Jurnal Kedokteran Syiah Kuala
Edisi Khusus Oktober 2022

ISSN: 1412-1026
E-ISSN: 25500112

Abdominal pregnancy with healthy newborn: a rare incidence of ectopic pregnancy

[1]Cut Meurah Yeni, [2]Nurul Fikriani[1*]

[1] Department of Obstetrics and Gynecology, Faculty of Medicine, Syiah Kuala University
*Corresponding author e-mail: cutyeni65@gmail.com and nurulfikrianidr@gmail.com

Abstract. he incidence of abdominal pregnancy is 1% of all the ectopic pregnancies. Abdominal pregnancy refers to a pregnancy that has implanted in the peritoneal cavity, external to the uterine cavity and fallopian tubes. As the diagnosis of abdominal pregnancy is often missed during routine ultrasonography. An empty uterus may be easily visualized. Case of a 34-year-old woman, Gravida 3 Para 1,was referred from district Hospital with an abdominal pregnancy. Her chief complaint was severe abdominal pain. Patient admitted 8 months of pregnancy. Her last menstrual period was 24/9/2018 with Estimated Date of Delivery 01/7/2019, correspond to 31-32 weeks of pregnancy. Her antenatal care was four times to OBGYN. Ultrasound examination results show the uterus within normal limits with positive endometrial line. Singleton live intra-abdominal pregnancy. It was decided to terminate the pregnancy by laparotomy exploration. Intra operative, found intra-abdominal fetus. Born female baby, with birth weight 1900 gram, Apgar Score 8/9. On exploration found the placenta was extensively adherent in intestinal organs. It was decided not to release the placenta from the implantation site, the umbilical cord was cut as short as possible from the placenta. The placenta was left in situ. Followed by the injection of single dose Methotrexate (MTX) post operative. Bleeding from placental implantation site is the most life-threatening complication during laparotomy. The decision to remove the placenta or not can be a determining factor for the survival of the patient. It is generally recommended to leave the placenta in situ and make a follow up with human chorionic gonadotropin levels.

Keywords— abdominal pregnancy, ectopic pregnancy, placenta, methotrexate

Introduction

Abdominal pregnancy is a rare form of ectopic pregnancy. the incidence is 1% of all cases. while the incidence of ectopic pregnancy itself reaches 4% - 10% of pregnancies.(1)

The definition of ectopic pregnancy is a pregnancy implantation outside the endometrial lining of the uterine cavity. 95% the implantation of ectopic pregnancies was in fallopian tubes, while the rest were implanted in the cervical, cornual, interstitial, ovarian, heterotrophic, abdominal, and cesarean-scar implantations. (2)

The classification of abdominal pregnancy is divided into two: primary and secondary. Primary abdominal pregnancy (the less common type) usually occurs when the conception implants directly into the peritoneal cavity. Secondary abdominal pregnancy occurs when the conception first implants in the fallopian tube and then due to fimbrial abortion or rupture of fallopian tube, the fetus develops in the abdominal cavity. (3)

The diagnosis of abdominal pregnancy is frequently missed during routine antenatal care, despite of using the abdominal ultrasonography. It is estimated about five per 1000 cases of maternal mortality is associated with abdominal pregnancy. That's why it is important to detect abdominal pregnancy in early stage of pregnancy. (4)(5)(6)

Abdominal pregnancy is usually associated with high perinatal and maternal mortality and morbidity (heavy bleeding, bowel obstruction, and infection). It is usually diagnosed in advance gestational age. It poses serious clinical and imaging challenges among OBGYN. The diagnosis during the second half of pregnancy is suspected due to painful fetal movement. A viable fetus of abdominal pregnancy is a rare case. (7)

We reported a case of an advanced abdominal pregnancy who was delivered at 32 weeks' gestation with a live baby without any malformation and good maternal outcome.

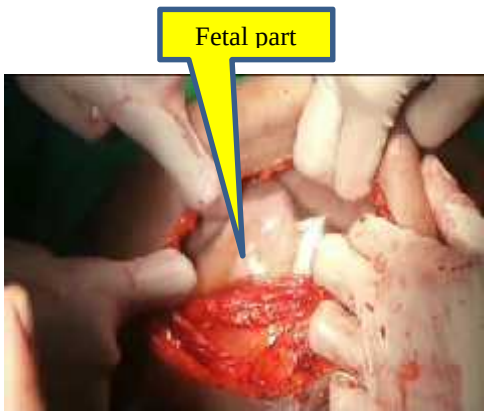
Case Report

Case of a 34-year-old woman, Gravida 3 Para 1, was referred from district Hospital with an abdominal pregnancy. Her chief complaint was severe abdominal pain. There was no contraction, blood slime was denied, and fetal movement was active. Patient admitted 8 months of pregnancy. Her last menstrual period was 24/9/2018 with Estimated Date of Delivery 01/7/2019, correspond to 31-32 weeks of pregnancy. Patient did antenatal care routinely every month at midwife and three times at OBGYN. Last Ultrasound examination, doctor confirmed that it was abdominal pregnancy and patient referred to RSUDZA Hospital.

