



Case Report

Abdominal Pregnancy: A Case Report

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Abstract:

This case was a 25 years old unbooked gravid 5th, para P=1-1 (neonatal death) +3 (abortion) women who had no living child. According to her LMP she was 27 weeks of pregnancy. She was received to the Gynaecology and Obstetrics emergency unit with lower abdominal pain and per vaginal bleeding with less fetal movement for last 2 days following a long journey. Emergency USG was done, report showed 27 weeks of pregnancy with IUD and possibility of bicornuate uterus. She was initially managed by induced labour with medical induction. Surgical intervention became necessary after two days of induction failure. The maternal outcome was favorable. So this case is presented here to highlight the dilemma associated with diagnosis and management of abdominal pregnancy.

Keywords: Abdominal pregnancy, ectopic pregnancy

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Introduction:

Abdominal pregnancy is a rare form of ectopic pregnancy with very high maternal and fetal morbidity and mortality¹. It is frequently missed during antenatal care. It is normal for implantation of the fertilized ovum to occur within the uterine cavity. Where the developing embryo implants and grows within the peritoneal cavity that is called abdominal pregnancy². Abdominal pregnancy can be further classified as being primary or secondary. Primary- when a fertilized ovum implants itself initially on some abdominal organ^{1,3}. Most of the case abdominal pregnancies were secondary in that the ovum first implants in the fallopian tube, ovary or uterus and subsequently escape through a rupture in the peritoneal cavity^{2,3}.

About 2% of all pregnancies are ectopic according for 10% of all pregnancy related to death¹. More than 95% of ectopic gestations occur within the fallopian tube². Abdominal ectopic pregnancy was first reported in 1708, followed by numerous case reports particularly from middle and low income regions of the world³. A viable life fetal outcome is extremely rare. The incidence of abdominal pregnancy ranges from 1 in 10,000 to 1 in 30,000 pregnancies^{4,5}. In the developed world abdominal pregnancy is extremely rare and very few of such cases have been published in the last 10 years³⁻⁶.

The risk for developing abdominal pregnancy are endometriosis, pelvic inflammatory disease, assisted reproductive techniques, tubal occlusions, and multiparity⁶⁻⁸. A high index of suspicion is crucial

for prompt diagnosis and management especially in low resource countries⁷. In most of the case the diagnosis is made on the basis of ensuring complications such as hemorrhage and abdominal pain⁸. These pregnancies generally do not get to 37 weeks (term pregnancy) and usually the end result is the extraction of a dead fetus^{6,8}. Here we report a case of 27 weeks abdominal pregnancy in an unbooked multipara who had done laparotomy with delivery of a dead fetus.

Case report:

A 28 years old, 5th gravida P=1-1(neonatal death) +3 (septic abortion) came to ICMH (Institution of Child & Mother Health) on 27th Feb, 2008 at her 27 weeks of pregnancy. She was regularly menstruating women, but she did not get any antenatal checkup. At her 27 weeks of pregnancy, after a long journey she noticed lower abdominal pain with P/V bleeding and less fetal movement for last 2 days. Pain was colicky in nature and diffusely distributed in lower abdomen. Bleeding was small amount, 3 episodes, dark in color and not associated with uterine contraction.

On examination, she looked generally stable. She was slightly pale, vital signs were within normal parameters, cardiovascular and respiratory systems examination revealed no abnormalities. The abdominal examinations revealed symphysio-fundal height 28 cm, longitudinal lie, cephalic presentation, fetal parts were easily palpable, no fetal heart sound and no uterine contraction.

