Content available at: https://www.ipinnovative.com/open-access-journals

Indian Journal of Obstetrics and Gynecology Research

Journal homepage: www.ijogr.org

Case Report

A case report of a first trimester missed abortion which unfolded into an emergency subtotal hysterectomy

Parameswari Manickavasagam[1], **Suganya Pattabiraman**[1]*, **Sornalakshmi Annadurai**[1], **Rajalakshmi Mahendran**[2]

[1] *District Government Headquarters Hospital and DNB Postgraduate Teaching Institute, Cuddalore, Tamil Nadu, India*
[2] *Dept. of Community Medicine, Sri Manakula Vinayagar Medical College and Hospital, Puducherry, India*

ARTICLE INFO

Article history:
Received 21-02-2024
Accepted 31-05-2024
Available online 04-11-2024

Keywords:
Hemorrhage
Previous uterine scar
Placenta accreta spectrum
First trimester imaging

ABSTRACT

Placenta Accreta Spectrum (PAS) encompasses various degrees of abnormal placental attachment, where the decidual basalis is compromised, allowing chorionic villi to invade into or beyond the myometrium. This invasion is difficult to diagnose in first trimester ultrasound. PAS results in incomplete separation of the placenta and subsequent hemorrhage which can be life threatening to the mother. We present a case of a woman with previous two LSCS presenting in first trimester with missed abortion wherein a Manual Vaccuum Aspiration was followed by uncontrollable hemorrhage necessitating a hysterectomy and a retrospective diagnosis of placenta increta. The primary modality of imaging in first trimester -the ultrasound - is not reliable to diagnose placenta accreta syndrome and additional inputs may be needed to make this diagnosis in the first trimester

1. Introduction

Placenta Accreta Spectrum (PAS) encompasses a range of abnormal placentation with disruption of the decidual basalis enabling invasion of chorionic villi into or past the myometrium in turn leading to incomplete placental separation and major obstetric hemorrhage.[1] PAS is a life threatening condition and a major cause of maternal mortality. It is also associated with maternal morbidity like hysterectomy due to uncontrollable bleeding, large volume of blood transfusion, coagulopathy, ureteral injury, intra-abdominal infection and prolonged maternal admission to intensive care unit. The most important risk factors are the following: previous caesarean delivery, maternal age over 35 and dilatation and curettage**.** The incidence of placenta accreta spectrum is expected to increase in the coming years due to an increase in the frequency of cesarean sections and advanced maternal age both of which are independent risk factors for placenta accreta spectrum.[2,3]

2. Case Presentation

A 30-year-old woman G3P2L2 previous two LSCS, last childbirth two years ago, and current pregnancy gestational age of 12 weeks and 4 days presented with complaints of spotting per vaginum and lower abdominal pain of one day duration. Her general physical examination was found to be normal, and her vital signs were stable. Per abdomen examination showed a healthy suprapubic transverse scar and an uterine size of 14-16 weeks. On per vaginal examination, cervix pointing downwards, uterus was anteverted and corresponding to 14-16 weeks size, fornices were free and bleeding was present. All baseline investigations were found to be normal. An emergency ultrasound was done, and it was suggestive of Dichorionic Diamniotic (DCDA) twin pregnancy in early gestational

* *Corresponding author*.
E-mail address: drrajalakshmimahe@gmail.com (S. Pattabiraman).

https://doi.org/10.18231/j.ijogr.2024.123

failure. After investigations informed consent was obtained from the patient and she was taken up for manual vacuum aspiration.

2.1. Operative procedure and findings

During MVA, products of conception were removed; however, abnormal fresh bleeding from the uterine cavity was noted. It could not be controlled with tranexamic acid or uterotonics -oxytocin 40 units, methergine 0.2 mg and carboprost 250mcg. Patient went into shock following a blood loss of about one liter in a few minutes. Immediate resuscitation with intravenous fluids and other supportive management was done. After obtaining informed consent, case proceeded to emergency laparotomy; resuscitation continued with adequate blood and blood products. Intra-operative findings were: Both fallopian tubes were found to be normal, left ovary showed cyst measuring 3cm and uterus corresponds to 12-14 weeks, lower uterine segment appeared vascular and covered with engorged vessels (Figure 1).

