Gazette of Medicine
A Peer-reviewed Medical Journal of the Association of Resident Doctors
University of Port Harcourt
Teaching Hospital,Port Harcourt,
Rivers State, Nigeria
Volume 11 No 1, Jun. 2023 - Nov, 2023

TERM ABDOMINAL PREGNANCY WITH A HEALTHY NEWBORN AND FOLLOWUP OF PLACENTA LEFT IN SITU: A CASE REPORT

Ayodeji Oluwaseun Owolabi[1], Jean-Frances Nkechi Ibe [1], Ijeoma Chioma Oppah[1]

1 *Department of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State, Nigeria*

2

Correspondence: owolabi.deji4@gmail.com

ABSTRACT

Introduction: *Abdominal pregnancy is a rare but potentially the most life-threatening type of ectopic gestation. In term abdominal pregnancies, the mainstay of treatment is surgery. Although the placenta and fetus should be removed when feasible, some cases may necessitate leaving a part or all of the placenta in situ to prevent uncontrollable haemorrhage, as well as morbidity to structures they are attached to.*

Case Presentation: *A case of a 26-year-old nulliparous woman who presented with abdominal pain and an ultrasound scan report of a viable abdominal pregnancy at term. She subsequently had an emergency exploratory laparotomy and extraction of a live baby. The placenta was left in situ due to its attachment to vital structures. Postoperatively, she received some doses of methotrexate and was followed up with serial beta-human chorionic gonadotropin and ultrasound scans.*

Conclusion: *Abdominal pregnancy is an ectopic pregnancy that may result in high maternal and fetal morbidity and mortality. The most severe complication is bleeding from the detached placenta site. Thus, leaving the placenta in situ is a possible option in selected cases.*

Keywords: *Abdominal pregnancy, term, advanced, live baby, ectopic, placenta, methotrexate.*

INTRODUCTION

Abdominal pregnancy is a rare but potentially the most life-threatening type of ectopic gestation. Its incidence is about 1 in 10,000 pregnancies worldwide, and it accounts for 1% of all ectopic gestations.[1] Distinctively, it is the only type of ectopic pregnancy that can lead to the delivery of a live baby. Most abdominal pregnancies are due to early tubal abortion and reimplantation into the peritoneal surface (secondary type). Thus, they result from ruptured tubal ectopic gestations. Though debatable, some cases rarely result from direct implantation of the fertilized ovum on the peritoneal surface (primary type).[2]

Most abdominal pregnancies rarely reach full term and often result in the delivery of a nonviable fetus.[3] Most pregnancies carried beyond the age of fetal viability result in perinatal mortality.[3] The risk of congenital malformations, such as joint and facial deformities, and hypoplasia of the extremities is also significantly increased.[4] In this report, a case of term abdominal delivery is presented with the successful delivery of a healthy baby and an uncomplicated neonatal period.

CASE

She was a 26-year-old Gravida 4 Para 0+3 who presented to the labour ward of the University of Port Harcourt Teaching Hospital (UPTH) with complaints of abdominal pain of one-week duration at 41 weeks of gestation. The pain was gradual in onset, intermittent, and located in the suprapubic region. It radiated to the lower limbs, was aggravated by movement, and was relieved by paracetamol and rest. There was no vaginal bleeding, and she felt fetal

movement. Following the above complaints, she did an obstetric ultrasound scan, which showed features suggestive of an extra-uterine gestation. Hence, she presented to UPTH for care.

The pregnancy was not desired, and she attempted a termination of pregnancy with manual vacuum aspiration at about eight weeks gestation. The pregnancy was registered for antenatal care at 16 weeks gestation at a Primary Health Centre.

The investigations at booking were normal, and an obstetric ultrasound scan reported no abnormal findings. Her antenatal period was normal except for recurrent mild abdominal pains that resolved with paracetamol. She has had three terminations of pregnancies in the past, and her past medical and surgical history were not significant.

On examination at presentation, she was healthy-looking, and her vital signs were stable. There was no abnormality noted in the respiratory and cardiovascular system. Her abdomen was gravidly enlarged with a 36-week fundal height and a cephalic presenting singleton active fetus. The fetal heart rate was 142bpm and was regular. The pelvic examination showed a normal vulva and vagina. The cervix was displaced to the left, firm, closed, and uneffaced. Her packed cell volume was 26% on admission, but the other blood tests were normal. A repeat obstetric ultrasound scan showed a viable fetus lying outside the uterus. The placenta was located at the medial side at the lower pole of the liver. Magnetic resonance imaging (MRI) was requested but was not done. She received two units of blood, and the post-transfusion packed cell volume was 33%. She was counselled on her condition, and informed consent was obtained for surgery.