Physical examination findings, BP 110/70 mmHg, HR 88x/i, RR 20x/i. general state were within normal limit. Obstetrical state found abdominal height until 2 fingers above the navel, FHR was 145 bpm. Inspection found vulva and urethra were within in normal limit. Inspekulo examination found portio livide, OUE was closed, fluxus was negative. Vaginal toucher examination found portio posterior, firm thickness 3 cm, no cervical dilatation. Laboratory findings, hemoglobin level 11.4 g/dl, leucocyte level 13100/uL, hematocrit 35 %. Thrombocyte 418x10^3/µL. Patient also underwent cardiotocographic examination, the results showed reassuring.

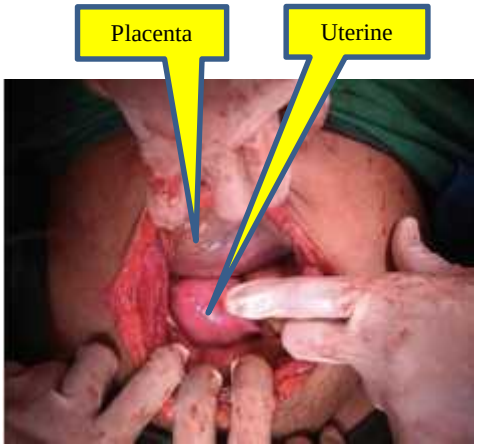
Transvaginal ultrasound examination found singleton live intra abdominal fetus with breech presentation. BPD 79 mm, HC 280.7 mm, AC 277.9 mm, FL 63 mm, with estimated fetal weight 1889 g, implantation of placenta was difficult to identify. Uterus was found in normal shape, size 7.12 x 5.7 x 4.5 cm, Endometrial line was positive. Patient was diagnosed with abdominal pregnancy.

It was decided to terminate the pregnancy by laparotomy exploration. Patient on supine position under spinal anaesthesia. Abdominal wall was open layer by layer. Intra operative, found an intra abdominal fetus.



(**Figure 1**. Intraoperative finding : fetus was found directly after peritoneal layer was opened)

(**Figure 2**. Intraoperative finding: placenta was implanted in intestinal organ)



(**Figure 3**. Intraoperative finding: uterus, both tubes and ovaries were within normal limit)

Born female baby, with birth weight 1900 gram, Apgar Score 8/9. On exploration, found placenta was extensively adherent in intestinal organs. Uterus was in normal limit (size 7x6x5 cm), both tubes and ovaries were also in normal limit. It was decided not to release the placenta from the implantation site, the umbilical cord was cut as short as possible from the placenta. The placenta was left in situ. Followed by injection of single dose Methotrexate (MTX) post operative.

Discussion

The definition of primary abdominal pregnancy is an ectopic pregnancy where the implantation of fertilized ovum occurs directly in abdominal cavity while the secondary abdominal pregnancy is defined as a tubal pregnancy that rupture with reimplantation in abdominal cavity. It is usually cause a tubal or ovarian damage. [8][9] Our patient in this case most likely had a primary abdominal pregnancy, as both tubes and ovaries were found normal during operation.

An abdominal pregnancy can go undetected until an advanced gestational age. Severe lower abdominal pain during fetal movement is one of the most consistent finding as clinical symptoms of abdominal pregnancy. [10] Another clinical features of abdominal pregnancy are fetal malpresentation, easily palpable fetal parts, or fetal demise. [1] In this case, we found abdominal pain as the chief complaint of the patient.

Ultrasonography is an important tool in the diagnosis of an abdominal pregnancy. In most of the cases, the diagnosis is usually made by an early obstetric ultrasound. From ultrasound examination usually find an empty uterine cavity, which can be associated with no sign of ectopic tubal pregnancy. In early stage of pregnancy, we can find a fetus in a gestational sac outside the uterus. But even with routine ultrasonography examination, the diagnosis can be missed, especially in the later stages of pregnancy. Fifty percent of diagnoses are erroneous, and only fourty percent of abdominal pregnancy are diagnosed before surgery. [2][11][12][13] It also happened in our patient. Although the patient had performed antenatal care three times at OBGYN. The diagnosis of abdominal pregnancy was made at 32 weeks of gestational age.

The other investigation of choice in suspected abdominal pregnancy is MRI. MRI will provide a clear picture of the location of placental implantation and its vascularisation. [13] However, we did not perform MRI examination in this patient after confirming the diagnosis of abdominal pregnancy.

