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Unexpected Intruder: An Interesting Case of Placenta Increta

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ABSTRACT

Placenta accreta, a condition with high morbidity, is anticipated in women with risk factors for the same. Danger when anticipated is easier handled than when taken by surprise. Here we report a case of placenta increta with an unusual presentation.

Keywords: Placenta accreta, placenta increta, adherent placenta, severe morbidity, increasing cesarean section rates

Adherent placenta is an abnormal attachment of the placental villi to the decidua and can present with varying degrees of invasion into the myometrium.[1] Placenta increta is one of the rarer forms of adherent placenta. It is a serious condition associated with severe morbidity and even mortality. The risk factors include prior cesarean and uterine curettage.[2]

This condition affects 1 in 2,500 pregnancies.[1] The increasing cesarean section rates has contributed to the alarming increase in adherent placenta but the risk remains low in an unscarred uterus. Here we discuss a case of placenta increta in a patient with no known risks for adherent placenta, who was successfully managed conservatively.

CASE REPORT

Mrs SA, a 24-year-old primiparous lady was referred to our center with failed attempt at manual removal of placenta, after an uncomplicated vaginal delivery at term in a nursing home.

On reviewing her history, she had been a second gravid with one previous spontaneous abortion at 2 months. She had no history of uterine curettage. The index pregnancy had been uneventful. She had spontaneous onset of labor at 39 weeks and delivered vaginally - a healthy 2.7 kg boy baby. However, placenta failed to separate even 2 hours after the delivery. Manual removal was tried in that nursing home, which was unsuccessful. Hence, patient was referred for tertiary care to Sri Ramachandra Medical College, Chennai.

On examination in the casualty, her general condition was satisfactory with a blood pressure (BP) of 110/70 mmHg. She had tachycardia with heart rate ~110-130 bpm. On abdominal examination, uterus was 28 weeks in size and firm in consistency. On vaginal examination, os was closed with ~100 g of clots in the vagina.

Ultrasound (Fig. 1) showed placenta at the fundus and post wall invading into the myometrium, with thinning of myometrium at the fundus. USG was followed by magnetic resonance imaging (MRI) (Figs. 2 and 3), which confirmed the earlier diagnosis of placenta increta with more than 60-70% of myometrial invasion; maximum thickness of the myometrium was 5 mm at the fundus.

In view of placenta increta, we decided on uterine artery embolization (UAE) after counseling the patient and her family.

The procedure was done under LA. Selective catheterization of both uterine arteries was done followed by embolization using graded polyvinyl alcohol (PVA) particles.

Completion angiograms confirmed complete absence of abnormal blush and vascularity on either side. After the embolization, patient was given one dose of intramuscular methotrexate 50 mg.

Two days after the embolization, patient developed spikes of fever hemoglobin level progressively dropped from 8.4 mg/dL on D1 to 5.4 on D3 along with drop

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Figure 1. Ultrasound showing adherent placenta.

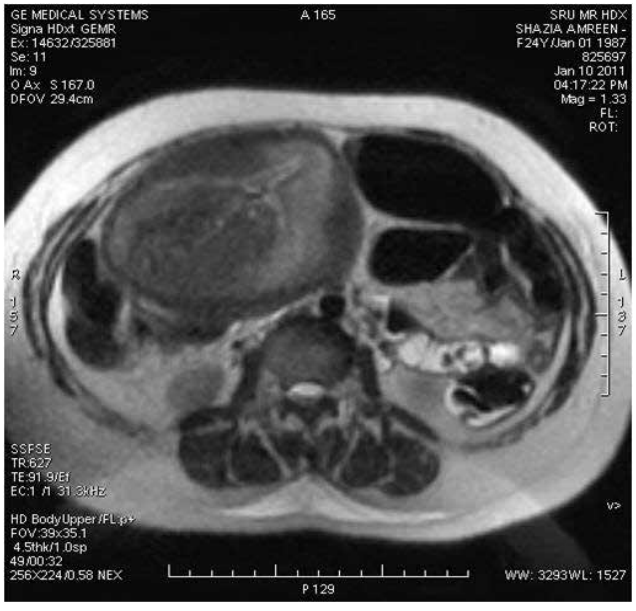

Figure 2. MRI showing placenta increta.

in total count from 17,000 to 4,500. Further doses of methotrexate was withheld because of pancytopenia. Three units of packed cell was transfused. Patient recovered well and was discharged on Day 7.

