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Case Report

A rare case of retained placenta in a young primigravida with no known risk factors; managed by manual removal of the placenta under general anaesthesia

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ABSTRACT

A retained placenta is suspected when there is failure of expulsion of the placenta even after 30 minutes of delivery of the fetus. Retained placenta is a common cause of PPH and, hence, a significant cause of maternal mortality and morbidity in developing countries. Thus, early intervention is necessary to prevent this post-delivery of the baby. We present a case of retained placenta in a young primigravida with oligohydramnios with fetal horse horseshoe-shaped kidney and a foetal echogenic bowel loop. Her clinical findings and investigations were not significant at the time of admission. She was induced with dinoprostone gel intra-cervically and delivered via vaginal route. There was failure of expulsion of the placenta even after 30 minutes of delivery of the baby. Inj. syntocin 5 units were given via the umbilical cord. In the event of this failure, the patient was shifted inside the OT, and manual removal of the placenta was done under general anaesthesia f/b evacuation retained bits of placental membranes with ovum forceps under USG guidance. Retained placenta can lead to severe PPH and its consequences in the postpartum period. Thus, it requires timely intervention to prevent PPH and reduce maternal mortality and morbidity. Cases of retained placenta can occur even in the absence of any known identified risk factors and should be managed in a tertiary care centre with OT facilities.

Keywords: Retained placenta, Dinoprostone, Manual removal of placenta, Oxytocin

INTRODUCTION

Retained placenta affects about 0.5% to 3% of spontaneous vaginal deliveries.[1] It is caused due to abnormal placental separation.[2] Diagnosis typically occurs if the placenta does not separate spontaneously during the third stage of labour when a patient experiences excessive bleeding in absence of placenta separation or if there is confirmation of placenta tissue remaining after the majority of the placenta delivers spontaneously.[3] Currently, three proposed mechanisms account for retained placenta: invasive placental attachment, insufficient placental blood flow, and inadequate uterine contractions.[4]

Following vaginal delivery, retained placenta poses significant health risks for women, primarily due to postpartum haemorrhage.[5] This complication can arise in approximately 10% of cases. Several studies have shown a maternal mortality rate ranging from 5.6% to nearly 10% in rural regions.[6]

Removal of retained placenta can be achieved through either manual techniques/pharmacological intervention. The preferred and commonly accepted approach for treating retained placenta is through manual removal.[7]

Here we present a case of retained placenta in 25 years old primigravida managed by manual removal under general

anaesthesia. This case has been reported in line with the SCARE criteria.[8]

CASE REPORT

A 25-year-old, booked case, Primigravida spontaneous conception, presented to AIIMS, Rishikesh, India obstetrics outpatient department for routine ante-natal check-up. Her gestational age at presentation was 37 weeks 5 days with no history of pain abdomen or P/V leaking or P/V bleeding. She was admitted I/V/O safe confinement of pregnancy. Her 1st, 2nd and 3rd trimester were uneventful. Her 2nd trimester gross congenital anomaly scan was suggestive of dilated large bowel and rectum with echogenic appearance and bilateral kidneys with possible horse shoe-shaped morphology but her quadruple marker and fetal 2D echo was normal. 3rd trimester USG showed Singleton live intrauterine pregnancy of 34 weeks 2 days of gestation in cephalic presentation, placenta attached to anterior and left lateral wall away from the cervical internal Os, AFI (Amniotic fluid index)=4.2 cm (oligohydramnios), EFW (Estimated fetal weight): 2356 gm.

On the initial physical examination, the vital signs were within normal limits. Obstetric examination showed a fundal height corresponding to 36 weeks size in longitudinal lie, cephalic presentation with head 5/5th palpable and relaxed uterus. Fetal heart sound was 136 bpm and regular.

Per vaginal examination findings were cervical OS: 1.5-2 cm dilated, cervix soft, central and 20-30% effaced. Head station was at-2. Patient and attendant were explained the risks and benefits of both the vaginal delivery and caesarean section. They opted for vaginal delivery. After informed consent, patient was induced with 0.5 mg of dinoprostone gel intra-cervically. She delivered a male weighing 2866 gm by vaginal route. Inj. syntocin 10 units I/M stat given and 20 units in 500 CC normal saline via I/V route and then Controlled cord traction (CCT) was done but placenta was not expelled even within 30 min of the delivery of the baby. Inj. syntocin 5 units given via umbilical vein via umbilical cord. Manual removal of placenta was tried in labour room but failed even after 1 hour of delivery of the baby and hence diagnosis of retained placenta was made. Bedside USG was done and the placenta was found to be not separated from the endo-myometrial junction (Figure 1). Patient was shifted to operation theatre and manual removal of placenta was done under general anaesthesia (Figure 2) and placenta with its membranes were sent for culture sensitivity and histopathological examination. Check USG was done inside OT and retained bits of placental membranes were removed with ovum forceps under USG-guidance.

