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Research Article

A CASE SERIES OF PLACENTA PERCRETA: A LIFE THREATENING EMERGENCY AT RURAL CENTER

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A B S T R A C T

Maternal and fetal morbidity and mortality from placenta percreta are understood and are associated with more demands on health resources. There is abnormally firm attachment of placenta to the uterine wall with the absence of deciduas basal is and incomplete development of Nitabuch's layer. Placenta percreta is a type of placenta accrete spectrum. Incidence of percreta was 1 in 533 pregnancies for the period of 1982-2002.Placenta percreta may convert into massive obstetric hemorrhage, leading to shock, damage to the uterus, bladder, ureters, bowel, many more and ultimately death. In our case study there are 4 cases of placenta percreta. These cases were managed effectively by multidisplinary team approach. Tertiary center of rural/periphery required competent gynaecologist as placenta percreta require internal iliac artery ligation and peripartem hysterectomy immediately. And concept of multidisciplinary team approach should be followed for good outcome.

INTRODUCTION

Maternal and fetal morbidity and mortality from placentapercreta are understood and are associated with more demands on health resources. There is abnormally firmattachment of placenta to the uterine wall with the absence of deciduas basal is and incomplete development of Nitabuch's layer [1]. In placenta percreta, the villi reach through the myometrium penetrating up to the serosa, and may involve the adjacent structures [2 3]. Obstetric hemorrhage is the major cause of maternal morbidity and mortality. Placenta percreta is a type of placenta accrete spectrum. Incidence of percreta was 1 in 533 pregnancies for the period of 1982-2002 [4]. The incidence has increased from 0.12% to 0.31% in the last 30 years because of rise in Cesarean sections. [5] Out of all cases of Placenta accreta only 5% are of placenta percreta [6].

Placenta percreta may convert into massive obstetric hemorrhage, leading to shock, damage to the uterus, bladder, ureters, bowel, many more and ultimately death [7,8].

Ultrasonography (USG) is the basic investigation in screening females at risk of invasive placentation. Magnetic resonance imaging (MRI) is indicated for further management and making further line of management.

CASES

Case 1

1. A 29-year old woman, P5L4 with h/o previous 2 LSCS referred from periphery complaining bleeding PV and Retained placenta after vaginal delivery.
2. Routine investigations were done and hb was 8 gm%, BP=94\64mm Hg, PR=112\min
3. Per Abdomen, Uterus was atonic.
4. On per speculum examination, Active bleeding was present, on per vaginal examination, Placental bits were seen and was removed in piece meal as best possible with due precautions.
5. First conservative management of post partum Haemorrhage was tried, patient was taken to the operation theatre for removal of placenta under anesthesia. Pre-operatively 2 pint prbc were transfused. Placenta was adherent to lower uterine segment and some portion invading bladder serosa. Placenta was partially removed in piece meal as much as possible. On failure of conservative methods and haemostatic sutures, Peripartum subtotal hysterectomy was done. perioperatively 4 pints ffp's were given. Postoperatively patient was stable and mother and baby doing well on 9 th post op days.she was discharged on 10 th post op days.

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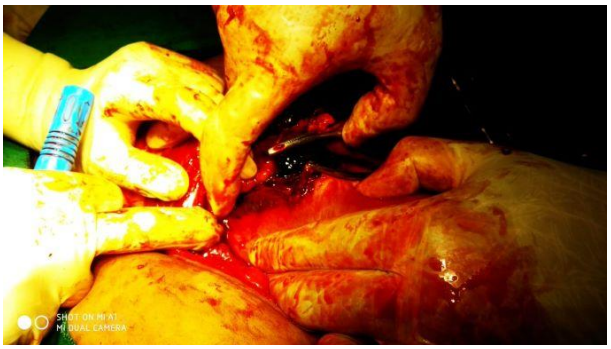
Case 2

1. A 23-year old, G3P2L2 with H/o 33weeks 4 days gestational age, with previous 1 LSCS was referred from a private hospital in view of Bleeding P/Vand pain abdomen. Routine investigations showed Hb 8.1gm%
2. Usg scan at 22 weeks showed complete placenta previa.
3. P/A: Uterus was 34weeks size, strong contractions present and FHR was present.
4. P/S: Active bleeding was present
5. Preoperatively 2 pint PRBC and 2 pints FFP's were transfused, 2 pints PRBCs were kept ready. High risk consent was taken of concerned risk.She underwent Emergency LSCS I/V/O Previous LSCS with Placenta previa. Per operatively placenta was reacing upto bladder serosa, LUS was not well formed and as soon as incision was put on LUS, patient collapsed suddenly. That might be pulmonary ermbolism.

