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LATE-DIAGNOSED SPONTANEOUS HETEROTOPIC PREGNANCY AT 36 WEEKS' GESTATION: A RARE CASE REPORT

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ABSTRACT

Heterotopic pregnancy is a rare clinical condition characterized by the simultaneous presence of intrauterine and extrauterine gestations. Although commonly associated with assisted reproductive techniques, it may also occur spontaneously, with an estimated incidence of 1 in 30,000 pregnancies. Despite advances in ultrasonographic imaging, diagnosis remains difficult and is often based on the presence of acute abdominal symptoms.

We present the case of a 35-year-old Gravida 3, Para 2 woman with a prior cesarean section who booked for antenatal care at 14 weeks' gestation. An initial ultrasound confirmed a single viable intrauterine pregnancy; however, a repeat scan at 36 weeks and 4 days revealed a right adnexal mass in the context of intrauterine fetal demise (IUFD) dated at approximately 16 weeks, leading to a diagnosis of heterotopic pregnancy.

The patient underwent an elective cesarean section at 38 weeks, resulting in the delivery of a healthy female neonate. The adnexal mass was excised intraoperatively and submitted for histopathological evaluation. Postoperative recovery was uneventful.

This case highlights the diagnostic challenges of heterotopic pregnancy following spontaneous conception, particularly in asymptomatic patients, and is notable for its late detection and successful term delivery. It highlights the need for sustained clinical suspicion in women with prior pelvic surgery and the importance of multidisciplinary management to ensure favorable maternal and fetal outcomes. Early imaging and timely intervention remain critical in optimizing prognosis.

Keywords: Adnexal mass, Caesarean section, Heterotopic pregnancy, Spontaneous conception.

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INTRODUCTION

Heterotopic pregnancy is a rare condition characterized by the simultaneous presence of at least two pregnancies at different implantation sites, with one located within the uterine cavity.[1] Its prevalence ranges from approximately 1 in 30,000 pregnancies in natural conception cycles to around 1 in 100 in cases involving assisted reproductive techniques.[2] Similar to ectopic pregnancy, patients commonly present with abdominal pain and vaginal bleeding alongside a positive pregnancy test; however, the diagnosis of heterotopic pregnancy is considerably more challenging.[3]Despite advancements in high-resolution ultrasound imaging and Doppler techniques, diagnosis often remains reliant on the presence of acute abdominal symptoms.[4] In the first trimester, an unrecognized heterotopic pregnancy can be a significant cause of non-traumatic acute abdomen. We report a unique case of heterotopic pregnancy that was diagnosed incidentally at 36 weeks of gestation during a routine antenatal clinic visit through ultrasound imaging.

METHODS

This is a case report of Mrs. A.F., a 35-year-old Gravida 3, Para 2 woman with two living children and a history of one previous cesarean section, who presented for antenatal care at 14 weeks' gestation. At booking, her blood pressure was 120/80 mmHg, and transabdominal ultrasound confirmed a single viable intrauterine pregnancy consistent with the gestational age.

At 36 weeks and 4 days, a repeat ultrasound scan revealed a single viable intrauterine fetus with normal cardiac activity, as well as a right adnexal mass corresponding to a gestational age of 16 weeks and 4 days. The adnexal mass showed no cardiac activity, collapse of the fetal head, and overlapping of skull bones, suggestive of intrauterine fetal demise (IUFD) of an extrauterine gestation.

A diagnosis of heterotopic pregnancy was made. The patient was admitted and commenced on intramuscular dexamethasone 6 mg every 6 hours for 48 hours to promote fetal lung maturity. Baseline investigations, including a full blood count, were performed with a packed cell volume (PCV) of 35%. Blood was grouped and crossmatched in preparation for surgery. Consultations were sent to the pediatrician, surgeon, and anesthetist. She was subsequently scheduled for an elective cesarean section at 38 weeks' gestation under regional anesthesia.