Placenta was implanted at the lower uterine segment, adherent to the anterior uterine wall. Absence of cleavage plane between placental bed and endometrium; Inability to remove placenta from the uterus (Figures 2 and 3).

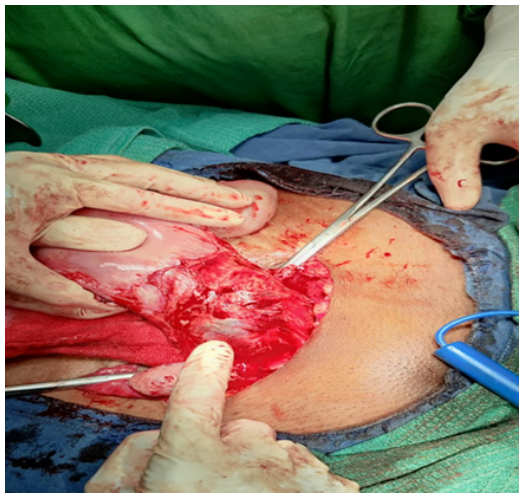

Figure 1: Placental invasion into myometrium with increased vascularity and engorged vessels

Emergency laparotomy proceeded to subtotal hysterectomy. She was transfused with four units of PRBC and four FFPs. The patient was shifted to ICU. Her postoperative period was monitored for coagulopathy, anaemia, thromboembolism and organ dysfunction and it was uneventful. She was discharged on day 7 in a stable condition. Histopathological report of uterus with cervix showed chronic cervicitis, products of conception and endometrial cavity with decidual cells invading myometrium close to serosa.

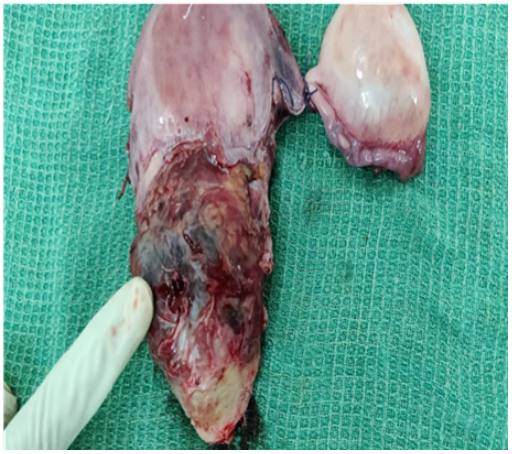

Figure 2: Bluish bulge can be seen through the myometrium

Figure 3: Placental tissue invading the myometrium and reaching up to serosa with left ovarian cyst

3. Discussion

Placenta increta is abnormally implanted, invasive or adherent placenta with myometrial invasion. PAS occurs when the placenta attaches itself deeply into the uterine wall between the myometrial fibres, excessive capacity of infiltration by chorionic villi or when the decidual reaction is inadequate in containing villi penetration. It is due various other risk factors like advanced maternal age > 35 years, multiparity > 6 pregnancies, prior caesarean delivery, placenta previa, previous caesarean delivery with placenta previa, prior uterine surgery like myomectomy, uterine pathology like Adenomyosis, submucous fibroid, bicornuate uterus, uterine artery embolization, endometrial ablation, uterine curettage, asherman syndrome, manual removal of placenta, puerperal sepsis, postpartum endometritis and previous history of adherent placenta.

In this case previous two caesarean section risk factor was found.

Investigations of choice to diagnose PAS were:

1. Ultrasound: a low lying sac that appears to be attached to the anterior wall of the uterus, loss or irregularity of hypoechoic area between placenta and myometrium (clear space), thinning or interruption of the hyperechoic interface between uterine serosa and bladder wall (bladder line) and abnormal bulge of uterine serosa into the bladder lumen are the sonographic signs of PAS
2. Colour doppler: shows hypervascularity between myometrium and posterior wall of bladder, hypervascularity in placental bed, bridging vessels, placenta lacunae feeder vessels and intra placental hypervascularity.
3. MRI

A systematic review and meta-analysis on epidemiology of placenta previa accreta had shown that there is a need to implement standardised protocols for the diagnosis of both placenta previa and PAS.[4–8]

4. Conclusion

As explicit in this case, ultrasound screening in first trimester of pregnancy does not seem to have the high sensitivity to reliably detect PAS. Prospective studies are needed to further refine the techniques in USG to reliably diagnose PAS in first trimester. Prospective studies are also needed to assess the best method/methods (colour doppler/MRI) for routine screening of PAS in first trimester.

