. Careful monitoring of maternal and fetal wellbeing.
5. Placental implantation in the lower abdomen away from the liver and spleen.

In a low-resource setting of a district Hospital, all these criteria cannot be met and therefore conservative management will be a challenge. Generally, while some authors believe that expectant management and waiting until fetal lung maturity is a viable option, others believe that there is a substantial danger of a life-threatening haemorrhage.^{13,14} Hence the optimal treatment of abdominal ectopic pregnancy is unknown and there is no standard treatment algorithm.^{9,10} In this case, immediate laparotomy was offered to the patient because she was exhibiting maternal complications of pregnancy which manifested as recurrent vaginal bleeding and tenderness of the lower abdomen.

Conclusion

Abdominal ectopic gestation is an uncommon condition that can pose a diagnostic challenge, particularly in low-resource settings. There is the need to have a high index of suspicion even in patients who

have no known risk factors. Its presentation can delay compared to tubal ectopic pregnancies. Timely surgical intervention is imperative to reduce complications and mortality associated with the condition.

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