She subsequently had an emergency exploratory laparotomy and extraction of a live baby for an abdominal pregnancy a day after presentation. Intraoperative findings were a live male baby in an intra-abdominal

amniotic sac. The APGAR scores were 8 and 9 at 1 and 5 minutes respectively, and the birth weight was 3.4kg. An intraperitoneal placenta that extended from the pelvis to the epigastrium, covering and implanted on the bladder, uterus, ovaries, intestines, and the lower lobe of the liver, was also noted. The umbilical cord was ligated close to its placenta insertion, and the cord stump was excised. The placenta was left in situ. The estimated blood loss was 200mL, and an intra-abdominal drain was left in situ. The baby was sent to the special care baby unit by the neonatologist for observation and was returned to the mother the same day.

Postoperatively, she was closely monitored, and her vital signs were stable. She received intravenous fluids, antibiotics, and analgesics. Her postoperative pack cell volume was 33%. The abdominal drain was removed on the 12th postoperative day. She had a prolonged hospital stay for 18 days to allow for closer monitoring of the placenta that was left in situ. Serial beta-human chorionic gonadotropin and abdominopelvic ultrasound scans were carried out, and she received three doses of 50mg intramuscular methotrexate on the 1st, 12th, and 22nd postoperative days. Abdominopelvic ultrasound on the 7th week postpartum showed a complex intraabdominal mass at the suprapubic region that measured 17.4 X 14.0cm. The mass was generally avascularized and with cystic areas. There was no evidence of free peritoneal fluid. The beta-human chorionic gonadotropin on the 5th, 7th, and 11th week postpartum were 62.80mIU/mL, 1.90mIU/mL, and 1.06 mIU/mL, respectively. She was then seen every two months and discharged from the clinic after six months.

Figure 1: Enlarged abdomen before incision.

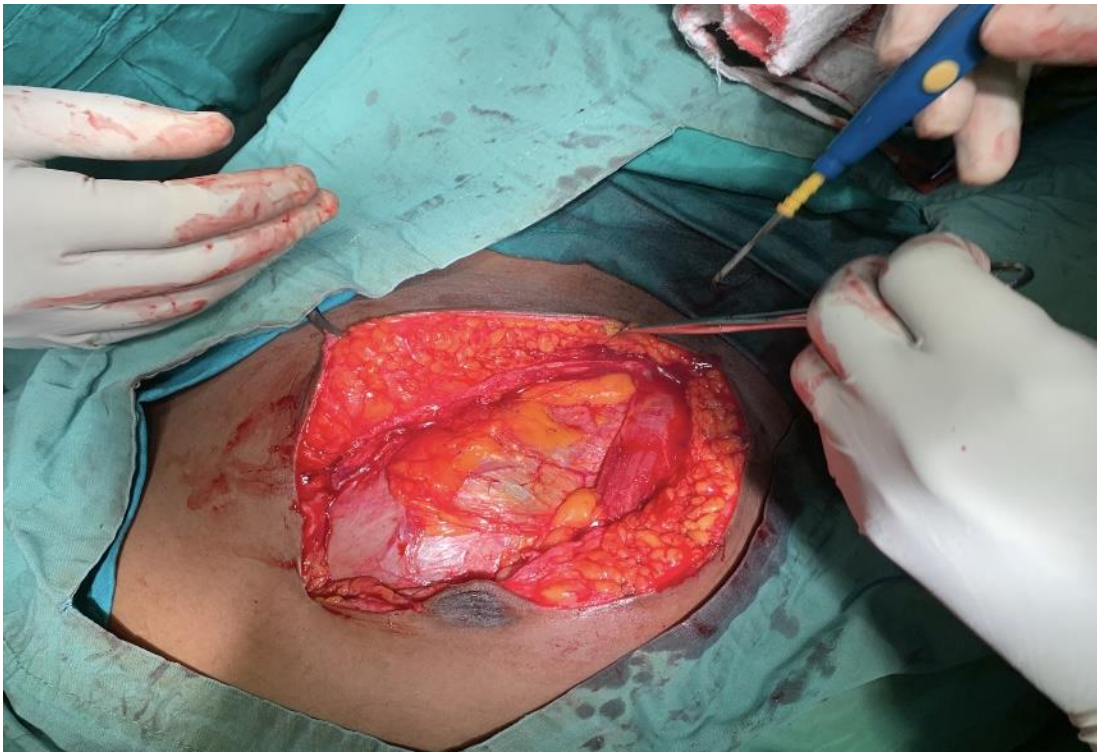

Figure 2: Midline incision made; intact amniotic sac noted.

