International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Khandasu S. Int J Reprod Contracept Obstet Gynecol. 2022 Nov;11(11):3221-3223
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20222827

Case Report

Intramural pregnancy: a diagnostic dilemma for an obstetrician

Seema Khandasu*

Department of Obstetrics and Gynecology, Shri Shankaracharya Institute of Medical Sciences, Bhilai, Chhattisgarh, India

Received: 23 September 2022
Accepted: 12 October 2022

***Correspondence:**
Dr. Seema Khandasu,
E-mail: seemakhandasu4@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Intramural ectopic pregnancy is one of the rarest types of ectopic pregnancy, with risk of 1:30,000.Confirmation of intramural ectopic pregnancy is difficult and is often performed intra-operatively. Intramural ectopic pregnancy often requires hysterectomy to avoid life-threatening haemorrhage. We presented a case of intramural ectopic pregnancy in the second trimester. Transvaginal ultrasound and MRI are important non-invasive methods in diagnosing this type of ectopic pregnancy. Clinicians should provide consideration to a combination of strategies and do their best to preserve patient's 'uteri and fertility'.

Keywords: Intramural pregnancy, Ectopic pregnancy, Hysterectomy

INTRODUCTION

Intramural pregnancy- a pregnancy implant within the myometrium, separated from endometrial cavity and fallopian tubes or round ligament, and little is known about its etiology, prevalence and natural history. There is no consensus regarding the ultrasound criteria necessary for the diagnosis of intramural pregnancy and management strategies vary depending on the severity of clinical presentation, exact location of the pregnancy, viability and gestational age at diagnosis.

CASE REPORT

A 35 year old G3A2 with 21 weeks pregnancy and no history of previous myomectomy or curettage presented with severe epigastric pain and hypovolumic shock in casualty. Abdominal ultrasonography showed marked ascites and single live intrauterine fetus of corresponding age with grade 1 posterior fundal implantation of placenta having right lateral extension. She was admitted in medicine department. In view of ascites under evaluation. On admission her BP was 110/80 mmHg, pulse 110/min, per abdomen ascites present with no guarding/rigidity, uterus size 22 weeks with FHR 130-140 bpm, uterine contour maintained. She has received IV antibiotics, 1 unit packed red cell on Hb 5.7 g%. Her routine investigation sent which was normal. Surgery opinion had done where she had diagnosed as peritonitis kept NPO and RT. Then after she was referred in our department with acute abdomen and hypovolemic shock. She was conscious but disoriented, her BP was 100/60 mmHg, pulse 124/min, diffuse distension, tenderness and rebound tenderness on abdominal examination. The cervical OS was closed and there was no vaginal bleeding. Abdominal sonography showed fluid and a singleton fetus with absent of heart activity, in the abdominal cavity.

Blood was arranged and cross matched and she was taken for emergency exploratory laparotomy. About 2000 ml of blood and clots and the dead fetus was detected in abdominal cavity. The uterus was ruptured and the placental implantation site appeared to be under the external surface of fundus and posterior aspect of uterus and there is no connection between the endometrial cavity and rupture site. The uterus was unrepairable so decision of obstetric hysterectomy was taken. She was transfused with 3 units of packed red cell and 2 units of fresh frozen plasma intra-operatively and 1 unit packed red cell post-operatively.

The patient recovered and remained stable post-operatively. She was discharged home on the 8th post-operative day after removal of skin sutures.

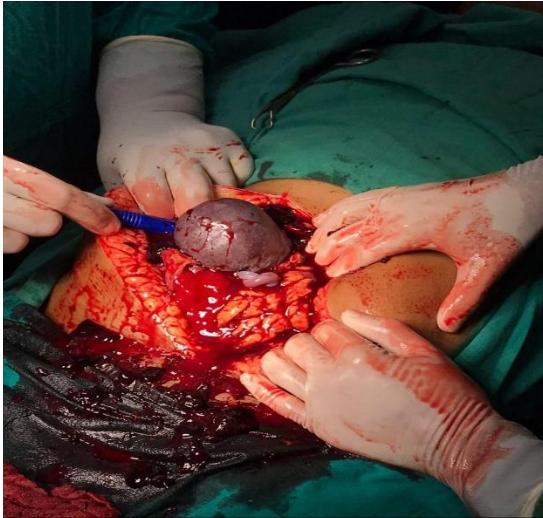

Figure 1: Intra-operative findings showing fetus in peritoneal cavity.

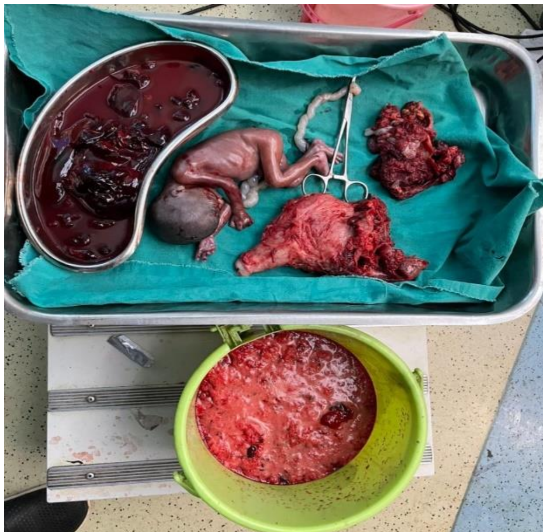

Figure 2: Fetus with placental bites, rupture uterus and haemo-peritoneal collection.