Abdominal pregnancy is usually associated with high maternal, fetal, and perinatal morbidity and mortality. Among 21 and 90% of the surviving fetuses have serious birth defect due to compression and vascular disruption. [12] In this case, we did not find any of morbidity in the fetus.

The management of abdominal pregnancy depends on the gestational age at diagnosis and maternal hemodynamic status. For pregnancy beyond 24 weeks of gestational and stable maternal hemodynamic status, the pregnancy can be manage expectantly until 34 weeks of gestation when fetal lung maturity is certain. [14]

Several option have been described for the treatment of the placenta after delivery. This ranges from complete removal through partial removal to leave the placenta in situ. βhcg level should be follow up after leaving placenta in situ. The treatment option depend on the insertion site of placenta.[14] In this case, we found the implantation site of placenta is in intestine. Removing the placenta from its implantation site can lead excessive bleeding that can cause maternal morbidity and mortality, so we were decided to left placenta in situ. Follow up of βhcg level after operation should be performed in this patient.

Conclusion

An abdominal pregnancy with a healthy newborn is a rare occurrence. For abdominal pregnancies diagnosed before 20 weeks, termination is usually advised; however, an advanced abdominal pregnancy is managed expectantly with the aim of delivery at 34 weeks of gestation when fetal lung maturity is certain. The removal of placenta is for well-selected cases and is usually dependent on findings during surgery as well as the skills of surgeon otherwise it is advised to leave placenta *in situ*.

Conflict of Interest

There is no conflict of interest.

Acknowledments

Writers would like to thank the Department of Obstetrics and Gynecology of Dr. Zainoel Abidin Hospital, Banda Aceh, Aceh, Indonesia.

References

1. *Ge O, Ks O, Ba OA. A case report of a successfully managed advanced abdominal pregnancy with favorable fetomaternal outcomes. Trop J Obstet Gynaecol. 2017;34(3):240–2.*
2. *Bohiltea R, Radoi V, Tufan C, Ia H, Bohiltea C. Abdominal pregnancy - Case presentation. J Med Life. 2015;8(1):49–54.*
3. *Mengistu Z, Getachew A, Adefris M. Term abdominal pregnancy : a case report. J Med Case Rep. Journal of Medical Case Reports; 2015;9(168):15–7.*
4. *Dahab AA, Aburass R, Shawkat W, Babgi R, Essa*

O, et al. Full-term extrauterine abdominal pregnancy : a case report. J Med Case Rep. 2011;5(531):3–6.

5. Sunita Dubey, Mohit Satodiya , Priyanka Garg M rani. Primary Abdominal Pregnancy : A Case Report. J Clin Diagnostic Res. 2016;10(11):12–4.

6.Giunti A, Entwistle B, Gupta H. A Second Trimester Abdominal Ectopic Pregnancy. J Obstet Gynaecol Canada [Internet]. Society of Obstetricians and Gynaecologists of Canada; 2016;38(10):891. Available from: http://dx.doi.org/10.1016/j.jogc.2016.07.007

7. Mutarambirwa HD, Kenfack B, Fouogue JT, Presentation C. Case Report Term Abdominal Pregnancy Revealed by Amnioperitoneum in Rural Area. Hindawi Case Reports Obstet Gynecol. 2017;

8. Florent Ymele Fouelifack, Jovanny Tsuala Fouogue, Jeanne Hortence Fouedjio ZS. Case report. Viable abdominal pregnancy : a case report in Yaounde (Cameroon). Pan Afr Med J. 2014;8688:1–5.

9. Abdelrahman S, Deeter M, Muthusami A, Peterson TG, Wackenier L. CASE REPORT A live term intra-abdominal pregnancy in a Field Hospital : a case report. J Surg Case Reports. 2017;3:1–2.

10.Saquib S, Talha EM. Successful Management of Abdominal Pregnancy: Two Case Reports. Oman Med J. 2018;33(2):171–5.

11. Tolefac PN, Abanda MH, Minkande JZ, Priso EB. The challenge in the diagnosis and management of an advanced abdominal pregnancy in a resource-low setting : a case report. J Med Case Rep. Journal of Medical Case Reports; 2017;11(199):1–5.

12. Sahara Shurie, John Ogot, Philippe Poli EW. Case report. Pan Afr Med J. 2018;8688:1–5.

13. Bertrand G, Ray C Le, Simard-émond L, Dubois J, Leduc L. Imaging in the Management of Abdominal Pregnancy : A Case Report and Review of the Literature. J Obstet Gynaecol Canada [Internet]. Elsevier Masson SAS; 2009;31(1):57–62. Available from: http://dx.doi.org/10.1016/S1701-2163(16)34055-5.