

Unusual cause of abdominal pain in the second trimester in a primigravida: case report

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Abstract

A 26-year-old primigravida, at 22 weeks gestation by dates, was admitted to our institution after having presented with a two-day history of abdominal pain and vaginal spotting. An abdominal ultrasound revealed an abdominal pregnancy with fetal demise at 20 weeks and an empty uterus. Intra-operatively, the placenta was noted to adhere to the posterior wall of the bladder and the fundus of the uterus. A macerated stillbirth with missing limbs was removed and the placenta left in place. The patient improved post-operatively and was later discharged, follow up serum B-HCG were noted to decline. We report this case since ectopic pregnancies are more common now, and therefore we need to highlight the importance of early scans to confirm viability and site of conceptus implantation.

Key words: Abdominal pregnancy, Macerated, Abdominal pain

Introduction

Abdominal pregnancy refers to a pregnancy that has implanted in the peritoneal cavity, external to the uterine cavity and fallopian tubes. The estimated incidence is 1 per 10,000 births and 1.4% of ectopic pregnancies. There are reports of abdominal pregnancy occurring after hysterectomy (1). Potential sites include the omentum, pelvic sidewall, broad ligament, posterior cul-de-sac, abdominal organs like the spleen, bowel, liver, large pelvic vessels, diaphragm, and the uterine serosa. Abdominal ectopic pregnancies account for 1-4% of all ectopic pregnancies (2). Risk of dying from an abdominal pregnancy is about 9% higher than tubal pregnancy and 90% higher than intrauterine pregnancy.

Ultrasonography remains the best tool used to localize an abdominal pregnancy though MRI scan has been used lately because it provides better location as well as the placental attachment (2). About 20% of babies born after an extra uterine abdominal pregnancy have birth defects, presumably due to compression of the fetus in the absence of the amniotic fluid buffer. Common deformities include limb defects, facial and cranial asymmetry, joint abnormalities and central nervous system malformation.

When detected early, termination is recommended, however when detected in the third trimester, conservative management is done to optimize fetal survival which includes inpatient care until delivery, serial sonography to ensure adequate fetal growth and liquor volume and steroids for fetal lung maturity. Delivery is by elective laparotomy at a gestational age as close as possible to term. The management of the placenta at the time of laparotomy is of importance.

It is recommended that the placenta be removed only if its entire blood supply can be ligated and that partial removal of the placenta is most hazardous and should not be undertaken (4). The use of methotrexate is being discouraged since it causes fast placental dissolution as well the side effects though many centers still use it. We report an unusual case that presented in the 2nd trimester with a markedly macerated fetus.

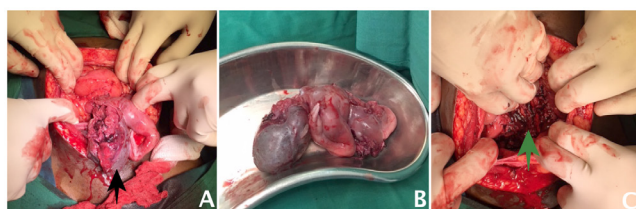
Case report

A 26 year old primigravida was admitted to our institution after having been referred from a local health center where she had presented with a 2-day history of abdominal pain, a report of vaginal discharge as well as vaginal bleeding. The abdominal pain was mainly localized in the suprapubic region, non-radiating and progressively became worse. She did not have urinary or bowel symptoms related to micturition. Examination on the day of admission revealed that, her vital signs were within the normal ranges and had a fundal height of 22 weeks with some mild suprapubic tenderness. Sterile speculum examination revealed normal external genitalia, centrally located cervix with a closed external os with cervicitis and no show or amniotic fluid leakage.

An abdomino-pelvic ultrasound was done and it showed an extrauterine, intra-abdominal fetal demise at 21 weeks with an empty uterus. The placenta was located in the left upper quadrant and the fetal parts at the right lower quadrant. Laboratory tests done including a complete blood count, coagulation profile and renal function tests were all normal. The patient underwent an explorative laparotomy.

Intra-operatively a macerated fetus was found, with the fetal head partially collapsed and both lower limbs had undergone necrosis and were therefore missing (Figures 1A and B). The left upper limb was separated from the rest of the body. The placenta was found to be adherent to the small gut, posterior wall of the bladder and to the fundus of the uterus. It was friable but not actively bleeding (Figure 1C). There was no umbilical cord, most likely had undergone necrosis. Oozing sites were covered with surgical and placenta left *in situ*, abdomen was then closed and patient reversed well. Postoperatively the patient had a repeat abdominal scan that reported the placenta that had been left, no report of fetal bones. The patient had a remarkable improvement and was discharged on the 5th postoperative day. Follow up beta HCG two days after surgery was 82.43mIU/mL and two weeks later was 0.923mIU/mL.

Figures 1A and B: Intraoperative findings of the patient, note that A shows a macerated still birth (MSB) (black arrow), within the abdomen after the peritoneal cavity was accessed, B shows the MSB with missing limbs, in C, the friable placenta (green arrow) that was left in place within the abdominal cavity covering intestine, bladder and uterus which are not visible



Discussion

Abdominal ectopic pregnancy can either be primary or secondary. Primary abdominal ectopic pregnancy occurs when the fertilized ovum implants directly into the peritoneal cavity while secondary occurs when the fertilized ovum first implants in the fallopian tube or uterus, then due to fimbriae abortion or rupture of the fallopian tube or uterus the fetus comes to live and develops in the mother's abdominal cavity. Primary abdominal ectopic pregnancy must meet 3 criterias that include: both tubes and ovaries must be normal in morphology and location, no utero-peritoneal fistula and the pregnancy must be related to the peritoneum in entirety (5). In our case it was difficult to assess tubes and ovaries as well as the uterus since the placenta was lying above the fundus and any attempt to maneuver through posed a risk of hemorrhage. The placenta was

therefore left undisturbed. The latter is more common.

Abdominal pregnancy occurs very rarely and is very difficult to diagnose. It is important to acknowledge that an abdominal pregnancy can be diagnosed even in old age, as a calcification that may eventually cause gastro-intestinal symptoms. A high index of suspicion is therefore important. The triad of symptoms includes amenorrhea, abdominal pain and vaginal bleeding. Other symptoms may include nausea, painful fetal movements, flu-like symptoms, dizziness and syncope. Early onset of unusual abdominal pains in pregnancy should be investigated well. Ultrasonography in experienced hands has very high sensitivity and specificity as a diagnostic tool and continues to play a significant monitoring role in the pre-operative and post-operative periods since the clinical symptoms and signs are non-specific.

Conclusion

Abdominal pregnancies have a high mortality and mortality to both the fetus and the mother. There is a significant risk of maternal intra-peritoneal hemorrhage with fatal consequences. The overall fetal survival rate remains low. High index of suspicion is paramount in as much it is a rare occurrence in general populations. Multidisciplinary care involving sonographer, hematologists, interventional radiologist, general surgeons and obstetricians is a great value.

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