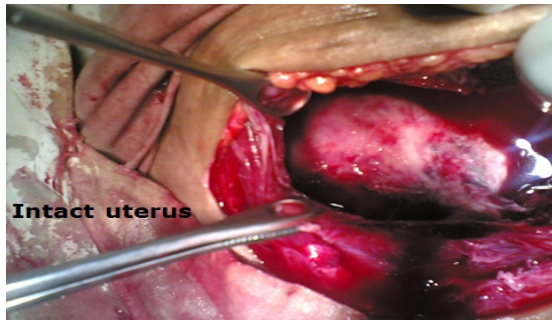
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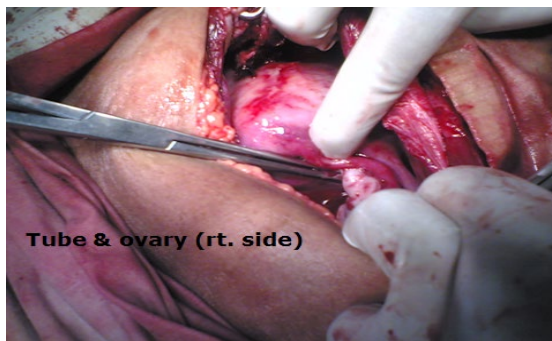
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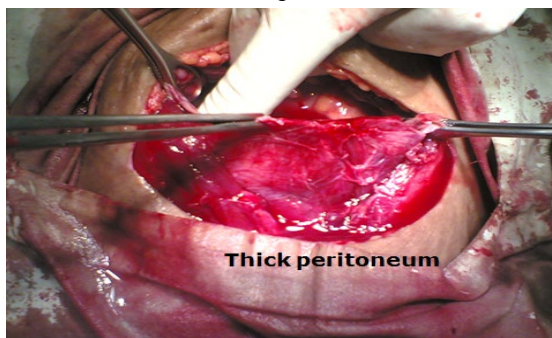
Vaginal examination revealed posterior located cervix, measuring 2 cm long without dilation. There was no vaginal bleeding. As she had no antenatal investigations. USG of pregnancy profile and other routine investigations were done. USG showed intrauterine gestation with cephalic presentation and posterior placenta with no fetal movement and no cardiac pulsation and possibility of a bicornuate uterus. The rest of the investigations were normal. The hemoglobin level was 10.2 gm/dl. Blood grouping: 'B' Rhesus positive.



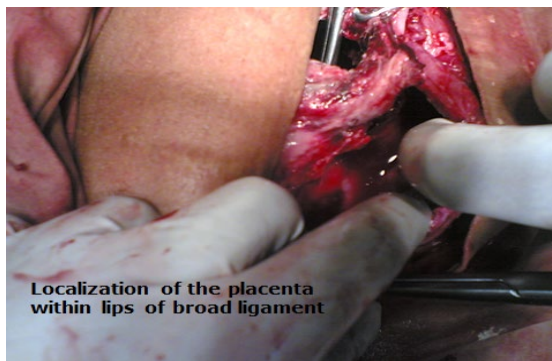
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Figure-1: Surgical snaps of the abdominal pregnancy case. a) Intact uterus b) Rt falopian tube & ovary c) Thick peritonium d) Localization of placenta within lips of broad ligament e) dead fetus

As cervix was unfavorable and fetus was dead, induction by maximum dose of prostaglandin was given but did not respond. So induction by intracervical Foley's catheter followed by injection oxytocin done but it was also failed and patient developed sign symptoms of chorioamnionitis. So decision of laparotomy was taken. Abdomen was opened. After splitting the rectus sheath, parietal peritoneum was found to be very thick. Massive adhesion was found involving the urinary bladder, omentum & adjoining tissue of left adnexal region. Intact amniotic sac with the baby inside was found in the abdominal cavity. Baby was macerated & delivered per abdominally. Placenta was partially separated & delivered manually from the area between the two layers of left broad ligament.

Severe offensive smell came out from the abdominal cavity. Uterus was 14 weeks size, intact & was separated from the amniotic sac. Guts were free from adhesions. Both the tubes, ovaries were apparently healthy. Proper haemostasis was done. Peritoneal toileting was done by warm normal saline. A drain tube was kept in situ. After counting mops & instruments abdomen was closed in layers. Intraoperatively, the patient received 1 unit of blood. There was no evidence of anomaly documented in the baby. The patient recovered uneventfully and was discharged home on 7th postoperative day.

Discussion:

A high index of suspicion was needed to make a first time diagnosis of abdominal pregnancy⁹. Diagnosis was missed in one-fourth of reported cases¹⁰. Multiparity and poor socio-economic status were implicated as epidemiological factors.

The incidence of abdominal pregnancy now appears to be increasing in both developed and developing countries. In the developed countries due to increasing use of assisted reproductive technology¹¹ and in the developing countries, particularly in rural

areas presumably due to the restriction of human resources and diagnostic facilities and poor utilization of medical care by pregnant women¹².

Due to misdiagnosis and inappropriate treatment, complications in the natural course of condition and late presentation morbidity and mortality for the parturients and babies were significantly high¹³.

A recent review of 163 cases of abdominal pregnancy revealed that identification of this condition was often missed with only 45% cases diagnosed during the prenatal period¹⁴. In this case, patient did not have any prenatal care and had history of abdominal pain with P/V bleeding for 2 days. Another factors to consider in the fact that she had history of abortion followed by dilatation and curettage previously that could cause abdominal pregnancy. Interestingly, the most common symptoms in abdominal pregnancy were abdominal pain (100%), nausea and vomiting (70%), general malaise (40%), sometimes P/V bleeding¹⁵. Our patient had sudden abdominal pain with P/V bleeding for 2 days.