Patient has been following up on OP basis for the last 3 months. Clinical examination showed progressive involution of the uterus. Fundal height decreased from 28 weeks prior to the embolization to 14 weeks after 6 weeks and serial ultrasound has shown consistent decrease in the size of placenta from 8.6 × 6.0 to 8.0 × 5.8 at 3 weeks and 6.7 × 5.4 cm at 6 weeks with no flow on Doppler. Beta-hCG (human chorionic gonadotropin) returned to normal after 3 weeks. Eighty-two days after the procedure, patient expelled the placenta (Fig. 4) following 6 days of pain abdomen and moderate amount of bleeding per vaginum.

Figure 3. MRI showing thinning of myometrium at the fundus.

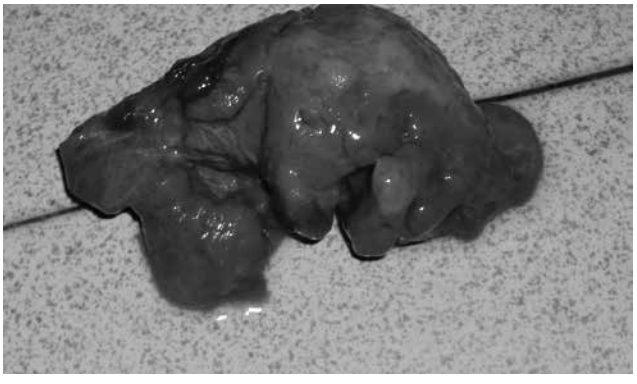

Figure 4. The expelled placenta on Day 82.

DISCUSSION

A placenta accreta occurs when there is abnormally firm attachment of placental villi to the uterine wall with the absence of the normal intervening decidua basalis and Nitabuch's layer. There are 3 variants of this condition: 1) *Accrete*: The placenta is attached to the myometrium - incidence reported is 75%; 2) *Increta*: The placenta extends into the myometrium and is seen in 17% of patients with adherent placenta and 3) *Percreta* reported in 5-7% - the placenta extends through the entire myometrial layer and uterine serosa.

About 88% of placenta accreta cases are associated with placenta previa and 78% have a history of previous cesarean birth.[3] The risk of placenta accreta is 0.03% for primi, without placenta previa.[4]

Placenta accreta can be diagnosed using ultrasound or MRI. When one imaging modality is inconclusive, the other modality may be useful for clarifying the diagnosis.[5] Sonographic features that have been associated with placenta accreta include:[6]

- Loss of normal hypoechoic retroplacental zone.
- Multiple vascular lacunae within placenta, giving "Swiss cheese" appearance.
- Blood vessels or placental tissue bridging uterine-placental margin, myometrial-bladder interface or crossing uterine serosa.
- Retroplacental myometrial thickness of <1 mm.
- Numerous coherent vessels visualized with 3-dimensional power Doppler in basal view.

Serial MRI, in conjunction with β-hCG assays, has been shown to provide an accurate and noninvasive imaging modality to confirm ablation of residual trophoblastic tissue.[7] When analyzing the role of conservative management of placenta accreta - it has been found to have a good success rate along with a reduction in the hysterectomy rate from 84% to 15%, proving that leaving the placenta *in situ* is a safe alternative to removing the placenta.[8,9]

Conservative management of placenta accreta with methotrexate although successful in uterine preservation, has not been found to be effective in prevention of significant delayed hemorrhage.[10]

