

Advanced abdominal ectopic pregnancy with alive fetus: a rare case report

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ABSTRACT

Introduction: Advanced abdominal ectopic pregnancy is a rare condition with grave consequences for both mother and fetus. Pre-operative diagnosis and management of advanced abdominal pregnancy is difficult. High index of suspicion is important for early diagnosis and prompt management. Though rare, we are reporting a case of advanced abdominal pregnancy with live newborn in Dr. RPGMC kangra at Tanda.

Case Report: A 38 year old lady conceived after 17 years of marriage presented to the OPD with severe oligohydroamnios. She was admitted and after initial work up and ultrasound, she was diagnosed as precious pregnancy with breech presentation with bicornuate uterus with type IV placenta previa with severe oligohydroamnios. Patient planned for elective caesarean section. Intraoperatively it was an advanced abdominal pregnancy, there was a pseudosac containing fetus, and uterus was lying separately from the gestational sac. An alive female fetus of weight 2.7kg was delivered. A torrential haemorrhage started after separation of the placenta, though haemostasis achieved later on. Post-operative period was uneventful. Patient discharged on 10th day after surgery and followed up subsequently.

Key words: Abdominal pregnancy, advanced abdominal pregnancy, placenta, alive fetus, ectopic pregnancy, oligohydroamnios.

