

CASE REPORT

OPEN ACCESS

Advanced live intra-abdominal pregnancy with good fetomaternal outcome: A case report

Ritu Sharma, Manju Puri, Monika Madan, SS Trivedi

ABSTRACT

Introduction: An incidence of abdominal pregnancy is 1 in 10,000 live births accounting for 1.4% of all ectopic pregnancies. Abdominal pregnancy occurs due to secondary implantation from an aborted tubal pregnancy or as a result of intra-abdominal fertilization. **Case Report:** This is a rare case report of a 20-year-old primigravida who presented to our hospital at 38 weeks of gestation with advanced live intra-abdominal pregnancy. After confirming the diagnosis, the patient was taken up for emergency laparotomy and a live baby was extracted. Mother and baby were discharged in good health without any perioperative complications. **Conclusion:** The management of advanced abdominal pregnancy remains controversial. Diagnosis and management of advanced abdominal pregnancy is still a challenge to today's medical world. But high index of suspicion aided with imaging studies can help in timely diagnosis of this rare

obstetrical occurrence thereby preventing the associated life-threatening complications.

Keywords: Abdominal pregnancy, Advanced abdominal pregnancy, Ectopic pregnancy

Sharma R, Puri M, Madan M, Trivedi SS. Advanced live intra-abdominal pregnancy with good fetomaternal outcome: A case report. International Journal of Case Reports and Images 2012;3(11):5–7.

doi:10.5348/ijcri-2012-11-209-CR-2

INTRODUCTION

Abdominal pregnancy, a rare form of ectopic pregnancy, results from implantation in peritoneal cavity exclusive of tubal, ovarian or intraligamentary implantation [1]. It occurs due to secondary implantation from an aborted tubal pregnancy or as a result of intra-abdominal fertilization. According to Centres for Disease Control and Prevention, the estimated incidence of abdominal pregnancy is 1 in 10,000 live births accounting for 1.4% of all ectopic pregnancies [2, 3]. Advanced abdominal pregnancy refers to a situation where the pregnancy continues beyond 20 weeks with a fetus living, or showing signs of having once lived and developed, in mother's abdominal cavity [4]. Despite the availability of medical health facilities worldwide, the cases of advanced abdominal pregnancy associated with high fetomaternal morbidity and mortality are still encountered. Estimated maternal mortality rate is 5 per 1000 cases, about seven to eight times the mortality rate for ectopic in general [2]. The most important causes of maternal death are hemorrhagic shock, pulmonary embolism, coagulopathy, infection and bowel obstruction [5]. In a

Ritu Sharma¹, Manju Puri², Monika Madan³, SS Trivedi⁴
Affiliations: ¹Research Associate, Department of Obs & Gynae, Lady Hardinge Medical College, New Delhi, India; ²Professor, Department of Obs & Gynae, Lady Hardinge Medical College, New Delhi, India; ³Ex Assist. Professor, Department of Obs & Gynae, Lady Hardinge Medical College, New Delhi, India; ⁴Professor and Head, Department of Obs & Gynae, Lady Hardinge Medical College, New Delhi, India
Corresponding Author: Dr Ritu Sharma, Department of Obstetrics and Gynae, Lady Hardinge Medical College, Shaheed Bhagat Singh Marg, City New Delhi, Pin Code 110001, India, Ph: +919717001590; Email: drritu661@gmail.com

Received: 02 March 2012
Accepted: 27 April 2012
Published: 01 November 2012

review, the survival of infants born after 30 weeks was found to be 63% [6] with 20–40% [6, 7] incidence of birth defects due to compression because of the absence of amniotic fluid buffer. Limb deficiencies and central nervous system anomalies are most common malformations while facial or cranial asymmetries and joint abnormalities are most common deformations. The management of advanced abdominal pregnancy remains controversial.

