

An Atypical Case of Second Trimester Ectopic Pregnancy: A Case Report

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ARTICLE INFO	ABSTRACT
Article type: Case report	Background & aim: About 1 in 100 pregnancies are ectopic pregnancies (EPs), which most commonly occur in the fallopian tube. Most EPs rupture during the first trimester. An objective assessment is required to ensure the diagnosis is not missed or delayed, especially in atypical cases and in resource-limited settings. A strong suspicion of EP should warrant careful ultrasound examination, as some cases are atypical. Case report: We present an unruptured EP at 20 weeks of gestation in a 21-year-old primigravid woman presenting with right lower quadrant pain, managed with a total salpingectomy. The diagnosis was challenging. Despite having two ultrasound reports of an intrauterine pregnancy, the diagnosis of an EP was likely amidst right lower quadrant pain, no palpable uterus, an ultrasound report of probable EP, and failed cervical ripening. Intra-operative findings confirmed a right ampullary pregnancy with the contralateral tube absent. She was counseled on future infertility resulting from the total salpingectomy and provided education on alternatives, including in vitro fertilization. Conclusion: Early diagnosis requires careful clinical judgement, especially when the presentation is atypical, and can avert complications and salpingectomy. Patients should be educated on the role of first-trimester ultrasound scans in determining the location of pregnancy.
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Introduction

Ectopic pregnancy (EP) is a pregnancy implanted outside of the normal uterine cavity and occurs in approximately 1 in 100 pregnancies. Most EPs are implanted in the fallopian tubes. A few resolve spontaneously. Most ruptures occur in the first trimester. Few remain unruptured beyond the first trimester

(1,2). EPs can sometimes present with breast tenderness, gastrointestinal or urinary symptoms, dizziness or syncope, peritoneal signs, shoulder tip pain, or even rectal pressure. (3). Early and careful clinical and imaging assessment and measurement of serum β -hCG are therefore important for early diagnosis and

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to prevent maternal morbidity and mortality (4).

Early diagnosis is difficult in resource-limited settings. The diagnosis is uncertain sometimes, requiring a repeat assessment before intervention (5). Minimally invasive surgery and medical management with methotrexate are usually successful in cases detected early (3). We report an atypical unruptured EP in the second trimester at Malantouen District Hospital, Cameroon.

Case presentation

A 21-year-old primigravid woman presented at 20 weeks of gestation with cramping and constant right lower quadrant pain, no report of vaginal bleeding, abdominal distention, dizziness, or palpitations. She had two transabdominal pelvic ultrasound reports done on maternal request. The first pelvic ultrasound scan suggested an intrauterine fetal death (IUFD) in transverse lie with prolonged retention, with the parameters as seen in the timeline below. The second ultrasound scan report was consistent with the first.

She had not received antenatal care (ANC). She reported failed attempts to conceive despite never using contraception. Family history was unremarkable. She was 1.45m tall, with a weight of 56kg and a BMI of 26.3kg/m² with no obvious morphologic abnormality. She was hemodynamically stable with no foetal heartbeats. The uterus was not palpable. No bimanual examination was conducted. Laboratory investigations included blood group: A, Rhesus positive; malaria, HIV, and COVID-19 rapid diagnostic tests; and Chlamydia serology: negative. Hemoglobin level was 10.5g/dL. Complete blood count and renal function tests were not performed.

The previous ultrasound diagnosis of a missed abortion prompted admission and initiation of cervical ripening as follows: Mifepristone 200mcg PO once, followed 24 hours later by Misoprostol PV 400mg. Slight abdominal pain was reported 24 hours later with no vaginal bleeding. The protocol was unsuccessful after 48 hours, necessitating daily increments of the dose of Misoprostol by 200 mcg to a maximum of 800 mcg, which also failed. A Foley balloon catheter filled with 20cc of normal saline was attempted, but was

accompanied by pain and resistance. The possibility of a missed EP was considered, and a third ultrasound scan was requested, which revealed a non-pregnant uterus and a right adnexal mass (Figure 1) containing a non-viable fetus (Figure 2).



Figure 1. Ultrasound scan showing a non-pregnant uterus (black arrow) and a right adnexal mass (red arrow)



Figure 2. Ultrasound scan showing a fetus in the right adnexal mass (red arrow) and the uterus (black arrow)

A comparison of the ultrasound scan findings is shown in the timeline below. A diagnosis of a probable EP was made; however, the patient was informed of the need for a second opinion, hence a fourth ultrasound.

Timeline: Comparison of the Ultrasound Scan Reports

1. Date: 20/11/2022, report: IUFD at 17 weeks, transverse lie, Biparietal Diameter (BPD): 37mm; Abdominal Circumference (AC): 128mm; Femoral Length (FL): 21mm; Estimated Foetal Weight (EFW): 18g, placenta fundal (maternal request).