The rate of CD increased from 5 to 32.9% in 2009. 45 similar or even higher rates of CDs are reported Elsewhere in the world with countries such as Brazil (45%), Mexico (44%), China (42%), and Italy (38%). In consideration of the epidemiologic emergency, the great maternofetal morbidity and mortality, and the possible medico-legal implications, the prenatal diagnosis Of PAS is extremely important above all for correct management in consideration of the importance of diagnosis and the possible severe consequences in case of misdiagnosis, it is appropriate that all suspected cases are subjected to a careful diagnostic study in a referral centre, where it is possible to benefit from more advanced technology and operators with higher experience.

5. Recommendations

Our suggestion is that in patients with a prior uterine scar, in the first trimester, the USG may be combined with MRI to optimise diagnostic accuracy in PAS. This will help to optimise management with a planned elective hysterectomy/ other modalities of management whicn in turn will reduce morbidity and mortality in women with PAS.

6. Consent

Written informed consent was obtained from the patient for this case report.

7. Source of Funding

None.

8. Conflict of Interest

There are no conflicts of interest for any of the authors to be declared.

References

1. Silver RM, Barbour KD. Placenta accreta spectrum: accreta, increta, and percreta. *Obstet Gynecol Clin North Am*. 2015;42(2):381–402.
2. Thurn L, Lindqvist PG, Jakobsson M, Colmorn LB, Klungsoyr K, Bjarnadóttir RI, et al. Abnormally invasive placenta-prevalence, risk factors and antenatal suspicion: results from a large population-based pregnancy cohort study in the Nordic countries. *BJOG*. 2015;123(8):1348–55.
3. Héquet D, Ricbourg A, Sebbag D, Rossignol M, Lubrano S, Barranger E. Placenta accreta : dépistage, prise en charge et complications [Placenta accreta: screening, management and complications. *Gynecol Obstet Fertil*. 2013;41(1):31–7.
4. Rashbaum WK, Gates EJ, Jones J, Goldman B, Morris A, Lyman WD. Placenta accreta encountered during dilation and evacuation in the second trimester. *Obstet Gynecol*. 1995;85(5):701–3.
5. Alexander S, Waqarun R, Manonmani A, Kecia G, Chandra J. Early second trimester incomplete abortion with undiagnosed placenta accreta encountered as an acute gynecological emergency: a case report. *Int J Pregn Chi Birth*. 2019;5(5):177–8.
6. Silver RM, Landon MB, Rouse DJ, Leveno KJ, Spong CY, Thom EA, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. *Obstet Gynecol*. 2006;107(6):1226–32.
7. Cui R, Li M, Lu J, Bai H, Zang Z. Management strategies for patients with placenta accreta spectrum disorders who underwent pregnancy termination in the second trimester: a retrospective study. *BMC Pregnancy Childbirth*. 2018;18(1):298.
8. Jauniaux E, Grønbeck L, Bunce C, Langhoff-Roos J, Collins SL. Epidemiology of placenta previa accreta: a systematic review and meta-analysis. *BMJ Open*. 2019;9(11):e031193.

Author's biography

Parameswari Manickavasagam, Senior Consultant https://orcid.org/0009-0007-8354-8862

Suganya Pattabiraman, Senior Assistant Consultant https://orcid.org/0009-0009-6520-6265

Sornalakshmi Annadurai, 3rd Year Postgraduate https://orcid.org/0009-0009-5155-3995

Rajalakshmi Mahendran, Associate Professor https://orcid.org/0000-0002-6673-6171

Cite this article: Manickavasagam P, Pattabiraman S, Annadurai S, Mahendran R. A case report of a first trimester missed abortion which unfolded into an emergency subtotal hysterectomy. *Indian J Obstet Gynecol Res* 2024;11(4):680-682.