

Full-term live abdominal pregnancy: A rare case from rural Nepal

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Abstract

A 32 years old female presented to emergency with abdominal pain was planned for cesarean section due to transverse positioning of the baby. A 3600 gm baby was delivered via cesarean section with a normal heart rate and no congenital anomaly. The placenta was attached to the large bowel, omentum, and left cornual region of the uterus. The placenta was detached and hemostasis was secured with suturing. Uterus, bilateral ovaries, and right fallopian tube were preserved while left salpingectomy was done. Life-threatening bleeding can be a serious negative outcome of abdominal pregnancy. It is of utmost importance to diagnose abdominal pregnancy as early as possible.

Keywords

Abdominal pregnancy; Term newborn; Caesarean section (CS).

Introduction

The incidence of ectopic pregnancy ranges from 1 to 2% in the USA and death due to rupture of ectopic pregnancy is 2.7% of pregnancy-related death [11]. Approximately 50% of ectopic pregnancies are missed at the time of initial presentation. Abdominal pregnancy is potentially life-threatening, with maternal and perinatal mortality rates of 2% to 30% and 40%-95%, respectively [12].

The incidence of abdominal pregnancy is high in developing countries, presumably because of the lack of human resources and diagnostic facilities and poor utilization of medical care by pregnant women.

Abdominal pregnancy (AP) is an outcome of rupture of tubal or ovarian pregnancy or with implantation of an embryo in the peritoneal cavity [6]. The common location of implantation in AP is Pouch of Douglas (POD) followed by mesosalpinx and omentum. However, the implantation can take place on the

spleen, liver, and appendix [14]. There is a major risk of massive hemorrhage with abdominal pregnancy. The maternal mortality rate is 7.7 times higher than other locations and 90 times higher with intrauterine pregnancy [15].

Diagnosis and management are challenging especially in low-resource centers and remote areas with a lack of ultrasonography and poor operation setup. We present a case of abdominal pregnancy that resulted in a live healthy newborn.

Case Presentation

A 32-year-old, female, Gravida 3 Para 1 Abortion 1, with amenorrhea for 9 months, was presented in the emergency at the district hospital of Kalikot from the rural part of Nepal. She had constipation and abdominal pain on and off since 12 weeks of gestation. She had one ANC checkup in the health post and was prescribed Iron and Calcium. Ultrasonography was not done due to its unavailability. On examination vitals were stable. The uterus was palpable above the umbilicus. On the Leopold maneuvers, the baby head was palpable on the right side of the mother's abdomen and baby parts were easily palpable. Fetal Heart rate ranged from 140-150 beats per minute. Per vaginal examination showed a multiparous cervix without per vaginal bleeding. With the diagnosis of advanced ectopic pregnancy, ultrasonography was done. USG showed a single live fetus outside the uterus and the uterine cavity was empty. Investigations revealed hemoglobin of 9.6gm% and her blood group - AB positive. Other investigations like renal function tests, liver function tests, urine routine, and random blood sugar were normal. With the diagnosis of abdominal pregnancy, an emergency cesarean Section with hysterectomy was planned.

Per-operative findings revealed abdominal pregnancy with a single live female baby weighing 3600 grams. The placenta was attached to segments of the large bowel, omentum, and left cornual region of the uterus with a normal-sized uterus without uteroperitoneal fistula. The left tube was not visible. The uterus, right tube, and both ovaries were normal. Other abdominal organs were normal. There was significant bleeding from the portion of the placenta detached from the uterus which prompted the removal of the placenta and securing hemostasis. The left side of the fallopian tube and peritoneum were resected to secure hemostasis. The total estimated per-operative bleeding was approximately 1 liter. There was a false knot in the umbilicus with a single umbilical artery. The general checkup of the baby was normal without any congenital abnormalities. The patient and the baby progressed well and were discharged on the 7th postoperative day.