Injection carboprost 250 mcg 1 dose IM stat was given in operation theatre and uterine tone was achieved. 20 units inj. syntocin maintenance dose in 500 CC normal saline via IV route. Then patient was shifted to obstetrics post-operative ward and vitals monitoring was done. Post operatively, patient was managed with Intravenous fluids, analgesics (Inj. diclofenac), injection antibiotic (ceftriaxone and metronidazole) for 48 hours followed by oral antibiotic(cefixime) for 5 days. Furthermore 1 pint of whole blood was transfused post-operatively. Histopathology: Section from placenta tissue showed chorionic villi with pattern of maturation corresponding to third trimester (Figure 3). Section from the membrane showed no remarkable changes (Figure 4). Section from the umbilical cord showed triple vessel cord (Figure 5). Therefore, the histopathological examination of the placenta was found to be normal. Also, the culture and sensitivity of the placenta showed no growth after 48 hours in culture media. Post-delivery, the baby was diagnosed with intermediate Ano-rectal malformation with? Recto-/ano-vesical fistula. Loop sigmoid colostomy was done by paediatric surgery team and advised for further management of the baby by paediatric surgery team. The patient and baby were discharged in stable condition.

Figure 1: Placenta *in-situ* (Retained placenta).

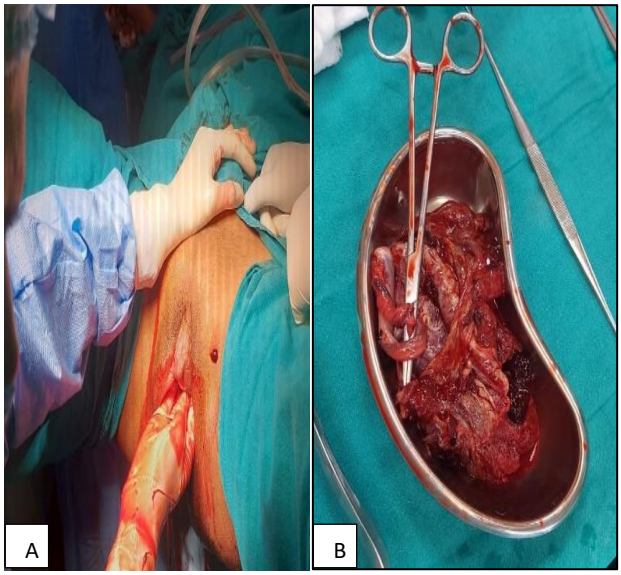

Figure 2 (A and B): Manual removal of placenta.

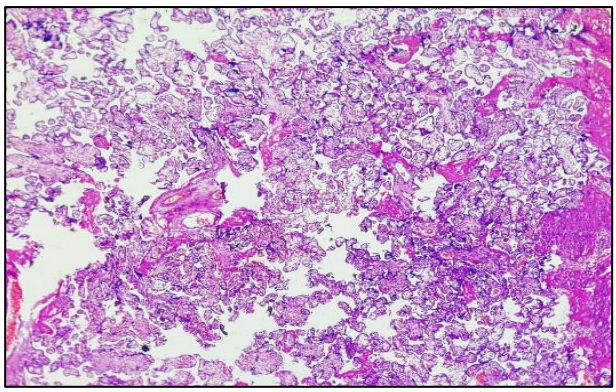

Figure 3: Section from placenta tissue showing chorionic villi with maturation.

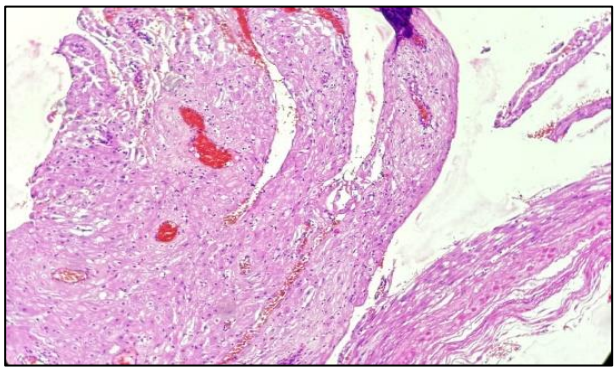

Figure 4: Section from the membrane showing no remarkable changes.

Figure 5: Section from the umbilical cord showing triple vessel cord.

DISCUSSION

Retained placenta is when the third stage of labour exceeds 30 minutes with active management, or exceeds 60 minutes with physiological management (NICE 2014). This condition arises when the myometrium behind the placenta fails to contract properly. It can also manifest during labour, leading to dysfunctional labour. The persistence of certain placental inhibitory factors, such as progesterone or nitric oxide, which are typically diminished before labour begins, is likely responsible for this occurrence.[9] Factors increasing the risk of retained placenta include a prior occurrence of retained placenta, previous uterine curettage, history of stillbirth, preterm birth, pre-eclampsia, prolonged oxytocin usage, and advanced maternal age.[10] A retrospective case-control study by Cohen et al found 9 potential risk factors for retained placenta: placental abruption, gestational hypertensive disorders, prematurity, advanced maternal age, intrapartum fever, lateral placentation, oxytocin administration, diabetes mellitus and a female fetus.[2] A similar retrospective cohort study by Meyer et al on-risk factors for third stage placental complications in primigravida women have identified multiple risk factors like maternal age, assisted reproduction, preeclampsia, thrombocytopenia, oxytocin administration, duration of second stage of labour and female neonatal gender were all positively and independently associated with an increased risk of third stage placental complications.[11]

