



PLACENTA PERCRETA WITH BLADDER INVASION: A CASE REPORT

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ABSTRACT

Placenta previa with placenta percreta invading bladder is a very rare obstetrical complication. Placenta percreta Placenta previa is one of the most serious complications of placenta previa and is frequently associated with severe obstetric haemorrhage usually necessitating hysterectomy. Because the rate of cesarean sections is increasing in developed countries, the incidence of placenta percreta is also rising. We present a case of 37 year old Indian woman G3P1L1A1 with previous LSCS (done for cephalon pelvic disproportion) with transverse lie with uncontrolled Hypothyroidism with bronchial asthma in latent phase of labour, managed by emergency LSCS followed by subtotal hysterectomy to prevent the massive haemorrhage. Multidisciplinary management in a specialized centre capable of providing massive transfusions can improve outcomes for the mother and baby. This team should include a surgeon specialized in pelvic surgery, an anaesthesiologist experienced in obstetrics, a skilled urologist, a neonatologist, a blood bank team capable of administering multiple blood products, and an intensive care facility where the patient can be monitored.

KEYWORDS : Placenta previa, Placenta percreta, Bladder invasion

INTRODUCTION:

Adherent placenta accounts for 7%–10% of maternal mortality cases worldwide.¹ Placenta percreta is a condition with a high surgical risk and generally requires an obstetric hysterectomy to control massive haemorrhage.² Mortality rate of 5.6% to 10% secondary to haemorrhage and infection.^{3,4} Placenta percreta invading bladder is extremely rare with an incidence of 0.3 to 1 per 10000 births.⁵ The incidence of placenta accreta has dramatically increased due to increasing Caesarean section rates.^{5,6} Other risk factors associated with placenta accrete are multiparty (>6 pregnancies), placenta previa, prior intrauterine infections, elevated maternal serum alphafetoprotein and maternal age more than 35 years.⁷ The maternal mortality risk may reach 7 % and the extensive surgery related morbidities include massive transfusions, infections, urologic injuries and fistula formation.² In literature, different management strategies have been mentioned, varying from conservative to radical approaches depending upon the extent of placental invasion, involvement of other organs, intraoperative haemorrhage and expertise of the surgeon.⁸ We present a case of placenta percreta diagnosed intraoperatively, less radical surgical procedure was adopted with better outcome.

CASE REPORT:

A 37 year old Indian woman G3P1L1A1 with previous LSCS (unbooked) came in the OPD of AIIMS Bhopal on 17/08/17 at 2 PM, in the latent phase of labour with transverse lie. She underwent emergency LSCS after explaining all risk and consequences related to mother and fetus. After opening the abdominal wall, intra-abdominal inspection showed the presence of multiple large vessels at level of the lower uterine segment, under the peritoneum and in the area of the bladder. Bladder was dissected from the uterine scar and was pushed down and subsequently a transverse uterine incision was made on the lower uterine segment. After delivery of congenitally malformed baby, spontaneous placental extraction failed. Placenta could not be separated from the uterus as it was penetrating the uterus and attached to the bladder and the placental tissue was manually removed as far as possible. Patient underwent haemorrhagic shock due to severe Postpartum haemorrhage. The decision of Subtotal hysterectomy was made with the consent of relatives for saving the life of patient. The abdomen was closed using a regular technique after putting a drain in peritoneal cavity. During surgery the patient developed disseminated intravascular coagulation and hemodynamic instability. A massive transfusion protocol was initiated. The patient was managed with vasopressors, blood products, and fluid replacement. Total 14 PRBC+17 FFP+ 6CRYOPPT were transfused intra and postoperatively. Postoperatively, she was transferred to the intensive care unit and was on mechanical ventilator for 2 days. On second day patient developed abdominal distension with no audible bowel sounds. Dressing was fully soaked with haemorrhagic fluid. Bedside ultrasound showed a significant amount of fluid collected in the abdominal cavity which was cleared from the drain by her posture. She stayed in ICU for 5 days than she was shifted to ward for further

management. She was given single dose of Inj Methotrexate 50 mg for remaining placental tissue resorption. She developed intermittent fever for that all necessary investigations were done. She was Dengue positive and had Urinary tract infection. Patient was treated with multiple broad spectrum antibiotics according to the report of culture and sensitivity. Patient was sickle cell positive in single report of CBC for which HPLC test was done which came out to be negative. Patient had intermittent haematuria for which CT urography with cystogram was done on 29/08/17 which showed posterosuperior rent of 3.5 mm in the dome of urinary bladder communicating which the organized thrombus on the top of the stump of the lower segment of uterus leading to contained spillage of contrast. Urinary indwelling catheter was kept for 25 days with intermittent flushing. Her intermittent haematuria gradually stopped over 6 weeks post partum and she was discharged in a good condition after 48 days of admission. She was advised to return back after 3 months postoperatively for follow up. She was a diagnosed case of bronchial asthma 3 years treated on Asthalin inhaler intermittently. She was diagnosed to be hypothyroid in 5th month of pregnancy and was on 100 µgm of thyroxine daily. She took iron and calcium supplementation from anangwadi along with 2 doses of inj TT in her 2nd trimester. She took multiple abortifacients including MTP kit in the first trimester for termination of the present pregnancy. Patient's ultrasound at 20 weeks showed marginal placenta previa. She was advised anomaly scan and doppler but was not done. Newborn was female of 2.2 Kg weight with immediate cry with Torticolis, Imperforate anus, CTEV on Right and on Left side CTEV with short tibia. The baby was referred to pediatric surgeon for possible corrections of anomalies.