CASE REPORT

A 20-year-old primigravida presented to emergency department of our hospital at 38 weeks of gestation with complaints of pain in her abdomen off and on and an ultrasound report showing an abdominal pregnancy of 33 weeks. Patient got her regular antenatal check-up at a remote area. She felt quickening at 16th week of gestation. During her antenatal period she had occasional episodes indigestion and dull pain in abdomen. She was admitted at 22nd week of pregnancy for pain in abdomen associated with difficulty in micturition and was managed conservatively. She underwent an abdominal ultrasound examination at 19th week of gestation which showed live intrauterine pregnancy with placenta covering the internal os. A repeat abdominal ultrasound examination was done at 37th week of gestation. During this examination, abdominal pregnancy was suspected and she was referred to a tertiary hospital. General physical examination and systemic examination other than abdominal examination were unremarkable. On clinical examination of abdomen, fundal height was 34 weeks with longitudinal lie and breech presentation. Fetal parts were palpable superficially. Pelvic grip was empty and fetal heart rate was 140/min and regular.

A repeat abdominal ultrasound examination was done in our hospital which showed empty uterus deviated to left side with a single live fetus seen outside uterine cavity in transverse lie with adequate amniotic fluid in the amniotic sac surrounding it. Placenta was lying next to uterus with marked increase in vascularity in it and adjacent myometrium. Patient's hemoglobin was 11 g/dL with normal liver and kidney function tests. Four units of packed red blood cells were kept cross matched. Patient was taken up for emergency exploratory laparotomy under general anaesthesia on the same day. Abdomen was opened by right para median vertical incision extending above umbilicus. Per operatively omentum was seen covering an amniotic sac. The membranes were thick and were ruptured. Meconium stained liquor was drained out. A live baby girl was extracted as breech (Figures 1 and 2). The cord was doubly clamped, cut and tied close to its placental attachment. Birth weight was 1.5 kg and Apgar score was 9 and 9 at 1 and 5 minutes respectively. The exploration of abdomen for exact placental localization was avoided as this could have incited torrential hemorrhage. Placenta was left undisturbed. Thorough saline wash was done. Abdomen was closed in layers.



Figure 1: Intact amniotic sac containing fetus in abdominal cavity.

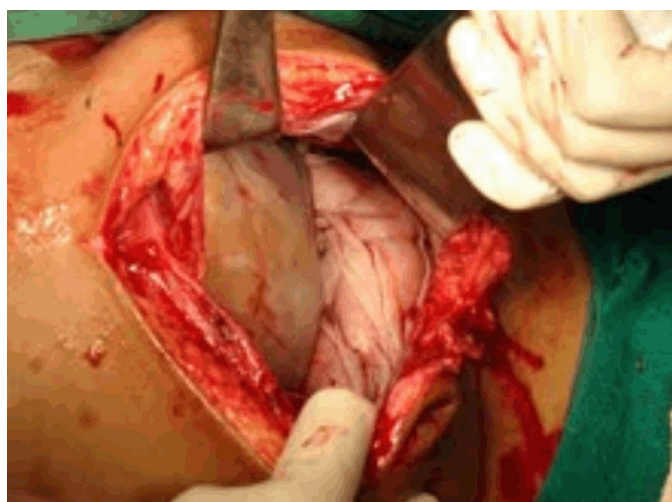


Figure 2: Membranes covering abdominal organs after extracting fetus.

The amount of surgical blood loss did not warrant any blood transfusion.

Patient stood the procedure well and remained hemodynamically stable. Her postoperative period was uneventful. Mother and baby were discharged in good health. Patient came for follow-up after one month with no fresh complaints. Abdominal ultrasound examination during follow-up visit showed involuting placental mass lying in the abdominal cavity surrounded by intestines. Postoperative counseling of the couple was done giving emphasis on contraception and need for early antenatal check ups in subsequent pregnancies.