RESULTS

At 38 weeks' gestation, an elective cesarean section was performed via a midline abdominal incision under regional anesthesia. A live female neonate was delivered with a birth weight of 2.5 kg and satisfactory Apgar scores. Following delivery, total excision of the right adnexal mass was performed, and the specimen was sent for histopathological examination. The abdomen was closed in layers using Vicryl 1 for muscle, Nylon 2 for the rectus sheath, and Vicryl 2/0 for subcutaneous tissue and skin. Estimated intraoperative blood loss was approximately 1 liter; the patient was transfused with 2 pints of O-positive blood. Intravenous antibiotics were initiated postoperatively. The postoperative period was uneventful, and the patient was discharged in stable condition on the fifth postoperative day.

Figure 1: Delivery of the membrane

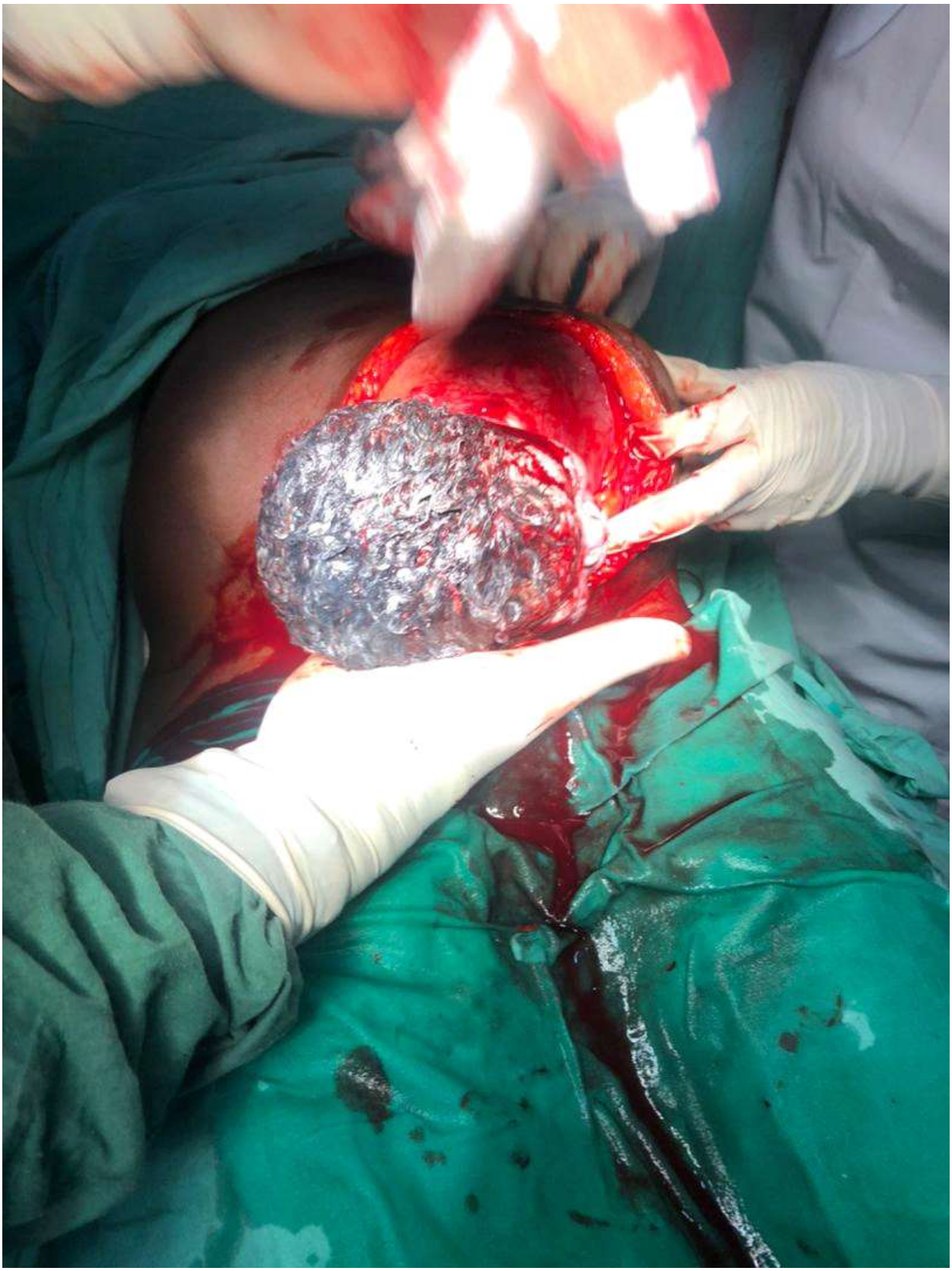


Figure 2: Delivery of the fetal head

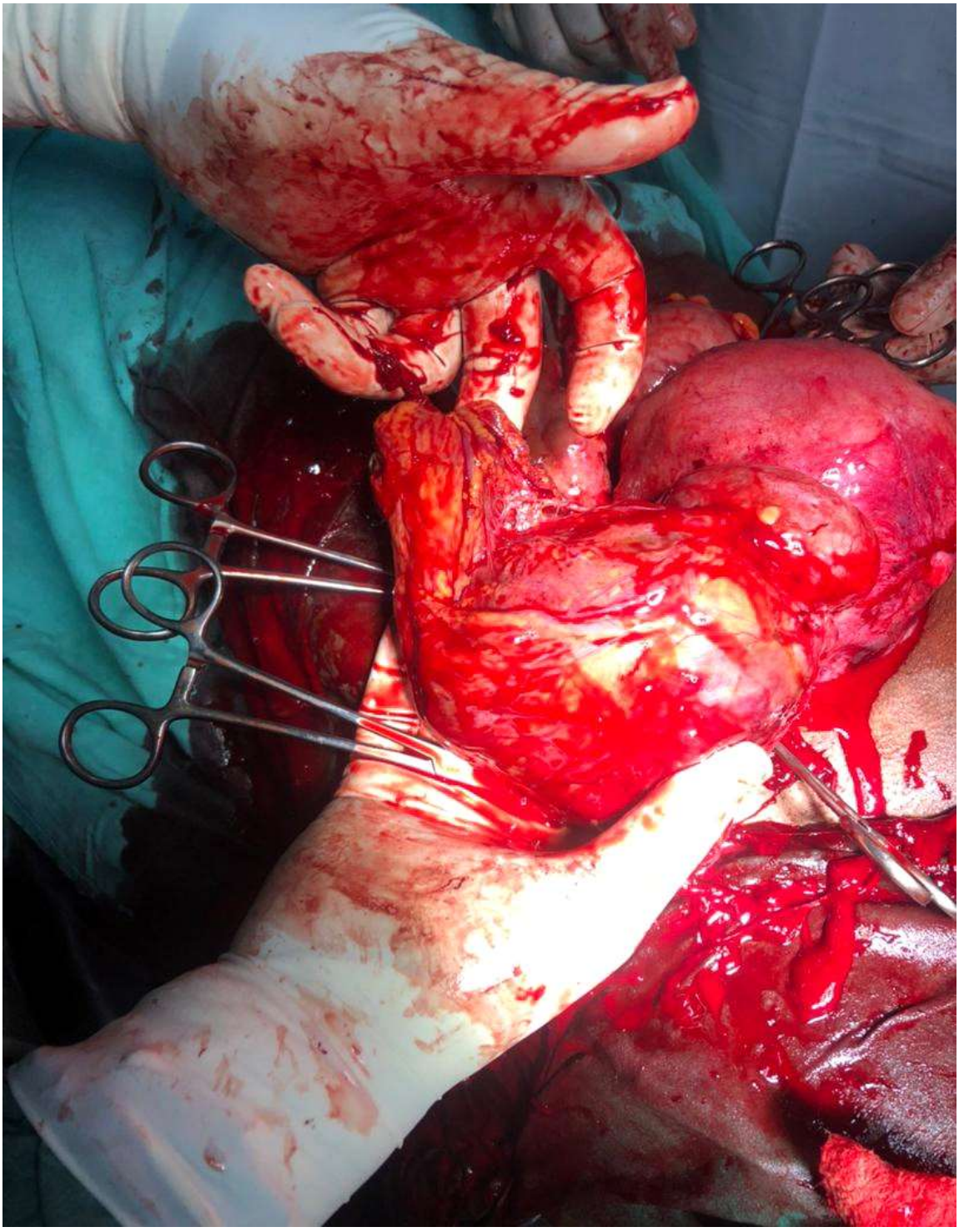


Figure 3: Image showing the ectopic ovarian pregnancy

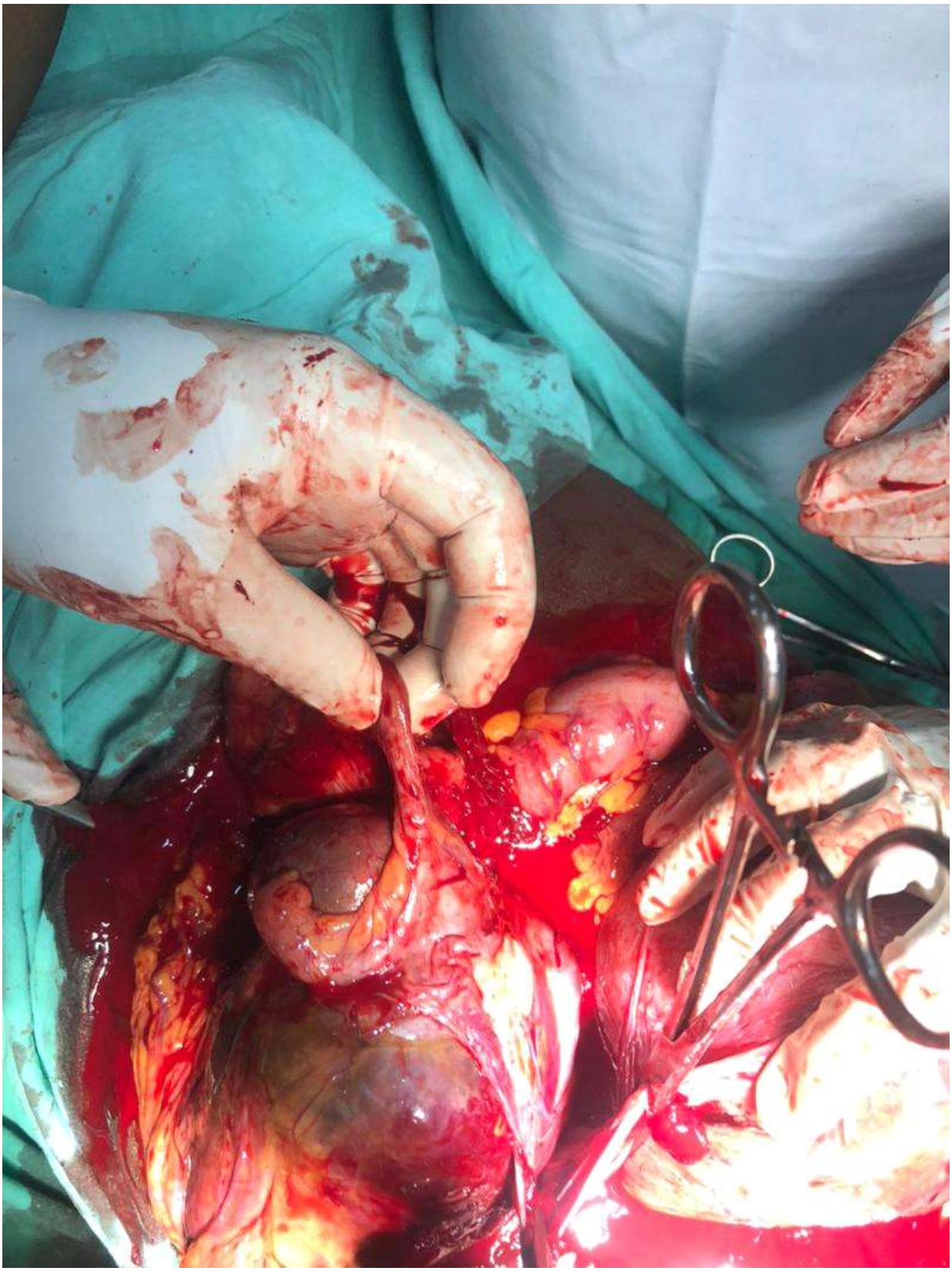


Figure 4: Image showing attachment of the ectopic ovarian pregnancy to the appendix