Case 3

1. A 25-year old, G3P2L2 with h/o 37 weeks and 6 day gestational age and Previous 2 LSCS, With scan report showing complete placenta previa with placenta percreta and placental vessels extending till the bladder wall, came with complaints of bleeding P/v and pain abdomen.
2. P/A uterus was corresponding to 36 weeks with breech presentation, strong contractions were present.
3. P/S examination active bleeding was there.
4. On admission routine investigations were done and hb was found to be 8.6gm%.
5. Patient had an emergency LSCS i/v/o complete placenta previa. Per operatively, placenta was extending upto bladder serosa through uterine serosa.
6. Incision was given 2 finger width above the upper margin of the placenta.
7. Placenta swept through. Intra operative 250 ml of blood loss was there. After baby extraction, Bilateral uterine artery ligatition was done, bilateral ovarian vessal ligation was done. Selective and limited myometrial excision was done, which was involved through placental bed of anterior lower uterine segment. some tied sutures were taken on outer bladder serosa over placental attachment areas.
8. 3 Pint PRBC and 2 pint FFP was transfused intra operatively.
9. This patient did not required peripartem hysterectomy, as she responded conservative methods. Post operatively MTX (methotraxate) was given.
10. Patient was shifted to postoperative ward for monitoring and Post operatively 1pint PRBC and 2 pint FFP were transfused.
11. She was discharge on 9th post op days, as mother and baby both doing well.



Case 4

Placenta Percreta

1. A 30-year old G3P2L2 with h/o 25 weeks of gestation age and previous 2 LSCS came with scan report showing complete placenta previa. with chief complain of bleeding pv and pain abdomen. ANC profile was done and her haemoglobin was 6 gm %. First she was tried for conservative treatment and anaemia correction.
2. Due to hypotension ionotropes were started.2 pints FFPs and 2 pints PRBC transfusions were done pre-operatively and patient underwent laprotomy and proceed. After giving pfannestiel incision, during opening of abdomen, there was marked and thick adhesion.
3. The intraoperative appearance of the uterus and bladder morphologically resembled placenta percreta
4. Intra operatively there was placenta directaly attached to abdomen muscles and bladder serosa. There was almost frozen abdo pelvis also. Urgent call was sent to surgeon. Meticulous and necesory dissection was done. By through and through placenta reached to uterus and incision over uterus fetus was delivered. Bleeding was uncontrolled and all methods failed, intra operative 1000 ml of blood loss was there. Obstetric hysterectomy done. But obstetric hysterectomy was difficult and challenging because of adhesion.
5. Placenta attached to muscles was removed manually and some portions of muscles were excised due to adherent placenta.
6. Haemostatic sutures were taken over bladder serosa.
7. All stumps were checked and haomstasis were achieved
8. Abdomen drain was inserted.
9. Patient was shifted to ICU I/v/o hypotension and severe blood loss. Post operatively 1 pint PRBC, 2 pints FFP, transfusions were done and patient recovered drastically. Post operative period was uneventful and patient recovered and was fit for discharge within 7 days of the procedure.

DISCUSSION

Placenta accreta is a life threatening condition which causes massive haemorrhage necessitating Obstetric hysterectomy in majority cases. Multidisciplinary management at a tertiary care in this high-risk pregnancy should be sought with specific role defined for each specialty. Obstetricians are usually the first point of contact with the patient. Proper counseling, antenatal checkups, fetal scans are performed. They also decide the optimum timing of delivery. Radiologist helps in diagnosis, fetal scans. Blood bank personal helps by stocking and providing adequate blood products during surgery.

Urologists have a role in management of bladder involvement. Intraoperatively obstetrician performs Cesarean section, peripartem hysterectomy, internal iliac artery ligation, urologist takes care of the bladder, and radiologist helps in intraoperative embolization of internal iliac artery. Anesthetist and neonatologist also form important members of the team.Phsician perform their role in management and dealing of vitals and high risk factors.