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Conflict of interest: No

Case report is Original: YES/NO

Whether case report publishes any where? YES/NO

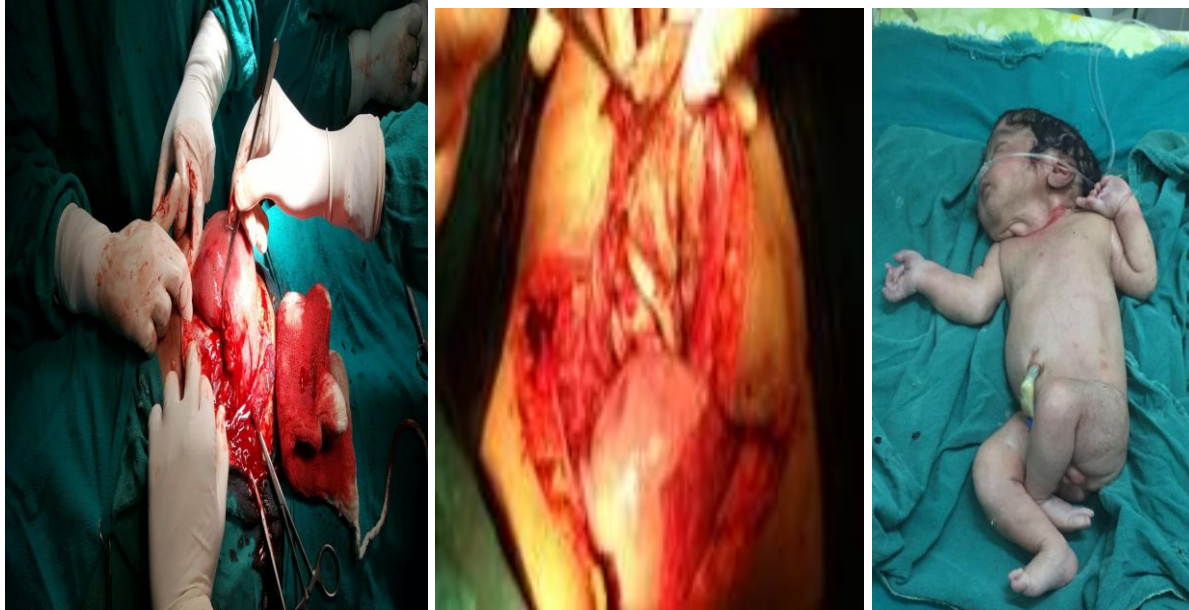
INTRODUCTION

Abdominal pregnancy is a rare form of ectopic gestation where the gestational sac implants in any structure within the peritoneal cavity. It constitute about 1% of ectopic gestation.¹The estimated incidence is 1:3000 to 1:20,000 of live births.² Advanced abdominal pregnancy (AAP) is defined as a pregnancy of over 20 weeks of gestation with a fetus living in mother's abdominal cavity external to the uterine cavity and fallopian tube.³ Occasionally, an ectopic pregnancy aborts backwards down to a tube or bursts out of it without killing the patient and embeds itself elsewhere in the abdominal cavity, or an ovum is fertilised outside a tube on the surface of an ovary and implants in the abdominal cavity anywhere, but as the placenta is large, it is always attached to the gut ormentum somewhere.^{4,5} AAP can be classified as being primary or secondary.⁶ Primary AAP occurs when the fertilised ovum implants directly into the peritoneal cavity; primary AAP is less common type. Secondary AAP occurs when the fertilized ovum first implants in the fallopian tube or the uterus and then due to fimbrial abortion or rupture of the fallopian tube or uterus, the fetus comes to live and develop in the mother's abdominal cavity. Ruptured tubal ectopic pregnancies account for the majority of AAP.^{7,8} Making the diagnosis of AAP is difficult even with the ubiquitous use of sonography during pregnancy.⁹ Most of the cases of AAP are only diagnosed during surgery.¹ It is estimated to occur in 10 out of 100,000. The diagnosis of such a condition is frequently missed during antenatal period, despite the routine use of abdominal ultrasound. However, it is extremely important to detect an extrauterine abdominal pregnancy because the associated maternal mortality rate is estimated at about 5/1000 cases, which is approximately seven times higher than the estimated rate of ectopic pregnancy in general, and about 90 times the maternal mortality rate.¹⁰ Abdominal pregnancy is associated with increased risk of early pregnancy wastage, fetal malformations, perinatal morbidity and mortality as well as maternal morbidity and mortality.¹¹

CASE REPORT

A 35-year-old primigravida with precious pregnancy married for 17 years,with 23 weeks pregnancy with severe oligohydroamnios referred from some peripheral institute to Dr. RPGMC kangra at Tanda. On repeat USG in our institute,report was a single alive intrauterine fetusof gestational age 23 weeks in one cornua of bicornuate uterus with severe oligohydroamnios (AFI 2) with no gross congenital malformation seen. All other antenatal investigations were normal. Patient was advised admission and counselled regarding poor prognosis of fetus. Patient refused for the admission as she was asymptomatic and reported again after 3 weeks in the OPD. USG repeated was showing bicornuate uterus with a live fetus of gestational age 26 weeks in one cornua with severe oligohydroamnios (AFI 3) with type IV placenta previa. She was told regarding sudden intrauterine death of the fetus and haemorrhagic complications. Patient referred to higher centre for salvage of fetus. But due to low socioeconomic status and lack of finances she refused for the referral. She also refused for admission in this hospital as she was asymptomatic, due to her household problems and she committed for weekly follow up in our hospital. Patient reported after that at 31week of POG in OPD with complaint of pain abdomen, but there was no associated bleeding per vaginum or urinary complaints. On admission, her vitals were stable, no pallor, no significant findings in general physical examination, on per abdomen examination height of uterus was

28 weeks with breech presentation, FHS was regular- 140bpm, uterus was relaxed. Per speculum examination was normal. All investigations were normal including complete haemogram, urine examination, renal and liver function test. On repeat USG there was bicornuate uterus with type IV placenta previa with a live fetus with breech presentation with severe oligohydroamnios with AFI 4, no congenital malformations seen in fetus. MRI was done, showing the same findings. She was advised rest, progesterone, pain subsided later on. Intensive fetal and maternal monitoring was started. Patient and relatives were counselled regarding instant need for blood and caesarean section in case of emergency. Risk of congenital malformation in fetus also explained to the patient and relatives. Steroids were given for the lung maturity. As everything was going smoothly we planned elective caesarean section at 34 weeks. An elective caesarean section was performed via a Pfannenstiel incision by the junior member of the obstetric team. On opening the peritoneum, the baby was lying in the abdominal cavity covered with a pseudosac. Uterus was of 16-18 week size was lying separately from the gestational sac. Bilateral fallopian tubes and ovaries were normal, no evidence of recent or remote injury. No evidence of uteroperitoneal fistula was found. There was a small tear on the pseudosac which was extended; a living female baby is extracted as breech. After cutting the umbilical cord baby is handed over to the paediatrician. Placenta was within the sac attached to the omentum, mesentery and in the presacral area. As soon as the placenta was removed, massive and torrential bleeding started. Immediately pressure packing done in abdominal cavity. Intravenous fluids and blood rushed immediately. Intra-operatively general surgeon also called, there were multiple small bleeders on the mesentery, omentum and in the presacral area, and were bleeding profusely. All the bleeders secured meticulously and complete haemostasis achieved. Complete removal of placenta ensured. Abdominal drain kept. Abdomen closed in layers and dressing done. Six blood transfusions and two FFPs were given. Patient shifted to ICU. Baby's Apgar score was satisfactory, but there were multiple deformities like dolichocephalic skull, talipes deformities in lower limbs, low set ears, short neck and wide-spaced nipples. Baby was referred to paediatric unit. Post-operative period was uneventful. Patient was discharged on the 8th postoperative day.