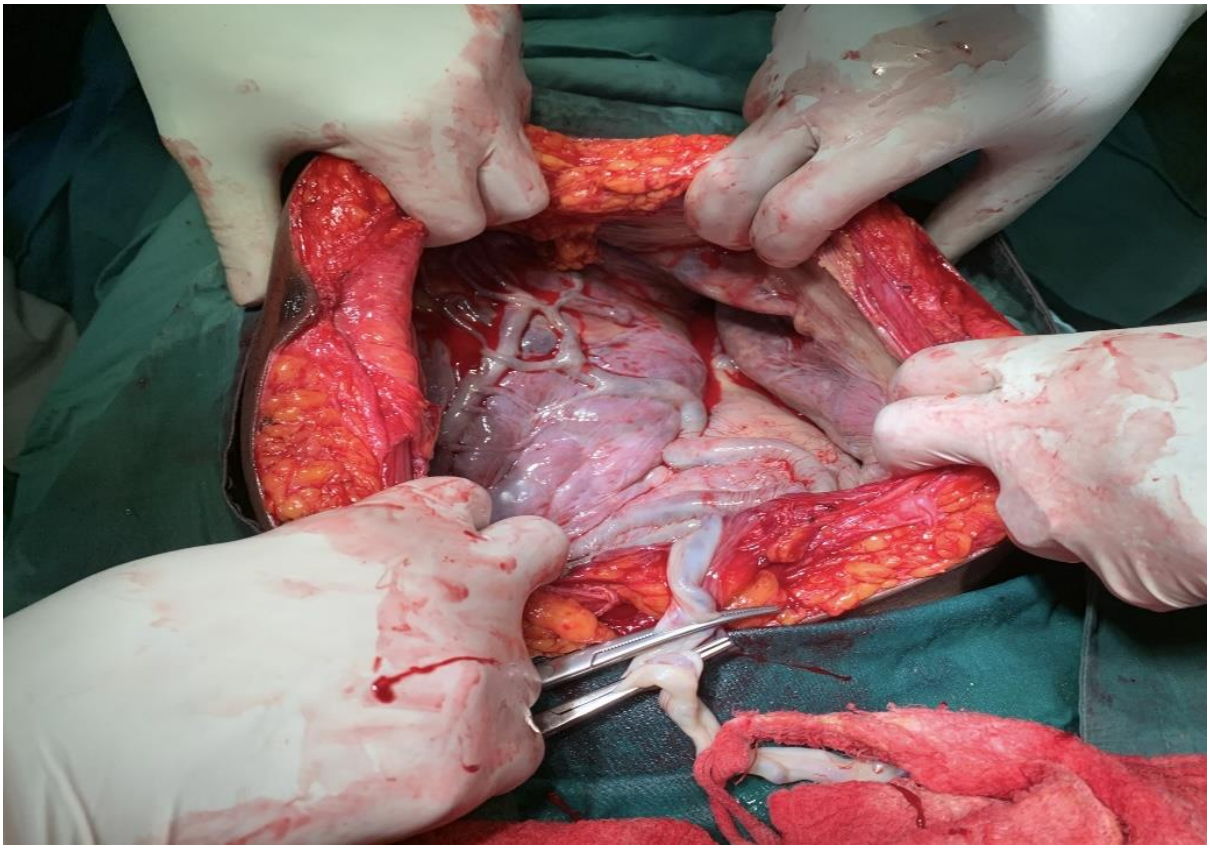

Figure 3: Placenta extended from the pelvis to the epigastrium, attached to the liver, intestines, uterus, and bladder.