DISCUSSION

Diagnosis and management of advanced abdominal pregnancy is still a challenge to today's medical world. But high index of suspicion aided with imaging studies can help in timely diagnosis of this rare obstetrical occurrence thereby preventing the associated life-

threatening complications. Patient may present with complaints of vaginal bleeding, persistent abdominal pain and painful fetal movements. On examination, there may be abnormal presentation, easily palpable fetal parts, uneffaced and displaced cervix and palpation of abdominal mass separate from uterus [8]. High index of suspicion is first step in the diagnosis. Increased maternal serum alpha fetoprotein levels add to the suspicion [4]. Ultrasonography and MRI are diagnostic modalities for confirmation of abdominal pregnancy [8]. Ultrasound will show empty uterus, absence of amniotic fluid between placenta and fetus, absence of myometrium between bladder and gestation and abnormal lie with fetal parts close to abdominal wall [4, 8, 9]. But sonographic diagnosis is missed in half of the cases [4]. Despite all, the diagnosis in most of the cases is made at time of surgery only.

Advanced abdominal pregnancy is difficult to manage. If the fetus is mature, immediate laparotomy is the definitive management but if fetus is immature and mother is in good health, one can opt for conservative management with strict surveillance giving mother's safety the primary importance. After delivering baby, the management of placenta is also controversial due to diffuse and unidentifiable blood supply of abnormally implanted placenta. Life-threatening hemorrhage during laparotomy is the main concern. If one cannot identify and ligate the vascular supply of placenta, it is preferable to leave it as such for natural regression [5] which can be monitored by β -hCG levels and ultrasonography—the process taking several months. Methotrexate administration can lead to massive necrosis and subsequent infection [5]. Angiographic embolisation can be used to block placental vessels [10].

CONCLUSION

It needs emphasis again that both obstetricians and radiologists should improve their skills further to diagnose these cases in time so that they do not reach to such an advanced stage where management itself becomes difficult.

Author Contributions

Ritu Sharma – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Manju Puri – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Monika Madan – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it

critically for important intellectual content, Final approval of the version to be published

SS Trivedi – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

Copyright

© Ritu Sharma et al. 2012; This article is distributed under the terms of Creative Commons Attribution 3.0 License which permits unrestricted use, distribution and reproduction in any means provided the original authors and original publisher are properly credited. (Please see www.ijcasereportsandimages.com/copyright-policy.php for more information.)

REFERENCES

1. Cunningham, Levono. William's Obstetrics. Twenty third edition, 2010; Ectopic pregnancy, chapter 10, p 249.
2. Atrash HK, Friede A, Hogue CJR. Abdominal pregnancy in United States: Frequency and Maternal Mortality. *Obstetrics Gynecology* March 1987;63(3):333–7.
3. Bouyer J, Coste J, Fernandez H, Pouly JL, Job-Spira N. Sites of ectopic pregnancy: a 10 year population based study of 1800 cases. *Human Reproduction* 2002;17:3224–30.
4. Worley KC, Hnat MD, Cunningham FG. Advanced extra-uterine pregnancy; diagnostic and therapeutic challenges. *Am J Obstet Gynecol* 2008 Mar;198(3):297.e1–7.
5. Jonathan S. Berek, MD, MMS. Early pregnancy loss and ectopic pregnancy. Berek and Novak's *Gynecology*, fifteenth edition 2012. Chapter 20;644:628.
6. Stevens CA. Malformations and deformations in abdominal pregnancy. *American Journal of medical genetics* 1993;47(8):1189–5.
7. Rahman MS, Al-Suleiman SA, Rahman J, Al-Sibai MH. Advanced abdominal pregnancy—observations in 10 cases. *Obstetrics Gynecology* 1982;59:366–72.
8. AY Isah, Y Ahmed, EL Newbode, BA Ekele. Abdominal pregnancy with a full term live fetus: case report. *Annals of African Medicine* 2008;4(7):198–9.
9. Bertrand G, Le Ray C, Simard-Emond L, Dubois J, Leduc L. Imaging in the management of abdominal pregnancy: A case report and review of literature. *J Obstet Gynaecol Can* 2009 Jan;31(1):57–62.
10. Cardosi RJ, Nackley AC, Londono J, Hoffman MS. Embolisation for advanced abdominal pregnancy with a retained placenta. A case report. *Reproductive medicine* 2002 Oct;47(10):861–3.