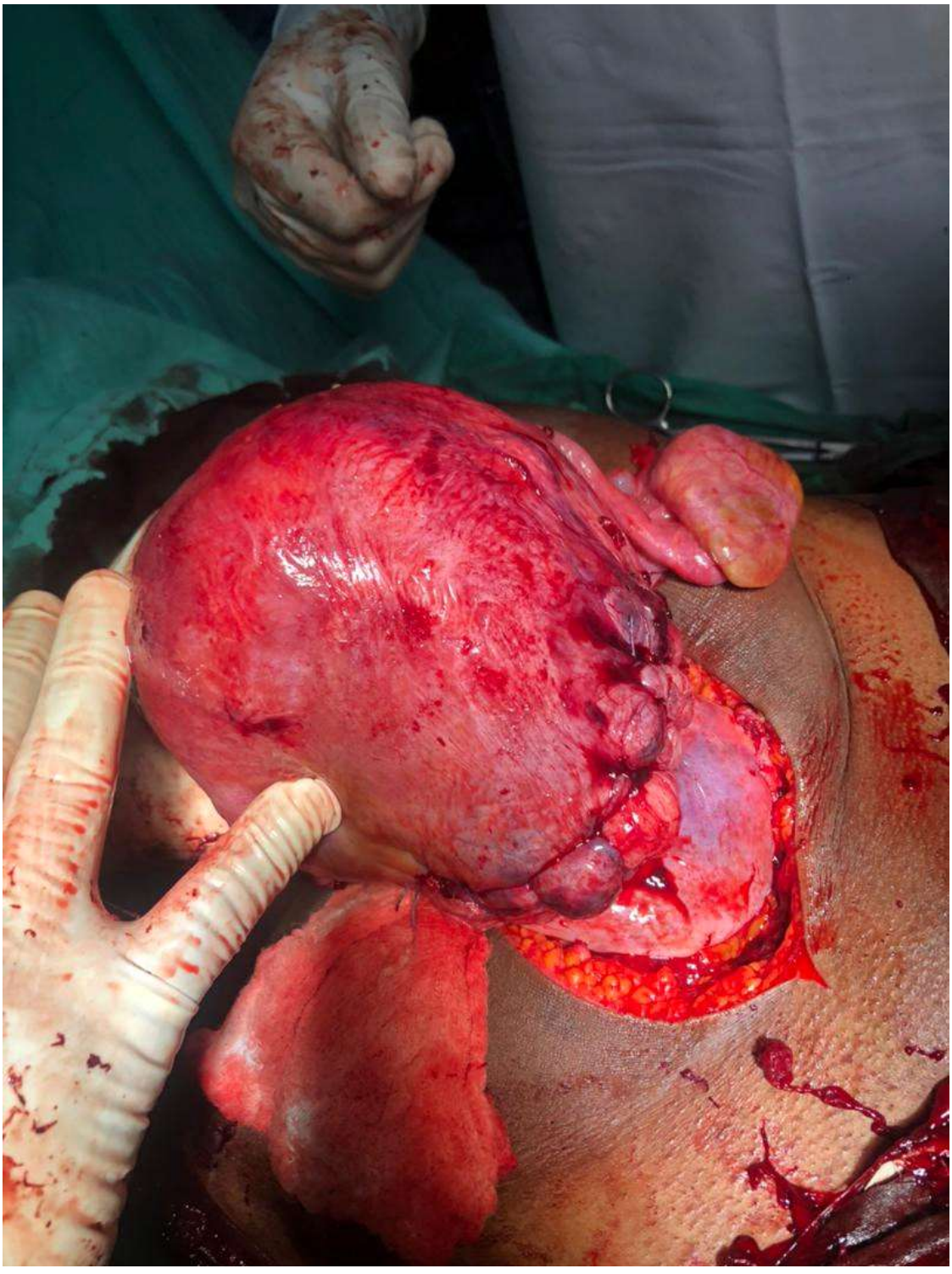