Discussion

Implantation of a fetus outside the endometrial cavity is known as ectopic pregnancy. The most common site for attachment of fetus is the ampulla of the fallopian tube (75%) and 4.5% are extra tubal. The risk factors for ectopic pregnancy are infection, tubal surgery, age, prior history of spontaneous abortion as well as induced abortion, prior use of the intrauterine device, and history of infertility [1]. Abdominal pregnancy is rare among ectopic with an incidence of 1: 10,000 to 1: 30,000 which comprises 1.4% of total ectopic pregnancy [2,3]. Dilation and curettage is still the standard practice for abortion in the rural areas of Nepal. This might be the risk factor in our case for the cause of ectopic pregnancy.

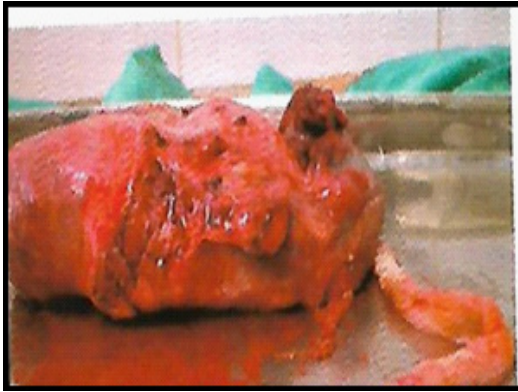


Figure 1: Extensively Adherent placenta to Left Cornual Region



Figure 2: False Knot with single Umbilical Artery

A fetus that has progressed beyond 20 weeks in the maternal abdominal cavity or showing signs of being developed in the abdominal cavity is defined as advanced abdominal pregnancy [4]. There are 38 cases of live abdominal pregnancy reported from 2008 to 2013 [5].

There are two types of abdominal pregnancy. Primary abdominal pregnancy (PAP) results from implantation of a fertilized ovum outside the uterus directly in the peritoneal cavity whereas more common, secondary abdominal pregnancy results from the rupture of the fallopian tube, ovarian or intrauterine pregnancy that subsequently results in peritoneal attachment [6]. Studdiford, in 1942, established criteria for diagnosis of Primary Peritoneal Pregnancy which includes; the presence of normal bilateral tubes and ovaries, without any evidence of a uteroperitoneal fistula and the presence of pregnancy-related solely to the peritoneal surface that is early enough to eliminate the possibility of secondary implantation after primary tubal nidation [16].

Since, in our case, the left fallopian tube was not visible and there was no per vaginal bleeding, the case does not meet all Studdiford's criteria for primary abdominal pregnancy. Also, in our case, inability to establish diagnosis early, due to late presentation of the patient, lack of collection in the pouch of Douglas (POD) as well as unable to identify uteroplacental fistula, we can neither categorize it as the secondary abdominal pregnancy.

Ultrasonography is an investigation of choice in case of ectopic pregnancy. Gestational sac outside the uterus, fetal mass identified and separated from uterus, failure to identify the uterine wall between fetus and bladder; a close approximation of fetus to maternal abdomen and placenta identified outside the uterus, are few ultrasonographic features of abdominal pregnancy. When it is difficult to identify a fetus using USG, MRI is considered a choice of diagnosis. The real challenge in the diagnosis is made by fibroids, anhydramnios, and false reassurance from previous scan reporting [8]. The partial attachment to the omentum signifies poor fetal outcome and often diagnostic dilemma using ultrasonography [7]. In our case, even though there was a partial attachment with omentum, the outcome of the baby was surprisingly normal.

The treatment of ruptured ectopic pregnancy is laparotomy. The major complication is bleeding during the separation of the placenta from the attached site. Thus, it is highly recommended to leave the



Figure 3: Outcome: Healthy Baby with parents.

placenta in situ and monitor the human chorionic gonadotropin level. In our case, there was bleeding from the detached site of the placenta, and to secure hemostasis, the placenta was removed and multiple hemostatic suturing was done without hysterectomy [9,10].

In the case of abdominal pregnancy, it is very rare for newborns to be born healthy, without any congenital malformations. It is reported to be up to 40% out of which only 50% baby survive up to one-week post-delivery [10].

Although abdominal pregnancy is rare, awareness of this condition is very important to reduce the associated morbidity and mortality by making the correct diagnosis.

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