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Term Abdominal Pregnancy with Live Baby; Case Report from St Padre Pio Hospital Akwa Nord Douala (August 2024)

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Abstract

In this report, we present a case of a term abdominal pregnancy managed in St Padre Pio Hospital Douala (Cameroon). The 28-year-old G_2P_{1001} woman whom we received to our facility at 15 weeks gestation with an intrauterine pregnancy confirmed by ultrasonography. She returned at 21 weeks with a history of syncope and blood transfusion in another facility. An obstetrical ultrasonography done that day revealed a live fetus located at the upper right side within the peritoneal cavity. She continued with her routine Antenatal visits, and at each visit, an ultrasonography was done, revealing a slowly growing fetus. At 38 weeks, a laparotomy was carried out, and the live male baby weighing 2500 grammes was extracted. The placenta was implanted in the uterus; it was removed with minimal blood loss of approximately 400 mls. The mother was heamodynamically stable post-operatively. The newborn presented with mild cyanosis, an oxygen saturation of 80%, which resolved after 24 hours of oxygen administration. Both mother and baby were discharged from the hospital one week after laparotomy in a stable state. This case illustrates that intra-abdominal pregnancies, though rare and complex, can be managed to term and produce viable fetuses. Practitioners should, therefore, understand the challenges in its management.

Keywords

Abdominal Pregnancy, Ectopic Pregnancy, Term Live Baby, Ultrasonography

1. Introduction

Abdominal pregnancy is a rare form of ectopic pregnancy with very high morbidity and mortality for both the mother and the foetus. Ectopic pregnancy represents about 1% - 2% of all pregnancies, with 95% occurring in the fallopian tube. Cornual pregnancy is a form of ectopic pregnancy occurring in the uterine horn with an incidence below 2%. Abdominal pregnancies represent just about 1% of ectopic pregnancies [1]. The incidence of abdominal pregnancy differs in various publications and ranges between 1:10,000 pregnancies and 1:30,000 pregnancies [1] [2]. It was reported for the first time in 1708 as an autopsy finding, and numerous cases have been reported worldwide ever since [3]. An abdominal pregnancy is the only type of ectopic pregnancy that can advance beyond 20 weeks of gestational age [4]. It can be classified as primary and secondary. If the fertilization and implantation are in the peritoneal cavity from the outset, it is called a primary abdominal pregnancy, while if the abdominal pregnancy happened after tubal rupture or abortion or uterine rupture with secondary implantation over the peritoneum it is called a secondary type [5]-[7].

The diagnosis of an abdominal pregnancy is made with a high index of suspicion since they have only vague, nonspecific symptoms and are often missed by imaging [5]. Though, with ultrasound, there is a high possibility of missing an abdominal pregnancy, it is the first-line diagnostic modality for abdominal pregnancy [3]. There are few reported cases of abdominal pregnancy developing to term with the delivery of a live fetus through an abdominal incision [8]. This is often associated with a significant risk of maternal intraperitoneal hemorrhage from placental separation and adverse consequences. The overall fetal survival rate remains low [9].

Maternal mortality and morbidity are also very high, especially if the condition is not diagnosed and managed appropriately. These pregnancies generally do not get to 37 weeks (term gestation), and usually, the end result is the extraction of a dead fetus. Another challenge for babies from abdominal pregnancy is the very high incidence of congenital malformations [1].

Treatment of an abdominal pregnancy depends on gestational age, location of the implantation, placental attachment, and hemodynamic stability of the patient [5] [6].

2. Case Report

A 28-year-old apparently normal Gravida 2 Para 1 female was received at St Padre Pio Hospital for Antenatal clinic with a history of amennorhea. An Echography done that day showed a live intrauterine pregnancy at 15 weeks of gestation (**Figure 1**). Subsequently, at 21 weeks of gestation, she returned to our institution with a history of 1500 mls of blood transfusion in another health facility due to a sudden onset of syncope and a heamogloblin level of 5 g/dl. On that day, she appeared fatigued, with a heamoglobin level of 8.9 g/dl. She was prescribed some blood

tonics. The foetal heart rate that day could not be perceived with a Doppler. The echography showed an empty uterine cavity with all signs/symptoms of pregnancy still present. She came back again at 25 weeks of gestation, and after searching for the foetal heart rate for a long time, the gynaecoloist discovered an empty uterus (Figure 2) with the foetus lying below the liver. She continued with her routine follow-up, and at each visit, the echography revealed a viable fetus below the liver growing slowly and no amniotic pouch and fluid. The lady had a lot of abdominal discomfort and feeding difficulties as the pregnancy advanced, which were challenging for the pregnant woman but bearable.

Figure 1. Intrauterine at 15 weeks.

Figure 2. Empty uterus at 25 weeks.

At 38 weeks of gestation, surgery was carried out.

Intraoperatively—After a midline incision under spinal anaesthesia, a male fetus was found free in the peritoneal cavity (Figure 3) APGAR 7, 8, 9, with a weight

of 2500 g, head circumference 31 cm, length 46 cm, chest circumference 30 cm and Arm circumference 10 cm. 15 minutes post-delivery, there was peripheral cyanosis, with an oxygen saturation of 80%. The neonate was resuscitated and sent to neonatology for intensive care management (Figure 4). The neonate was on Oxygen for 24 hours at 2l/mins, after which the SPO_2 was stable at 100%.

Figure 3. Extraction of a life fetus from the peritoneum.

Figure 4. Neonate in the neonatology.

The placenta was located in the right cornua of the uterus (Figure 5), suggestive of a cornual pregnancy that ruptured, causing the fetus to move into the peritoneal cavity. The omentum had perforations in some areas, and part of the right fallopian tube was injured. A right cornual resection was done, as well as part of the proximal fallopian tube, and the perforations of the omentum were repaired by the gynecologists and surgeon involved in the surgery with a blood loss of about 400 mls (Figure 6). The lady was transfused with 500 ml of whole blood.