2. Date 21/11/2022, report: IUFD at 16 weeks 4 days; BPD 3mm; AC: 11mm; FL: 20mm; EFW 124mm, Placenta fundal (maternal request).

3. Date 25/11/2022, report: right adnexal mass containing non-viable foetus, BPD: 3mm; AC: 112mm; FL: 20mm; EFW: 124g (MD request)

4. Date 26/11/2022, report: IUFD at 17 weeks 2 days, transverse lie, BPD: 34mm; AC: 118mm; FL: 21mm; EFW: 118g, placenta fundal (OB/GYN request)

Following conflicting ultrasound reports and failed cervical ripening, the suspicion of a probable EP was retained, and an exploratory laparotomy was performed. The intra-operative findings were a right ampullary pregnancy extending up to the broad ligament (Figure 3).

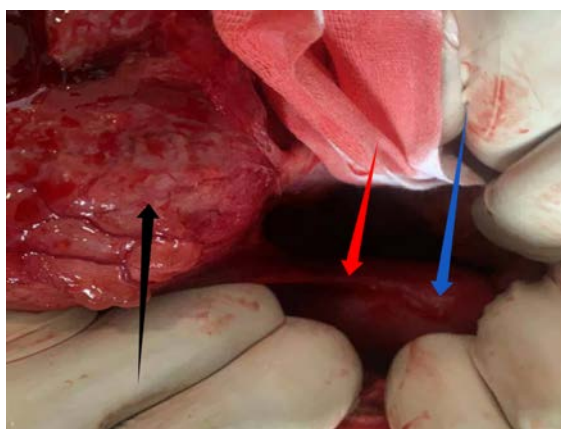


Figure 3. Image showing the uterus (blue arrow), right fallopian tube (red arrow) and the right adnexal mass (black arrow)

The contralateral fallopian tube was absent. A right total salpingectomy was then performed. Examination showed a fetus weighing 178g, a 10.2cm long cord, and a poorly developed placenta (Figure 4).

The post-operative recovery was uneventful, and the patient was discharged seven days later.



Figure 4. Image showing a formed fetus extracted from the adnexal mass

Discussion

We present an unusual, unruptured ampullary pregnancy at 20 weeks of gestation.

EPs are missed or diagnosed late in some resource-limited settings in Africa that lack good-resolution ultrasonography and experienced radiologists, especially if symptoms are atypical or late presentation for antenatal care reduces the chance of detecting EPs through first-trimester ultrasound, increasing morbidity and mortality (1,6,7).

Our patient presented at 20 weeks with non-specific abdominal pain and two ultrasound scans suggestive of IUFD. Other cases of second-trimester unruptured ampullary EPs have been reported (2,3). Sizes above 3.5cm are a contraindication to the use of methotrexate (8).

A study carried out in Yaoundé found a mortality rate of 1.3% from EPs, most being diagnosed late after onset of tubal rupture, hemodynamic instability, and the majority requiring salpingectomy (9). In this case, the diagnosis of an EP was retained because of the absence of a palpable uterus, presence of right lower quadrant pain, an ultrasound report of probable EP, and failure of cervical ripening. Intra-operative findings confirmed the diagnosis of a right ampullary pregnancy and an absence of the contralateral tube. Despite the patient's desire to preserve fertility, extensive tubal involvement and fibrosis made a salpingostomy impossible. She was counseled on future infertility resulting from the total salpingectomy

and provided education on alternatives, including in vitro fertilization.

She expressed satisfaction with her management but was distressed about the likelihood of future infertility and the high cost of in vitro fertilization.

Early ANC, careful clinical evaluation, monitoring with beta hCG titer, and an early first-trimester ultrasound are essential to early diagnose EPs, especially in resource-limited settings where appropriate equipment, experienced radiologists, and in vitro fertilization are neither affordable nor easily accessible (10). Educating women of childbearing age about the role of early antenatal care in preventing adverse outcomes is also crucial.

Conclusion

Late presentation with EPs reduces the chance of successful medical management and increases the risk of complications and future infertility, and consideration of expensive, sometimes cost-prohibitive alternatives for conception, like in vitro fertilization.

Declarations

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Conflicts of interest

The authors declared no conflicts of interest.

Ethical considerations

The patient's informed consent was obtained for the publication of this case.

Use of Artificial Intelligence (AI)

AI was not used, and the authors are fully responsible for the content of this manuscript.

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Authors' contribution

EEN and EFN patient care/management, manuscript drafting; DNKA and WP patient care and critical revision of manuscript.

All authors critically reviewed the manuscript and approved the final version.

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