DISCUSSION

Abdominal pregnancy falls under the umbrella of ectopic or extrauterine pregnancy. It is usually secondary.¹² Abdominal pregnancies refer to those with extrauterine implantations in omentum, vital organs, or large vessels. These pregnancies can go undetected until an advanced gestational age and often result in severe haemorrhage. Rates of maternal mortality have been reported as high as 20%. Advanced abdominal pregnancy carries a risk of haemorrhage, disseminated intravascular coagulation, bowel obstruction, and fistulae.¹³ Implantation have been reported in the cul-de-sac, broad ligament, bowel and pelvic sidewall. The site of implantation and availability of vascular supply are believed to be factors that may influence the possibility of fetal survival.¹⁴ Risk factors for abdominal pregnancy include tubal damage, pelvic inflammatory damage, endometriosis, assisted reproductive techniques, and multiparity.¹⁵ Primary abdominal pregnancy must meet the three criteria: (1) Both tubes and ovaries must be in normal condition with no evidence of recent or remote injury. (2) No evidence of utero peritoneal fistula should be found. (3) The pregnancy must be related exclusively to the peritoneal surface and be early enough to eliminate the possibility that it is a secondary implantation following a primary implantation in the tube.¹⁶ An undiagnosed AAP which progresses to term may be asymptomatic. In any case, a high index of suspicion is crucial and should be triggered by any of the following indirect clues: *Persistent abdominal pain from 26 to 28 weeks onwards of variable severity, which is not well localized.* Perception on the part of the mother or physician that something is not right.* Impossibility to delineate uterus and feels odd during palpation.*Fetal parts may be abnormally easy or abnormally difficult to feel.* Persistent abnormal fetal lie.* Oligohydroamnios or intraperitoneal maternal fluid.* Displaced cervix or abdominal mass palpated apart from the fetus.*Inability to stimulate uterine contractions with oxytocin or any other uterotonic drugs.* Unusual echographic appearance of the placenta. ^{17,18} The diagnosis of abdominal pregnancy is often made by using ultrasound and X-ray. The classic ultrasound finding is the absence of myometrial tissue between the bladder and pregnancy. Elevated serum alpha-fetoprotein has been associated with abdominal pregnancy. Diagnostic laparoscopy may also be of value when there is doubt about pregnancy location. MRI holds promise as a diagnostic tool.¹⁹ Treatment of abdominal pregnancy is surgical. The principal controversy regarding management of AAP is whether or not to remove the placenta. Because the abnormally implanted placenta's blood supply is diffuse and often unidentifiable, attempts to remove it can incite catastrophic haemorrhage.²⁰ when possible, ligation of placental blood supply and removal should be attempted to reduce maternal complications. Alternatively, the umbilical cord may be ligated and expectant management, arterial embolization, or methotrexate to facilitate the involution. However living the placenta in situ may lead to further complications such as infection, secondary haemorrhage, or intestinal obstruction. Laparoscopy has been used in the treatment of some early abdominal pregnancies. The conservative management should only be undertaken when the abdominal pregnancy has implanted on a less vascular surface.²¹ Where blood transfusion and intensive care are not readily available, leaving the placenta in situ has been recommended. Placental removal is done after assessing for safety and feasibility of removal.²²The findings of cranial asymmetry in the newborn was not unusual because about 20% of AAP infants have malformations and deformations.²³ We ascribe this cranial asymmetry to skull compression

due to lack of protective myometrial wall and perhaps the reduced amniotic fluid noted in sonography. Although perinatal morbidity and mortality are high with AAP.22

CONCLUSION

Advanced abdominal ectopic pregnancy is a life threatening situation. Pre-operative diagnosis is difficult, so high index of suspicion is required. Quick intra-operative recognition, surgical skill, immediate availability of blood products, intensive post-operative care and monitoring are vital for saving such type of patients.

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