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CASE REPORT

# A Rare Case of Secondary Abdominal Pregnancy that Resulted in a Healthy Newborn

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#### Introduction

Abdominal pregnancy is a rare and life-threatening ectopic pregnancy, defined as an intraperitoneal implantation exclusive of tubal or ovarian implantation. Ectopic pregnancy represents about 1–2 % of all pregnancies with 95 % occurring in the fallopian tube. Abdominal pregnancies represent just 1 % of all ectopic pregnancies. The incidence of abdominal pregnancy is 1:10,000 live births, but advanced abdominal pregnancy is seen in 1:25,000 live births [1]. Its prognosis is poor, with a maternal mortality rate of 5–18 % and perinatal mortality rate of 40–90 %. Abdominal pregnancy with a live fetus at term is a rare condition. We present one such case.

## Case Report

A 20-year-old Gravida2 Para 1 patient came for an emergency visit on 23-12-11. She had one full-term normal

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vaginal delivery 2 year ago. On arrival, her principal complaint was severe abdominal pain. She had irregular menstrual cycles prior to her pregnancy and was not sure of her last menstrual period. She complained of on and off abdominal pain, mild in intensity, throughout gestation. It was, however, aggravated since 1 day. She did not have any antenatal checkup before this visit.

On examination, she was stable. Pallor was absent. Her vital signs were within normal limits. No abnormality was detected on cardiovascular and respiratory system examination. Abdominal examination revealed symphysiofundal height of 33 cm; the fetus was in a transverse lie, and fetal heart rate was 136 beats/min. On vaginal examination, the cervix was posterior, measuring 2 cm without dilatation or effacement. There was no vaginal bleeding.

Her hemoglobin was 10.7 g/dl and blood group was o Rh positive. On ultrasound examination, the uterus was found empty and a 33-week live fetus was lying in abdomen, separate from uterus (Picture 1). The fetus was in a transverse lie. The placenta was poorly defined and there was severe oligohydramnios.

A diagnosis of secondary abdominal pregnancy was made and the patient was taken for laparotomy after for arranging two units of blood. The appropriate high risk consent was taken.

The abdomen was opened by a vertical incision and a live female fetus was taken out of the peritoneal cavity. The baby weighted 2.3 kg and cried immediately after birth, but then had respiratory distress and was shifted to the NICU. The baby did not have any congenital



malformation or deformities. Liquor was absent. The placenta was found stuck to the left cornu of the uterus with a broad pedicle and was getting blood supply from it. The placenta was completely removed and its pedicle clamped and ligated (Picture 2). The right fallopian tube and both ovaries were normal, but the left tube could not be identified. Other abdominal organs were normal. The total estimated intraoperative blood loss was 800–1,000 ml. One unit of whole blood was transfused. Complete hemostasis was secured.

The mother had an uneventful postoperative period. The baby was in the NICU for 3 days, after which she was discharged. The mother was discharged on the 8th day after stitch removal. Then, she did not report to the postnatal clinic and was lost to follow-up.

### Discussion

Advanced abdominal pregnancy is extremely rare. On a Medline search for "secondary abdominal pregnancy reaching viable state," only 11 cases reported in last 10 years could be found. The risk factors are the same as for ectopic pregnancy.

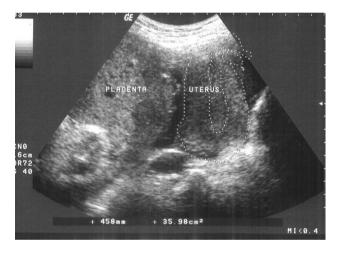
A high index of suspicion is required for its diagnosis as history and physical examinations are often inconclusive. In the first and early second trimester, the symptoms can be same as with ectopic tubal gestation, but in advanced cases, presentation is often more variable and consists of abdominal pain, gastrointestinal symptoms, painful fetal movements, fetal movements high in the upper abdomen, abnormal presentation, uneffaced and displaced cervix, and vaginal bleeding. Diagnosis may be suspected when there are no uterine contractions even after oxytocin administration. It is easier to appreciate abdominal pregnancy on USG examination in the first trimester; however, presentation at advanced gestation poses considerable diagnostic errors. In different series, diagnostic errors have ranged from 50 to 90 %. In fact, MRI is considered as a gold standard for diagnosis. Elevated maternal alpha fetoprotein levels have been found to be associated with abdominal pregnancies, especially with more extensive visceral involvement.

When it is recognized, immediate laparotomy with removal of the fetus is recommended. During laparotomy, bleeding from the placental implantation site is the most life-threatening complication. The decision to remove the placenta or not is subject to the surgeon's expertise and the particular case in question. At surgery, the placenta can be removed if its vascular supply can be identified and ligated. If vascular supply cannot be identified, it is generally recommended to leave the placenta in situ. Such cases are followed with human chorionic gonadotrophin levels and

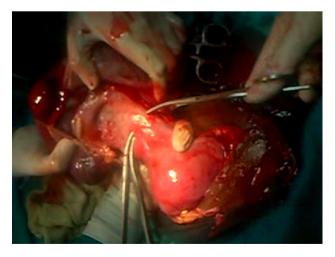
serial ultrasound. Bowel obstruction, fistula formation, and sepsis are potential complications of leaving the placenta in situ. In this case, the placenta was completely removed as it was possible to remove it without causing much blood loss and the placental pedicle could be securely tied. Angiographic arterial embolization has been described [2].

Methotrexate treatment appears to be contraindicated because of a high rate of complications, including sepsis and death, due to rapid tissue necrosis [3].

It is very important to rule out congenital malformations in the newborn. Fetal malformations as high as 40 % are associated with abdominal pregnancies and only 50 % of these babies survive up to 1 week postpartum. Birth defects are due to compression in the absence of amniotic fluid. Cranial and facial asymmetries and joint abnormalities are typical deformations. Pulmonary hypoplasia, CNS malformation, and limb defects are the most common



Picture 1 Grey scale ultrasound picture showing empty uterus and placental implantation outside uterus



Picture 2 Laparotomy picture showing attachment of placental pedicle to cornu of uterus



malformations. In our case, the baby had no congenital malformation and after facing initial distress, recovered well and was discharged in good condition.

fetal malformation is one of the numerous challenges that can confronts the newborn.

### Conclusion

Abdominal pregnancy with a resultant healthy newborn is indeed very rare. If pregnancy is advanced, diagnosis of the condition is particularly difficult. A high level of suspicion and careful clinical and ultrasound examinations are routine means of diagnosis. CT scan and MRI can be useful. Bleeding from the placental bed is the single most important life-threatening complication for the mother, while

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