DISCUSSION`

An abdominal pregnancy occurs when an embryo implants within the abdominal cavity but outside of the female reproductive tract. Abdominal pregnancy does not exhibit any pathognomonic signs, and the presentation depends on the gestational age and the implantation site.[2]

In advanced abdominal pregnancy, women might be asymptomatic. It is essential to have a high index of suspicion in making a diagnosis, as some might be interpreted as intrauterine gestation, as seen in the index

case. Abdominal pain remains the most common complaint. Others include painful fetal movement, vaginal bleeding, and gastrointestinal symptoms.[5] Possible examination findings include abdominal tenderness, abnormal lie, easily palpable fetal parts, and firm and uneffaced cervix.[6]

Detection of advanced abdominal pregnancy by ultrasound scan requires awareness of unusual findings like the absence of a uterine wall between the urinary bladder and the fetus, fetal gestational sac outside the uterus, a close approximation of the fetus to the maternal abdominal wall, and placenta outside the uterine cavity.[7] MRI may be necessary for placenta mapping, determining vascular supply, and planning surgery.[2]

In term abdominal pregnancies, as in the index case, the mainstay of treatment is surgery.[2] Conservative management can be considered with strict in-hospital care in the case of a live, viable fetus that is remote from term.[4] The surgical procedure is complex due to the possibility of severe haemorrhage as well as damage to intra-abdominal structures. Most surgical challenges are related to removing the placenta, especially in the absence of an MRI for placenta mapping before the procedure, as in the index case. Thus, there is a need for multidisciplinary care involving the general surgeon and the interventional radiologists. Although the placenta and fetus should be removed when feasible, a clinical scenario like the index case may necessitate leaving a part or all of the placenta in situ.[8] This prevents the possible uncontrollable haemorrhage as well as morbidity to structures they are attached like to, like the liver and intestines in the index case. However, there is a danger of relaparotomy due to infection or bleeding if the placenta is left in situ.[9]

The use of postoperative methotrexate to aid placental involution is controversial considering the side effects and that some

reported minimal effect.[9,10] In a review of 14 cases of abdominal pregnancy over ten years, only two patients with advanced pregnancies and live fetuses (14.3%) were allowed to have conservative management. Only one baby was delivered alive, and the baby had early neonatal death. Six babies had congenital anomalies (all had talipes equinovarus, and two had jaw malformations).[3]

CONCLUSION

Intra-abdominal pregnancies are life-threatening and can be carried to term. The babies survive via extensive placental attachment to abdominal organs, making surgical treatment a mainstay. The delivery of the baby by laparotomy, leaving extensively attached placenta in situ and post-operative methotrexate was demonstrated as a viable option in preventing morbidity and mortality.

REFERENCES

1. Yoder N, Tal R, Martin JR. Abdominal ectopic pregnancy after in vitro fertilization and single embryo transfer: a case report and systematic review. *Reprod Biol Endocrinol RBE*. 2016;14(1):69.

2. Mamo A, Adkins K. Abdominal Pregnancy: Pathophysiology, Diagnosis, and Treatment. *J Gynecol Surg*. 2022;38(3):193–6.

3. Ayinde OA, Aimakhu CO, Adeyanju OA, Omigbodun AO. Abdominal pregnancy at the University College Hospital, Ibadan: a ten-year review. *Afr J Reprod Health*. 2005;9(1):123–7.

4. Rohilla M, Joshi B, Jain V, Neetimala, Gainder S. Advanced abdominal pregnancy: a search for consensus. Review of literature along with case report. *Arch Gynecol Obstet*. 2018;298(1):1–8.

5. Aliyu LD, Ashimi AO. A multicentre study of advanced abdominal pregnancy: a review of six cases in low resource settings. Eur J Obstet Gynecol Reprod Biol. 2013;170(1):33–8.

6. Sunday-Adeoye I, Twomey D, Egwuatu EV, Okonta PI. A 30-year review of advanced abdominal pregnancy at the Mater Misericordiae Hospital, Afikpo, southeastern Nigeria (1976–2006). *Arch Gynecol Obstet.* 2011;283(1):19–24.

7. Phatak S, Patange N, Rawekar S. Sonographic Diagnosis of Intra-abdominal Pregnancy. *Int J Recent Surg Med Sci.* 2016;02(01):052–4.

8. Tolefac PN, Abanda MH, Minkande JZ, Priso EB. The challenge in the diagnosis and management of an advanced abdominal pregnancy in a resource-low setting: a case report. *J Med Case Reports.* 2017;11(1):199.

9. Xu L, Xiang Z, Wu T, Feng S. Advanced Abdominal Pregnancy with Retained Placenta and Methotrexate-Induced Severe Bone Marrow Suppression: A Case *Report. Biomed J Sci Tech Res.* 2019;19(4):14487–8.

10. Oriaifo N, Njoku AI, Oriaifo SE, Oriaifo MO. Adjunctive use of methotrexate in the management of advanced abdominal pregnancy: a case report and literature review. *Int. Res. J. Pharm. Pharmacol.* 2014; 4(2):18-21.