Almost all cases in our case series had previous 1 LSCS or 2 LSCS. A study conducted by Silver RM *et al*, concluded incidence of placenta accreta spectrum with previous 0,1,2,3,4,5 caesarean sections are 0.24%, 0.31%, 0.57%, 2.31%, 2.33% and 6.74% respectively and the incidence of abnormal placentation with placenta previa with previous 0,1,2,3,4,5 lscs are 3%, 11%, 40%, 61%, 67% and 61 % respectively.9 From management purpose, choice of treatment should be carefully decided. She should be counselled properly regarding the risks of hemorrhage, and suboptimal outcomes in future pregnancies. Conservative management of morbid adherent placenta seems to be a good option even for resource-limited settings, but there must be a strict patient selection policy. Though it depends upon many conditions. The patient's ability to take decision for immediate admission to the hospital, their knowledge about the sickness, the value of a uterus-preserving option, the willingness for proper follow-up , and the availability of an established tertiary level emergency surgical access with transfusion facilities in any case of heavy bleeding are essential prior to conservative management. We were successful with both experiences including getting complete resorption and managing a near miss safely.

Sometimes in Placenta percreta with bladder invasion may require partial cystectomy. In one study of 54 cases of placenta percreta invading the bladder, partial cystectomy was performed in 24 of the 54 patients.10

In our study almost all cases were associated with placenta praevia.which was supported by Finberg and Williams.According to Finberg and Williams, around 75% of cases of placenta percreta are associated with placenta previa [11]. Fourth case was complicated as frozen pelvis with thick adhesion and placenta percreta. For that we performed peripartem hysterectomy and multiple blood transfusions. In majority of cases we underwent peripartem hysterectomy and multiple blood transfusion.

We required multidisplinary team approach for every case.
In periphery remote areas OBGYN should be well trained and exposed to manage such type of cases for timely and effective management of patients. Sometimes It is diagnosed accidentally during surgery or on antenatal ultrasound but a classical case presents it with painful vaginal bleeding, gross haematuria, and sometimes dull continuous pain in lower abdomen. With gray-scale ultrasonography and MRI techniques, the condition can be diagnosed as early as 10 weeks.12 The ideal timing for such evaluation of PAS is between 18 and 24 weeks of gestation. In many cases Methotraxate (MTX) is used as an adjuvant to expectant management with the aim of placental resorption. Uterine conservation is also considered when hysterectomy is thought to have an unacceptably high risk of hemorrhage or injury to other organs, which may be mitigated by leaving the placenta in situ.14.Life should not be compromised with respect to save the uterus. In many studies it has been proved that conservative approaches did not prove better outcome.(15, 16) Alternative approach was suggested, Triple P procedure was described by Chandraharan E and co-workers as a conservative surgical alternative to peripartum hysterectomy for placenta accreta that entails perioperative placental localization, pelvic devascularisation, placental non-separation with myometrial excision.17 but it should be

Decision to terminate pregnancy should be taken timly to avoid complications. In one study it has been shown that Delivery should not to exceed 34-35 weeks of gestation because it significantly increases risk of severe hemorrhage [18].

Management by a multidisciplinary team and at established tertiary care facility improves outcome and lower complication rates. Preoperative bilateral occlusion of internal iliac artery significantly decreases blood loss. It has been supported by many studies. Dubois *et al*. recommended prophylactic bilateral internal iliac ligation by various method. Or preoperative cannulation of the hypogastric arteries with an occlusion balloon, and intraoperative embolization to decrease blood loss during hysterectomy [19]. Blood loss with bilateral internal artery management is around 45% less in our study comparable to study by Clausen *et al*. {20].

In our cases we performed in two cases peripartem hysterectomy as future fertility was not desired and condition would have been not detiriorated in conservative approach . And remaining two cases we ligate pelvic arteries and underwent caesarean section. Placenta previa is a known risk factor of abnormal placentation along with the history of previous LSCS [21} In maximum cases we did massive transfusion and pelvic vessal ligation prophylactically so as to replace and reduce enormous amount of blood loss. And the positive and encouraging outcome in this case adds to the claim that surgical management avoids risks of delayed and emergency hysterectomies.

The risk association varies in different series. Wu *et al*. concluded that one or more prior cesarean deliveries and placenta previa increase the incidence of placenta accreta [22]. Placenta praevia and placenta percreta are associated together with many cases. The presence of placenta previa with one prior cesarean delivery increases the risk of placenta accreta by 24% [23].sometimes Cystoscopy or intentional cystotomy at surgery may be helpful for decding the degree of bladder, and possible ureteral, involvement.11,12 Many times OBGYN team requires urologist involvement for moderate to severe bladder involvement cases.

Whereas placenta previa in a patient with three or more prior cesarean sections increases the risk by 67% [23].

CONCLUSION

Tertiary center of rural/periphery required competent gynaecologist as placenta percreta require internal iliac artery ligation and peripartem hysterectomy immediately. And concept of multidisciplinary team approach should be followed for good outcome.

Conflict of Interest : NA

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