Retained placenta is a potentially life-threatening complication of the third stage of labour. There is a high risk of maternal death from haemorrhage or infection if left untreated, as may happen after home births in developing countries.[12] A retained placenta is usually managed by manual removal or curettage under anaesthesia.[13] In the present study of a young primigravida, the retained placenta was managed by manual removal of placenta under general anaesthesia. A similar case report of retained placenta in a young primigravida with Rh-negative pregnancy by Maharjan et al but was managed by peripartum subtotal hysterectomy in line of placenta accreta.[14] A case report by AlMousa et al on the rule of USG on retained placenta where a retained placenta in 34 years old gravida 3 para 1+1 was managed by manual removal of placenta under general anaesthesia.[15] A similar case report of retained adherent placenta in a primigravida patient by Vaidya but it was managed conservatively by Inj. Methotrexate and followed up with USG and β-hCG report.[16]

CONCLUSION

Retained placenta is an obstetric emergency and a significant cause of maternal morbidity and mortality. Cases of retained placenta in young primigravida are rare with few known risk factors but it can occur even in the absence of any identifiable risk factor. Timely intervention is necessary and manual removal of placenta is the preferred management approach and should be preferentially done in a tertiary care centre.

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REFERENCES

1. Greenbaum S, Wainstock T, Dukler D, Leron E, Erez O. Underlying mechanisms of retained placenta: Evidence from a population-based cohort study. Eur J Obstet Gynecol Reprod Biol. 2017;216:12-7.

2. Cohen G, Kovo M, Biron-Shental T, Markovitch O, Daykan Y, Schreiber H. Risk factors for retained placenta in a first pregnancy-A clinical trial. Int J Gynaecol Obstet. 2023;163(1):194-201.
3. Perlman NC, Carusi DA. Retained placenta after vaginal delivery: risk factors and management. Int J Women's Health. 2019:527-34.
4. Le Gallee M, Lee S, Spence AR, Czuzoj-Shulman N, Klam S, Abenhaim HA. Association Between First-Trimester Bleeding and Retained Placenta Requiring Dilatation and Curettage. J Obstet Gynaecol Can. 2021;43(4):463-8.
5. Cohen A, Gutman-Ido E, Karavani G, Albeck A, Rosenbloom JI, Shushan A, Chill HH. The association between history of retained placenta and success rate of misoprostol treatment for early pregnancy failure. BMC Womens Health. 2023;23(1):523.
6. Chongsomchai C, Lumbiganon P, Laopaiboon M. Prophylactic antibiotics for manual removal of retained placenta in vaginal birth. Cochrane Database Syst Rev. 2006;(2):CD004904.
7. Grillo-Ardila CF, Amaya-Guio J, Ruíz-Parra AI, Amaya-Restrepo JC. Systematic review of prostaglandin analogues for retained placenta. Int J Gynaecol Obstet. 2018;143(1):19-23.
8. Agha RA, Franchi T, Sohrabi C, Mathew G, Kerwan A; SCARE Group. The SCARE 2020 Guideline: Updating Consensus Surgical Case Report (SCARE) Guidelines. Int J Surg. 2020;84:226-30.
9. Weeks AD. The retained placenta. Afr Health Sci. 2001;1(1):36-41.
10. Kongwattanakul K, Rojanapithayakorn N, Laopaiboon M, Lumbiganon P. Anaesthesia/analgesia for manual removal of retained placenta. Cochrane Database Syst Rev. 2020;6(6):CD013013.
11. Meyer R, Rottenstreich A, Tsur A, Cahan T, Levin G. Risk factors for third stage placental complications among primigravid women. Placenta. 2020;99:16-20.
12. Nardin JM, Weeks A, Carroli G. Umbilical vein injection for management of retained placenta. Cochrane Database Syst Rev. 2011;(5):CD001337.
13. Grillo-Ardila CF, Ruiz-Parra AI, Gaitán HG, Rodriguez-Malagon N. Prostaglandins for management of retained placenta. Cochr Database of Syst Rev. 2014;5:CD010312.
14. Maharjan M, Shrestha P, Ghimire S. A rare case of morbidly adherent placenta in a young Primigravida with RH negative pregnancy managed with peripartum subtotal hysterectomy. Int J Surg Case Rep. 2024;114:109121.
15. AlMousa R, AlMuhaidib HR, Alanezi SM, Al Qahtani N. The rule of ultrasonography in the management of retained placenta. Cureus. 2021;13(1):10.
16. Vaidya A, Panchbudhe S, Satia M. Conservative management in a case of retained adherent placenta in a primigravida patient. Int J Reproduct Contracept Obstetr Gynecol. 2017;6(7):3188-92.

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