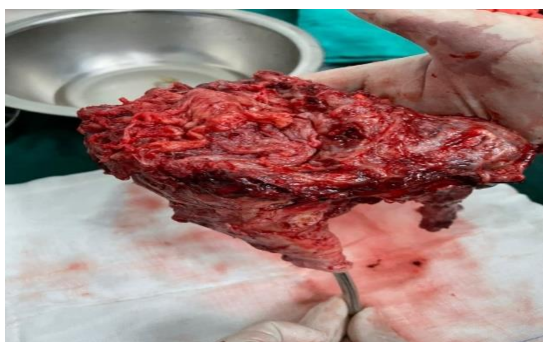

Figure 3: Rupture uterus with loss of endo-myometrial junction.

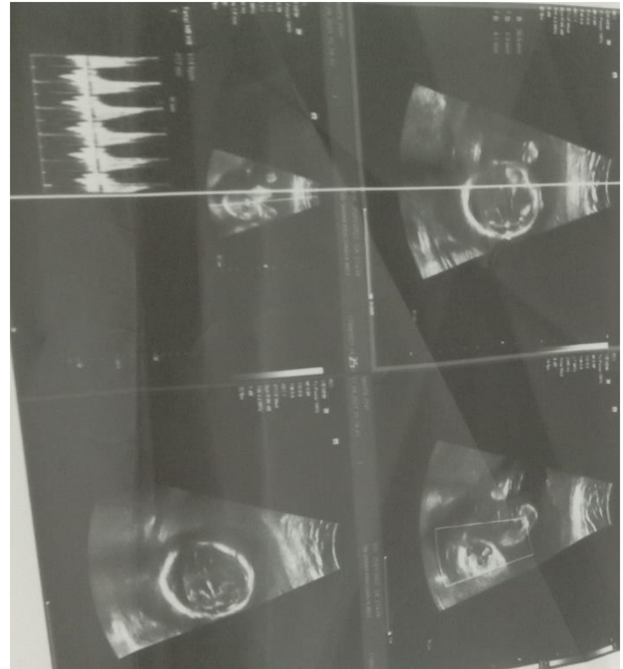

Figure 4: Sonography findings of intra-peritoneal collection with fetus and Doppler changes.

DISCUSSION

The clinical presentation of a ruptured intramural ectopic pregnancy depends on the amount of blood loss. Vaginal bleeding and lower abdominal pain may be the initial symptoms. Massive haemoperitoneum and hemodynamic shock usually occur in the second trimester of pregnancy, as illustrated by the case in review.[1-3] Although history and physical examination were suggestive of ruptured ectopic pregnancy, the diagnosis of intramural pregnancy was only confirmed by intraoperative findings and histopathological examination of hysterectomy specimens which showed chorionic invasion of myometrium. This was how the diagnosis was established in most of the cases reported in the literature.[4-8] If the diagnosis is made early before rupture, expectant or conservative management may be considered to preserve the patient's fertility. Conservative treatments reported in the literature include; surgical enucleation, injection of potassium chloride or methotrexate into the gestational sac, systemic methotrexate injection and uterine evacuation.[1,4,5,8-10]

CONCLUSION

Intramural ectopic pregnancy, if not diagnosed early, is commonly complicated by uterine rupture, massive hemoperitoneum, hypovolemic shock and fetal wastage. Hysterectomy is often avoidable. Early diagnosis before rupture is essential for prevention of maternal moratlity and for preservation of fertility.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Verghese T, Wahba K, Shah A. An interesting case of intramyometrial pregnancy. BMJ Case Rep. 2012;2012:bcr1120115187.
2. Jin H, Zhou J, Yu Y, Dong M. Intramural pregnancy: a report of 2 cases. J Reprod Med. 2004;49(7):569-72.
3. Fait G, Goyert G, Sundareson A, Pickens A. Intramural pregnancy with fetal survival: case history and discussion of etiologic factors. Obstet Gynecol. 1987;70(3 Pt 2):472-4.
4. Lazovic B, Milenkovic V. Intramural ectopic pregnancy. Arch Oncol. 2010;18:30-1.
5. Capogna MV, Costantini A, Santomarco N, Piccione E, Bonifante M. Intramural ectopic pregnancy. Ital J Obstet Gynecol. 2014;26:37-40.
6. Ginsburg KA, Quereshi F, Thomas M, Snowman B. Intramural ectopic pregnancy implanting in adenomyosis. Fertil Steril. 1989;51:354-6.
7. Lee GS, Hur SY, Kown I, Shin JC, Kim SP, Kim SJ. Diagnosis of early intramural ectopic pregnancy. J Clin Ultrasound. 2005;33(4):190-2.
8. Wang Y, Yu F, Zeng LQ. Ectopic Pregnancy in Uncommon Implantation Sites: Intramural Pregnancy and Rudimentary Horn Pregnancy. Case Rep Obstet Gynecol. 2015;2015:536498.
9. Memtsa M, Jamil A, Sebire N, Jauniaux E, Jurkovic D. Diagnosis and management of intramural ectopic pregnancy. Ultrasound Obstet Gynecol. 2013;42(3):359-62.
10. Khalifa Y, Redgment CJ, Yazdani N, Taranissi M, Craft IL. Intramural pregnancy following difficult embryo transfer. Hum Reprod. 1994;9(12):2427-8.

Cite this article as: Khandasu S. Intramural pregnancy: a diagnostic dilemma for an obstetrician. Int J Reprod Contracept Obstet Gynecol 2022;11:3221-3.