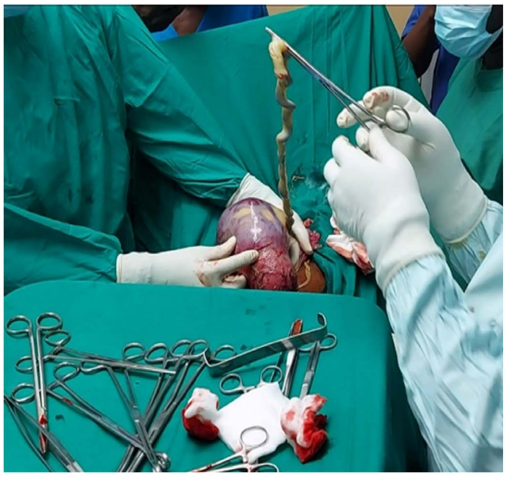

Figure 5. Placenta in the uterus.

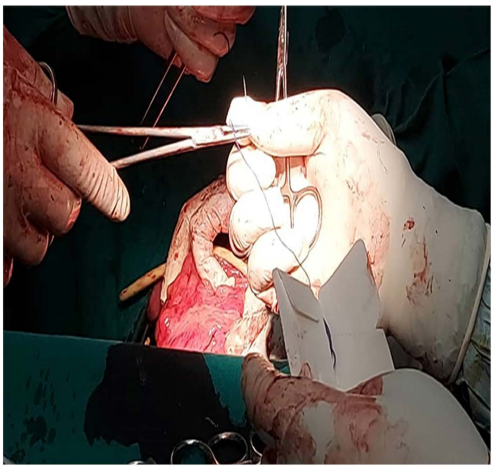

Figure 6. Repair of uterus with all precautions to prevent hemorrhage.

The mother and the baby were stable at hospitalization. No visible sign of malformation on the baby (Figure 7 and Figure 8).

Figure 7. Neonate at day 7 of life.

Figure 8. Mother and baby on day 8 are doing well and ready for discharge.

3. Discussion

Advanced abdominal pregnancy is extremely rare. In a review at the Komfo Anokye Teaching Hospital, Opare-Addo *et al.* reported an incidence of 1:1320 deliveries [9] whilst Amirtha *et al.* cited 1:25000 deliveries [10]. Most of the cases of abdominal pregnancies are secondary to aborted or ruptured tubal pregnancy. In this case, it was obvious that the abdominal implantation was secondary to undiagnosed ruptured left cornual ectopic pregnancy [10]. It is widely accepted that obstetrical ultrasonography is the cornerstone for the diagnosis of abdominal pregnancy.

As presented in this case, an ultrasound scan is useful to reach an early diagnosis in addition to clinical suspicion [11]. However, it may not accurately diagnose late gestational abdominal pregnancy [12]. Magnetic resonance imaging and computed tomography scans may be indicated to diagnose late abdominal pregnancies [13].

The ultrasound features of abdominal pregnancy include A: An absence of myometrial tissue between the maternal bladder and the pregnancy, abdominal wall and pregnancy; B: An empty uterus (**Figure 2**); C: Poor definition of the placenta; D: Oligohydramnios; E: Unusual fetal lie [14]. In our case, the ultrasound findings are similar to the ones indicated above.

This case may be considered secondary abdominal pregnancy because the presentation did not meet Studdiford's criteria [15]. Although the diagnosis was made early, and there was no evidence of uteroperitoneal fistula, the placenta was implanted in the uterus and the fetus in the peritoneal cavity.

Abdominal pregnancy is often associated with congenital malformations in about 40% of cases [16]. Fifty percent of perinatal mortality rates have been reported among fetuses delivered with congenital anomaly [17] [18].

In the case presented above, there was no visible structural abnormality in the baby (**Figures 7-9**). The vital signs were within normal range, the cardiac ultrasound

done was normal, and the neonate fed well. The neonate was discharged one week after intensive care and follow-up in the neonatology unit.

The management of abdominal pregnancy depends on the estimated gestational age at presentation and the clinical presentation [18]. Non-viable gestations require immediate laparotomy, irrespective of the clinical status. However, for asymptomatic viable pregnancy, hospital-based conservative management is advocated till lung maturity is achieved. As presented in this case, symptoms such as bleeding per vaginam, generalized abdominal pain, evidence of hemoperitoneum, and worsening vital signs requiring urgent operative intervention [17] [18] were not observed. The patient in question had generalized abdominal pain and an inability to feed well, which were bearable. The most serious complication of abdominal pregnancy is bleeding from the placental site. In this case, the placenta was mainly attached to the uterus, with the umbilical cord connecting the baby to the peritoneal cavity (**Figure 5**). However, because of the torrential hemorrhage that could accompany the placenta removal, a tourniquet was applied at the lower segment of the uterus before placenta removal (**Figure 6**). This greatly minimized blood flow associated with placenta removal. Blood loss was approximately 400mls, and she was transfused with 500mls of blood. The lady was heamodynamically stable and discharged one week after hospitalization.

Figure 9. Baby at 2 weeks of life.

Despite the good outcome of this case, it is important to appreciate the fact that advanced abdominal pregnancy could potentially lead to devastating consequences.

4. Conclusion

Term abdominal pregnancy is a rare but life-threatening ectopic pregnancy that

needs a high index of suspicion for diagnosis. A good plan and adequate preparation for surgery are very important to prevent maternal and fetal death.

Patient Consent

Informed consent was obtained from the couple for all case details and images published. Institutional approval was required for the publication of this case report.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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