UAE for placenta accreta has been found to be a safe and effective method for persistent but noncatastrophic obstetric bleeding[11] and this modality has been well-established as an adjunctive treatment in cases, where the placenta is left *in situ*. Prophylactic UAE with PVA particles, to reduce uterine and placental blood flow, postoperatively has been found to be effective[12] and subsequent fertility is not impaired by the procedure.[13]

Methotrexate has been used to accelerate reduction in placental mass and combination of methotrexate with UAE has also been reported.[14] Expulsion of the retained placenta has been reported to occur as long as 7-8 weeks later.[15]

CONCLUSION

Placenta increta occurs rarely in patients without risk factors nevertheless this condition must always be considered in women with retained placenta. UAE is a safe and effective nonsurgical method in the management of adherent placenta in a hemodynamically stable patient.

REFERENCES

1. ACOG Committee on Obstetric Practice. ACOG Committee opinion. Number 266, January 2002: placenta accreta. Obstet Gynecol. 2002;99(1):169-70.
2. De Lange M, Rouse GA. Ob/Gyn Sonography: An Illustrated Review. Pasadena, Calif: Davies Publishing Inc; 2004.
3. Armstrong CA, Harding S, Matthews T, Dickinson JE. Is placenta accreta catching up with us? Aust N Z J Obstet Gynaecol. 2004;44(3):210-3.
4. Silver RM, Landon MB, Rouse DJ, Leveno KJ Spong CY, Thom EA, et al; National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network. Maternal morbidity associated with multiple repeat cesarean deliveries. Obstet Gynecol. 2006;107(6):1226-32.
5. Dwyer BK, Belogolovkin V, Tran L, Rao A, Carroll I, Barth R, et al. Prenatal diagnosis of placenta accreta: sonography or magnetic resonance imaging? J Ultrasound Med. 2008;27(9):1275-81.
6. Publications Committee, Society for Maternal-Fetal Medicine, Belfort MA. Placenta accreta. Am J Obstet Gynecol. 2010;203(5):430-9.
7. Sonin A. Nonoperative treatment of placenta percreta: value of MR imaging. AJR Am J Roentgenol. 2001;177(6):1301-3.
8. Kayem G, Davy C, Goffinet F, Thomas C, Clément D, Cabrol D. Conservative versus extirpative management in cases of placenta accreta. Obstet Gynecol. 2004;104(3):531-6.
9. Sentilhes L, Ambroselli C, Kayem G, Provansal M, Fernandez H, Perrotin F, et al. Maternal outcome after conservative treatment of placenta accreta. Obstet Gynecol. 2010;115(3):526-34.
10. Mussalli GM, Shah J, Berck DJ, Elimian A, Tejani N, Manning FA. Placenta accreta and methotrexate therapy: three case reports. J Perinatol. 2000;20(5):331-4.
11. Uchiyama D, Koganemaru M, Abe T, Hori D, Hayabuchi N. Arterial catheterization and embolization for management of emergent or anticipated massive obstetrical hemorrhage. Radiat Med. 2008;26(4):188-97.
12. El-Messidi A, Morissette C, Faught W, Oppenheimer L. Application of 3-D angiography in the management of placenta percreta treated with repeat uterine artery embolization. J Obstet Gynaecol Can. 2010;32(8):775-9.
13. Chauleur C, Fanget C, Tourne G, Levy R, Larchez C, Seffert P. Serious primary post-partum hemorrhage, arterial embolization and future fertility: a retrospective study of 46 cases. Hum Reprod. 2008;23(7):1553-9.
14. Sherer DM, Gorelick C, Zigalo A, Sclafani S, Zinn HL, Abulafia O. Placenta previa percreta managed conservatively with methotrexate and multiple bilateral uterine artery embolizations. Ultrasound Obstet Gynecol. 2007;30(2):227-8.
15. Chan BC, Lam HS, Yuen JH, Lam TP, Tso WK, Pun TC, et al. Conservative management of placenta praevia with accreta. Hong Kong Med J. 2008;14(6):479-84.