According to Studdiford's criteria, the diagnosis of primary abdominal pregnancy was based on the following anatomic conditions: Normal tubes and ovaries, absence of utero-placental fistula, attachment exclusively to a peritoneal surface early enough in gestation to eliminate the likelihood of secondary implantation from primary site¹⁶.

In this case both ovaries and fallopian tubes were intact and no utero-placental fistula and implant on peritoneum. So this case was Primary Abdominal Pregnancy. Abdominal pregnancy should be suspected after failed induction of pregnancy in any trimester. In this case induction was failed, so decision for laparotomy was done. Diagnosis of abdominal pregnancy was often missed during routine ultrasonography. The classical ultrasound finding of abdominal pregnancy was – absence of myometrial tissue between the maternal bladder and the pregnancy especially at advanced gestational age¹⁷.

An empty uterus may be easily visualized. In this case USG misdiagnosed the case as there was no USG in early pregnancy. USG done at 27+ week of pregnancy, which indicate IUD with bicornuate uterus. Non-contrast Magnetic Resonance Imaging (MRI) is a sensitive, specific and accurate method for evaluating ectopic pregnancy and may help in surgical planning¹⁸. For accurate pre-operative diagnosis, CT scan and MRI have been used successfully¹⁹. A lateral X-ray showing fetal parts overlying maternal spine was also helpful¹⁹.

In contrast to the tubal ectopic pregnancies, primary methotrexate therapy of early gestations has a high risk of failure due to the more advanced gestational age at which pregnancies were discovered. Abdominal pregnancy at an early gestation (first trimester) can be managed by operative laparoscopy as removal of the small and less vascular placental tissue is easier²⁰. Expected management to gain fetal maturity has been successful attempted in a few cases²¹. Very close maternal monitoring is essential in those who decide to wait for fetal maturity. In late pregnancy pre-operative selective arterial embolization may be done to prevent hemorrhage during removal of large placenta²².

Bleeding from placental implantation site could be massive and life threatening and is often the most common cause of maternal mortality which can reach as high as (20-30)%²⁰. The decision to remove or leave the placenta should depend on extent of the placentation particularly with the bowel and omental involvement as well as on the expertise of the surgeon. Ligating the umbilical cord and living the placenta in situ is one option. The patient can then be followed without further intervention or active intervention using arterial embolization or methotrexate can be instituted to hasten involution²². USG guided feticide of a 14.5 weeks gestation to prevent further development and initiate the process of natural resorption has been reported²³.

In this case placenta was partially separated and delivered manually from the area between the two layers of left broad ligament. No massive blood loss, bleeding was controlled.

Fetal deformations and perinatal death occurred more often than maternal death²⁴. Common malformations in fetus include facial and cranial asymmetry, joint abnormalities (e.g. talipes equinovarus), hypoplastic limbs and central nervous system malformations. Pregnancies with some vascular attachment to the uterus seem to be associated with a high chance of fetal survival. An abdominal pregnancy is often associated with fetal deformities²⁵, such as facial and cranial asymmetry, joint abnormalities and limb deformity, and central nervous system deformities in about 21% of cases²⁴.

In our cases, there was no evidence of deformity or abnormalities as per the team of pediatricians. In this case fetal death at 27 weeks but no malformation was visualized. Abdominal pregnancy is associated with high perinatal mortality²⁶. Lithopedion ("stone child") may result from dead and calcified abdominal pregnancy when it goes undetected for long periods. It may cause a intestinal obstruction due to adhesions, intra-abdominal abscess and fistula²⁷.

Conclusion:

A high index of suspicion and recognition of signs and symptoms are therefore detrimental to diagnosis and guide to a prompt surgical emergency. In patients with acute symptoms and lack of prenatal care, abdominal pregnancy should always be a differential diagnosis. Prompt delivery of fetus, followed by and control of hemorrhage and decision of placenta removal were the greatest challenges. Adequate personnel including anesthesia, pediatricians, and general surgeons may be necessary for a successful management of abdominal pregnancy.

References:

- Martin JN Jr, Sessums JK, Martin RW, Pryor JA, Morrison JC. Abdominal pregnancy: current concepts of management. *Obstet Gynecol.* 1988; 71 (4): 549-57.
- Morita Y1, Tsutsumi O, Kuramochi K, Momoeda M, Yoshikawa H, Taketani Y. Successful laparoscopic management of primary abdominal pregnancy. *Hum Reprod.* 1996; 11 (11): 2546-7.
- Baffoe P, Fofie C, Gandau BN. Term abdominal pregnancy with healthy newborn: a case report. *Ghana Med J.* 2011; 45 (2): 81-3.
- Nwobodo EI. Abdominal Pregnancy. A Case Report. *Ann Afr Med.* 2004; 3 (4): 195-6.
- Hailu FG, Yihunie GT, Essa AA, Tsega WK. Advanced abdominal pregnancy, with live fetus and severe preeclampsia, case report. *BMC Pregnancy Childbirth.* 2017; 17 (1): 243.
- Binder DS. Thirteen-week abdominal pregnancy after hysterectomy. *J Emerg Med.* 2003; 25 (2): 159-61.
- Fader AN, Mansuria S, Guido RS, Wiesenfeld HC. A 14-week abdominal pregnancy after total abdominal hysterectomy. *Obstet Gynecol.* 2007; 109 (2 Pt2): 519-21.
- Varma R, Mascarenhas L, James D. Successful outcome of advanced abdominal pregnancy with exclusive omental insertion. *Ultrasound Obstet Gynecol.* 2003; 21 (2): 192-4.
- 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.
- Lamina MA, Akinyemi BO, Fakoya TA, Shorunmu TO, Oladapo OT. Abdominal pregnancy: a cause of failed induction of labour. *Niger J Med.* 2005; 14 (2): 213-7.
- Scheiber MD, Cedars MI. Successful non-surgical management of a heterotopic abdominal pregnancy following embryo transfer with cryopreserved-thawed embryos. *Hum Reprod.* 1999; 14 (5): 1375-7.
- Zvandasara P. Advanced extrauterine pregnancy. *Cent Afr J Med.* 1995; 41 (1): 28-34.
- Ikechebelu JI, Onwusulu DN, Chukwugbo CN. Term Abdominal Pregnancy misdiagnosed as Abruption Placenta. *Niger J Clin Pract.* 2005; 8 (1): 43-5.
- Jazayeri A, Davis TA, Contreras DN. Diagnosis and management of abdominal pregnancy: A case report. *J Reprod Med.* 2002; 47 (12): 1047-9.
- Hsieh CH, Hsu TY, Changchien CC. Abdominal pregnancy- report of two cases and review of literature. *Changcheng Yi Xue Za Zhi.* 1994; 17 (3): 268-75.
- Matovelo D, Ng'walida N. Hemoperitoneum in advanced abdominal pregnancy with a live baby: a case report. *BMC Res Notes.* 2014; 7: 106.
- Yeşilyurt H, Özyer Ş, Uzunlar Ö, Mollamahmutoğlu L. Abdominal pregnancy after hysterectomy: a rare cause of hemoperitoneum. *J Emerg Med.* 2014; 47 (4): e99-e101.
- Lockhat F, Corr P, Ramphal S, Moodley J. The value of magnetic resonance imaging in the diagnosis and management of extra-uterine abdominal pregnancy. *Clin Radiol.* 2006; 61 (3): 264-9.
- Dover RW, Powell MC. Management of a primary abdominal pregnancy. *Am J Obstet Gynecol.* 1995; 172 (5): 1603-4.
- Gerli S, Rossetti D, Baiocchi G, Clerici G, Unfer V, Di Renzo GC. Early ultrasonographic diagnosis and laparoscopic treatment of abdominal pregnancy. *Eur J Obstet Gynecol Reprod Biol.* 2004; 113 (1): 103-5.
- Beddock R, Naepels P, Gondry C, Besserve P, Camier B, Boulanger JC, et al. Diagnosis and current concepts of management of advanced abdominal pregnancy. *Gynecol Obstet Fertil.* 2004; 32 (1): 55-61.

22. Cardosi RJ, Nackley AC, Londono J, Hoffman MS. Embolization for advanced abdominal pregnancy with a retained placenta. A case report. *J Reprod Med.* 2002; 47 (10): 861-3.
23. Mitra AG, LeQuire MH. Minimally invasive management of 14.5-week abdominal pregnancy without laparotomy: A novel approach using percutaneous sonographically guided feticide and systemic methotrexate. *J Ultrasound Med.* 2003; 22 (7): 709-14.
24. Stevens CA. Malformations and deformations in abdominal pregnancy. *Am J Med Genet.* 1993; 47 (8): 1189-95.
25. Doubilet PM, Benson CB, Frates MC, Ginsburg E. Sonographically guided minimally invasive treatment of unusual ectopic pregnancies. *J Ultrasound Med.* 2004; 23 (3): 359-70.
26. Roberts RV, Dickinson JE, Leung Y, Charles AK. Advanced abdominal pregnancy: still an occurrence in modern medicine. *Aust N Z J Obstet Gynaecol.* 2005; 45 (6): 518-21.
27. Odom SR, Gemer M, Muyo AP. Lithopedion presenting as intra-abdominal abscess and fecal fistula: report of a case and review of the literature. *Am Surg.* 2006; 72 (1): 77-8.

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