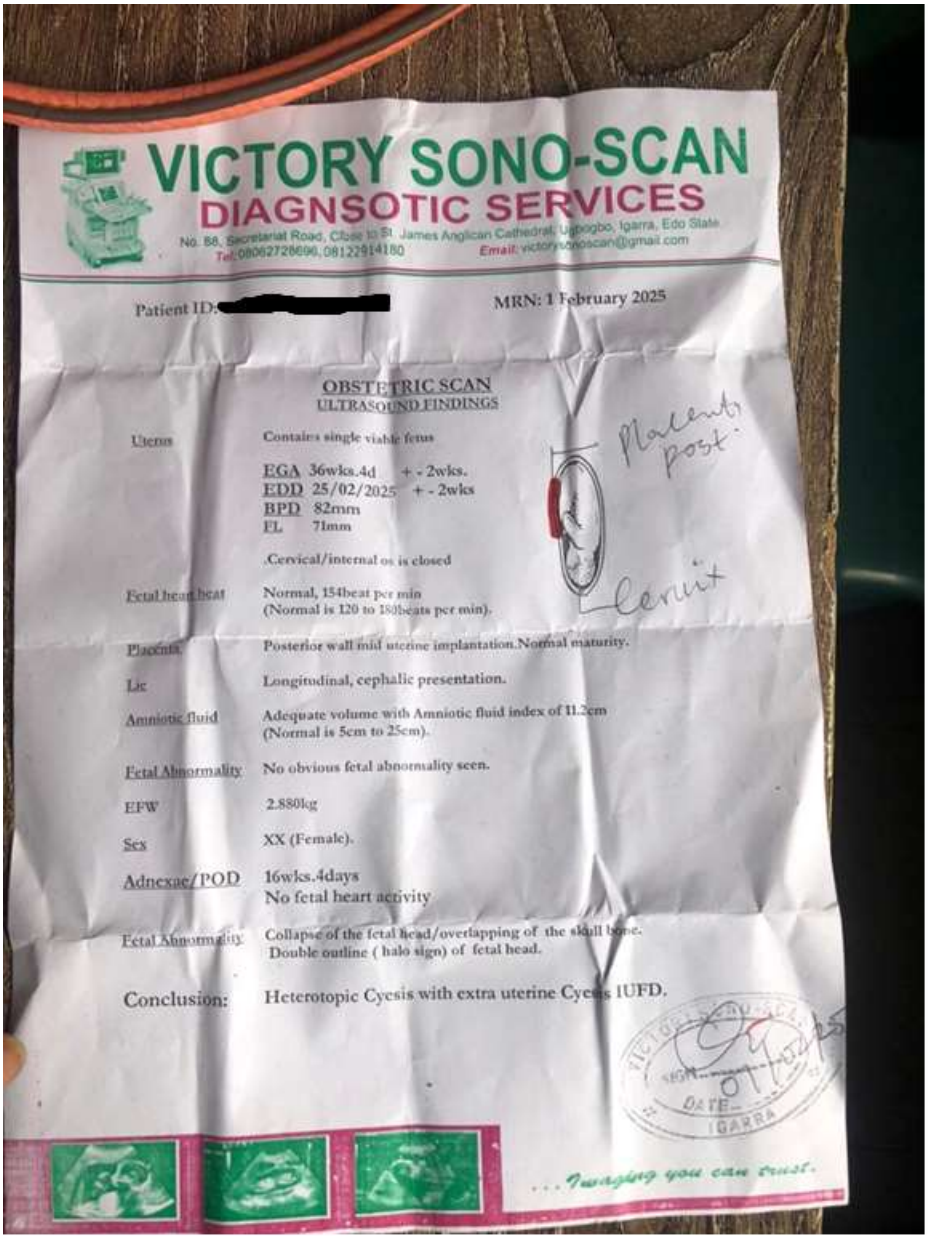


