

Advanced Abdominal Pregnancy-A Rare and Misdiagnosed Obstetric Situation!

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Abstract

Abdominal pregnancy is a rare form of ectopic pregnancy, its incidence about 1 in 10000 pregnancies. This condition often presents with vague clinical signs and symptoms and carries a high risk of maternal mortality and morbidity. Lack of standard diagnostic and treatment modalities makes advanced abdominal pregnancy an alarming and challenging situation. Recently a 28 years old primigravida patient presented at 36+6 weeks period of gestation with advanced abdominal pregnancy at Gynae B unit of Ayub teaching hospital Abbottabad, Pakistan. This rare case is reported to spotlight the importance of timely diagnosis and management of abdominal pregnancy.

Keywords: Ectopic Pregnancy; Abdominal Pregnancy

Introduction

Ectopic pregnancy is a pregnancy implanted outside uterus. Implantation sites may include fallopian tube, omentum, vital organs, large vessels, cul de sac, bowel, appendix, broad ligament, pelvic sidewall, peritoneum; spleen [1]. Abdominal pregnancy is a type of ectopic pregnancy in which the fetus is growing in the abdomen outside the uterus and not in the fallopian tube, ovaries or broad ligament [2]. The general rate of abdominal ectopic pregnancy is about 10.9 per 10000 live births, the incidence is found to be higher about 19% in non-industrialized countries due to reduce diagnostic options [1]. Abdominal pregnancy beyond 20 week of gestation with a live fetus or showing signs of have lived once and developed is termed as advanced abdominal pregnancy [3]. Extra uterine pregnancy beyond 20 week of gestation with a viable fetus is rare condition with estimated prevalence of one out of 8099 hospital deliveries [2,4]. It can have serious and life threatening complications both for mother and fetus. The commonest risk factors for ectopic pregnancy are pelvic inflammatory disease (PID), distorted Tubes, endometriosis, surgery on a tube, tubal ligation, Adhesions from prior surgery, history of infertility, earlier ectopic Pregnancy, intrauterine device (IUD) use, increasing Maternal age and smoking [5,6]. Early diagnosis of abdominal pregnancy is difficult and is missed in about ¼ of the reported cases [2,7]. A high index of suspicion is therefore needed to make the accurate diagnosis so that maternal mortality and morbidity can be reduced.

Case presentation

A 28 years old primigravida from Mansehra Khyber pakhtunkhwa Pakistan admitted at Gynae B ward of Ayub teaching hospital with chief complaints of gestational amenorrhea 36+3 weeks and absent fetal movements from 2 weeks. She is married for 1 year, her last menstrual period was 28/10/2017, she is sure of dates, EDD calculated was 4 august 2018, and POG was 36+3 weeks. She conceived spontaneously, pregnancy confirmed by urine pregnancy test, followed by an ultrasound in first trimester on which the diagnosis of abdominal pregnancy was missed. History of dysuria and lower abdominal pain present throughout pregnancy. No history of PV bleeding, discharge or leaking present throughout pregnancy. Patient also reports laparotomy done 4 years ago for removal of right ovarian cyst plus salpingectomy of the same side. On per abdomen examination fundal height was 32 weeks, fetal heart absent; there was an appendectomy and laparotomy scar present in lower abdomen. Per vaginal examination was unremarkable. We requested an expert obstetric scan for fetal wellbeing, findings of which are as follows:-Single fetus having no cardiac activity. No definite uterine wall around the fetus. Uterus separately seen measuring 10.8cm into 5cm.endometrium 7mm.amniotic fluid was scanty; placenta was lying in left maternal flank and has parietal attachment. Fetus was dead with

Spalding sign positive. BPD was 7.3cms corresponding to gestational age of 29 weeks 4 days. Head circumference was 27cms corresponding to gestational age of 29weeks 5 days (Figure 1).



Figure 1: Head circumference 27cms at gestational age of 29 weeks 5 days

Routine biochemistry of the patient was performed the results of which are: Hb: 12.3g/dl (11.5-17.5 normal range) WBC: 15.9 ($4-11 \times 10^6$). Hepatitis B and C screening of patient was negative. LFTS, RFTS and clotting profile of the patient was within normal limits. A laparotomy followed by removal of abdominal ectopic pregnancy was performed on 10 July 2018; procedure was done under spinal anesthesia. Operative findings are: Abdominal pregnancy of about 30 weeks size bilateral tubes and ovaries could not be identified due to dense adhesions, placenta attached to mesentery of peritoneum. Bladder also adherent to ectopic anteriorly for which Adhesiolysis was done. Whole of the baby along with placenta was delivered (Figure 2). Placenta was removed in piecemeal. Hemostasis was secured in placental bed. Drainage tube was kept in. About 500cc of the serous fluid was collected in drainage tube in 1st three post-operative days and then it remained empty. Patient was kept on intravenous antibiotics for 5 days. Beta HCG was done on 4th post op day and it was 9.40mIU/ml (declining and not corresponding to pregnancy levels) strict post-operative monitoring was done, patient remained stable throughout in post-operative period and was discharged on 7th post-operative day.