DISCUSSION:-

Placenta accreta is one of the most serious obstetric emergencies. A high index of suspicion should be held with mothers who have significant risk factors despite having a normal ultrasound scan. Predisposing factors besides from previous caesarean sections include all previous myometrial damage from myomectomy, manual removal of the placenta, complicated uterine curettage, and leiomyomas.⁹ Adherent placenta encompasses a spectrum of abnormal placentation in which defects in the decidua basalis cause the placenta to adhere to or invade the myometrium. In these cases, there is no clear plane of cleavage between the placenta and the uterus. The incidence of abnormal placentation has increased from one in 2500 in the 1970s and 1980s to one in 533 in 2000.⁶ This area of the uterus has a comparatively rich blood supply and may account for the abnormal occurrence of placental implantation in the lower uterine segment.¹⁰ Placenta percreta can lead to bowel injury, bladder injury, life-threatening haemorrhage, coagulopathy, amniotic fluid embolism, and peripartum hysterectomy. It has been associated with a maternal morbidity rate of 9.5% and a perinatal mortality of 24%.¹¹ The incidence of peripartum hysterectomy is quoted as 0.24–1.4 per 1000 births. Adherent placenta as a major indication for peripartum hysterectomy has risen from 5.4% to 46.5% over the last four

decades.¹² The diagnosis of abnormal placentation is histological, and reveals the absence or poor development of the decidua basalis associated with varying extents of trophoblastic villus invasion of the myometrium. However, the sole use of histology to diagnose these conditions remains debatable.¹³ The early diagnosis of placenta previa is usually made by ultrasound,¹⁴ although in recent years there has been an interest in the use of MR imaging.^{14,15} Gray-scale ultrasound and color Doppler imaging are the first-line imaging modalities for the diagnosis of placenta accreta. MRI is used as an adjunct tool when sonographic examination is equivocal or when the placenta cannot be reliably visualized on sonography.¹⁶ Overall, gray scale ultrasonography is sufficient to diagnose placenta accreta, with a sensitivity of 77–87%, specificity of 96–98%, a positive predictive value of 65–93%, and a negative predictive value of 98. The use of power Doppler, color Doppler, or 3D imaging does not significantly improve the diagnostic sensitivity compared with that achieved by gray scale ultrasonography alone.⁹ Ultrasonography findings of accreta and percreta include loss of myometrial interface, retroplacental clear space, reduced myometrial thickness, turbulent placental lacunar flow, intraplacental lacunae, and an irregular bladder wall. Placental bulging or invasion into the bladder is also often seen. MRI is more accurate in diagnosing a posterior placenta, placenta percreta, and for imaging morbidly obese patients.¹⁴ In 2012, the National Institute for Health and Clinical Excellence in the UK reported that MRI is more accurate at identifying adherent placenta than ultrasonography.¹⁷ Despite the early and accurate prenatal diagnosis, hysterectomy remains the most common surgical procedure in cases of PPH for placenta previa accreta.¹⁸ There are many considerations for management depending on the severity of haemorrhage, including life-saving hysterectomy. The RCOG considers Cell salvage, or autologous blood transfusion, to be appropriate in patients with estimated blood loss over 1500mL.¹⁹ The management is usually an elective cesarean delivery and hysterectomy, but this approach often causes massive haemorrhage and may cause injury of adjacent organs due to the morbidly adherent placenta.²⁰ Delayed trans-vaginal removal of the placenta has also been described.²¹ In a selected group of patients, erythropoietin injections and/or simultaneous parenteral iron infusions may be needed preoperatively.¹⁴ A multidisciplinary approach by a team of experienced obstetricians, anaesthesiologists, nurses, interventional radiologists, neonatologists, and urologists, as well as a blood bank, ensures the best outcomes.²² Preoperative placement of ureteral stents can help identify the ureters, allowing more rapid completion of the hysterectomy.²³ The management of placenta percreta follows one of two options, radical surgery (hysterectomy) or conservative management with repair of the rent. [7] Traditionally, abdominal hysterectomy is the treatment of choice for placenta percreta and indicated in cases of severe haemorrhage.²⁴

CONCLUSION:-

Management of placenta percreta by a multidisciplinary team in a hospital capable of Rapid diagnosis, blood product replacement and emergency laparotomy with caesarean hysterectomy is vital in reducing the morbidity and mortality associated with this condition. Obstetricians and clinicians should be vigilant in the diagnosis of adherent placenta, even when ultrasonography results are negative. Advances in ultrasound have led to improved ability to diagnose this condition. Dual visual modalities such as ultrasound and MRI in evaluating high risk women with previous uterine damage. Evaluation of patients in high-risk groups, a multidisciplinary team approach, referral to tertiary centre with expertise in MRI scan should be considered for accurate antenatal diagnosis and improved outcome

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