Figure 5: Image showing the repaired uterus



VICTORY SONO-SCAN
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Patient ID: [redacted] MRN: 1 February 2025

OBSTETRIC SCAN
ULTRASOUND FINDINGS

Uterus	Contains single viable fetus EGA 36wks.4d + - 2wks. EDD 25/02/2025 + - 2wks BPD 82mm FL 71mm Cervical/internal os is closed
Fetal heart beat	Normal, 154beat per min (Normal is 120 to 180beats per min).
Placenta	Posterior wall mid uterine implantation. Normal maturity.
Lie	Longitudinal, cephalic presentation.
Amniotic fluid	Adequate volume with Amniotic fluid index of 11.2cm (Normal is 5cm to 25cm).
Fetal Abnormality	No obvious fetal abnormality seen.
EFW	2.880kg
Sex	XX (Female).
Adnexae/POD	16wks.4days No fetal heart activity
Fetal Abnormality	Collapse of the fetal head/overlapping of the skull bone. Double outline (halo sign) of fetal head.
Conclusion:	Heterotopic Cyesis with extra uterine Cyesis IUFD.

Placenta post.

DATE
IGARRA

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Figure 6: Ultrasound scan results of the study case

DISCUSSION

Heterotopic pregnancy (HP), defined as the simultaneous occurrence of intrauterine and extrauterine gestations, remains a rare clinical entity, particularly following spontaneous conception. The incidence after natural conception is estimated at approximately 1 in 30,000 pregnancies.[2,5] However, the increased use of assisted reproductive technologies (ART), such as in vitro fertilization (IVF) and ovulation induction, has significantly raised the incidence rates. Data from the National ART Surveillance System between 2001 and 2011, which analyzed 553,577 pregnancies, identified 485 cases of heterotopic pregnancy, equating to a rate of approximately 0.9 per 1000 pregnancies.[6]

In the present case, the patient conceived spontaneously without the use of ART. Known risk factors for heterotopic pregnancy include ART (especially IVF with fresh, non-donor embryo transfer), a history of ectopic pregnancy, previous pelvic or tubal surgery (such as salpingectomy, salpingostomy, or tubal reconstructive procedures), and pelvic inflammatory disease[7]. Our patient's only notable surgical history was a previous cesarean section, which may have contributed to pelvic adhesions, although cesarean section alone is not a major established risk factor for HP.

In a comparative review covering literature from January 1994 to December 2004, 13 cases of spontaneous heterotopic pregnancies were identified. Notably, approximately 74% of these cases were diagnosed early, between 5 and 8 weeks of gestation, with a rare case diagnosed at 20 weeks.[8] Similarly, another review identified 14 cases of spontaneous HP, with most diagnoses occurring between 6 and 8 weeks. In contrast, our case was diagnosed exceptionally late—at 36 weeks of gestation—making it one of the latest reported spontaneous heterotopic pregnancies to reach term.[1]

Diagnostic challenges in heterotopic pregnancy are considerable. Most cases are identified intraoperatively during laparoscopic or laparotomic procedure, while others are detected by transvaginal ultrasonography.[9] In our setting, early diagnosis was limited by the lack of advanced imaging modalities such as MRI and CT scans, which are not available on-site at our obstetric unit. Furthermore, the absence of classic symptoms early in pregnancy—such as abdominal pain or vaginal bleeding—delayed clinical suspicion.

Outcomes in heterotopic pregnancy are varied. According to a systematic review, intrauterine pregnancy progressed to term in 62.5% of cases, preterm birth occurred in 6%, and intrauterine pregnancy loss occurred in 31% of cases.[8] Our case is particularly notable for achieving term delivery, despite the associated ovarian ectopic and intrauterine fetal demise (IUFD). Factors that likely contributed to the favorable maternal outcome included diligent prenatal monitoring, good patient compliance, and immediate presentation to care when concerns arose.

This case shows the need for heightened clinical suspicion of heterotopic pregnancy even in the absence of ART, especially in patients with previous pelvic surgeries. It also emphasizes the critical role of early imaging and multidisciplinary management in optimizing outcomes. Although one case cannot support broad recommendations, it highlights the need for further research into spontaneous heterotopic pregnancies, particularly those reaching advanced gestational ages.

CONCLUSION

We report a rare case of spontaneous heterotopic pregnancy involving an ovarian ectopic component diagnosed at 36 weeks of gestation. Despite the typically poor prognosis associated with heterotopic pregnancies involving extrauterine gestations, our patient achieved a favorable maternal outcome. The case highlights the importance of clinical vigilance, patient education, early imaging, and immediate management of complications. To our knowledge, this is the first reported spontaneous heterotopic pregnancy reaching term with these specific circumstances. Further research and case aggregation are needed to better understand factors influencing prognosis and management strategies in similar presentations.

HUMAN ETHICS STATEMENT

Ethical approval for this case report was obtained in accordance with the principles outlined in the Declaration of Helsinki. Written informed consent was obtained from the patient for the publication of this case report and any accompanying images. The patient was assured of the confidentiality and anonymity of her personal information, and all efforts were made to ensure that her privacy was maintained throughout the preparation of this manuscript.

AUTHOR CONTRIBUTIONS

All authors were involved in drafting the article or revising it.

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