Figure 2: Abdominal Pregnancy of about 30 Weeks

Discussion

Advanced abdominal pregnancy is a rare obstetric complication with high maternal and perinatal mortality and morbidity, review of Cases from 2008 to 2013 showed that 38 cases of an advanced abdominal pregnancy resulting in a live birth were identified from 16 Countries [4]. The median gestation at delivery was 33-39 weeks. In 18 cases the diagnosis of AAP was made before delivery, in 15 cases the diagnosis was not made before delivery and in 5 cases it was not mentioned or unclear if the diagnosis was made before delivery. The diagnosis of advanced abdominal pregnancy needs high index of suspicion, despite the advancements in imaging techniques and ultrasonography most of the intra-abdominal pregnancies continue to be missed, as was with our case. Abdominal extra uterine pregnancy poses a diagnostic challenge with an ultrasound accuracy of 50 percent following strict criteria even in patients who have been booked for antenatal care [8]. The diagnostic value of ultrasound alone is limited. With 9 cases of abdominal pregnancies lock hat *et al.*, confirmed the value of MRI in the diagnosis of abdominal pregnancy [10]. Although sonography is the most effective method for diagnosing an abdominal pregnancy, MRI is an emerging important, complementary imaging modality that helps not only to confirm the diagnosis but also to delineate the precise anatomical relationship between the fetus, placenta and various maternal abdominal organs and tissues [6,9]. Allibone GW *et al* described major criteria for sonographic diagnosis of intra-abdominal pregnancy [7]. These include demonstration of fetus in a gestational sac outside the uterus, or the depiction of an abdominal or pelvic mass identifiable as the uterus separate from the fetus, failure to see a uterine wall between the fetus and the urinary bladder, recognition of close approximation of the fetus to the maternal abdominal wall and localization of the placenta outside the confines of the uterine cavity [7,9]. All these diagnostic features were present in our case. CT and MRI both are useful for confirming the diagnosis, distinguishing anatomic relationships and potential vascular connections, and assessing placental adherence [3]. Literature also favors a diagnostic laparoscopy for diagnosis whenever in doubt. Advanced abdominal pregnancy presents with vague signs and symptoms, but these clues should be kept in mind while making a diagnosis, history of bleeding or excessive abdominal pain throughout pregnancy, history of abortion or previous pelvic surgery, bleeding or abdominal pain during third trimester, maternal declaration of cessation fetal movements, abnormal fetal lie, displaced cervix or abdominal mass palpated apart from fetus, unusual echogenic appearance of placenta and failed induction [10]. Among these abdominal pain, history of previous pelvic surgery and cessation of fetal movements were the symptoms experienced by our patient. Abdominal pregnancy is mostly diagnosed mostly in late stages and can lead to grievous complications that's why maternal mortality and morbidity is elevated in abdominal pregnancy, maternal mortality in abdominal pregnancy varies from 0.5 percent to 20 percent about 90 times the rate of maternal mortality associated with normal delivery in united states [1]. Maternal morbidity can also be significant with high incidence of pelvic abscess, peritonitis and sepsis caused by substantial placental remnants. Fetal mortality is also high ranging from 75 percent to 90 percent of reported cases [10]. Early diagnosis and management of abdominal pregnancy is important as life threatening hemorrhages can result due to separation of placenta. There are a number of treatment options available and the traditional method is to retain placenta insitu to undergo spontaneous resorption followed by methotrexate therapy to enhance the process of desertion. Although leaving placenta insitu would minimize the risk of hemorrhages, this leads to increase risk of necrosis, pelvic abscess, wound dehiscence, intestinal or ureteral obstruction, fistula formation involving abdominal organs [11,12]. The placenta left insitu may take years to be absorbed but Bhcg takes a few months to decline. The decision whether to remove the placenta or leave it in situ is considered on a case after careful assessment of its implantation site. Removal of placenta although associated with higher blood loss, proves to have better maternal outcome in some well selected cases. Regard to current case placenta was removed successfully with no post-operative complications. Maternal deaths in abdominal pregnancies are usually due to uncontrollable hemorrhages and have been reported in about 20 percent of cases [3]. In our case the mother did not had massive bleeding and the removal of placenta was relatively easy. Perinatal mortality in abdominal pregnancy is as high as 40-95 percent and congenital malformations are reported in about 21.4 percent cases [3].

Conclusion

Although abdominal pregnancy is rare, still risk is rising for maternal and perinatal mortality when compared to other forms of ectopic or intrauterine pregnancies. Diagnosis could be easily missed in some cases where standard diagnostic modalities are not available, Therefore lead to serious complication afterward. Early diagnosis and proper management would help in enhancing the outcome and reducing morbidity and mortality.

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