Case Report

Successful Conservative Approach to Placenta Previa Percreta with Bladder Involvement

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Abstract

Placenta previa percreta is an abnormal penetration of uterine wall reaching the serosa of uterus with a possible penetration into the adjacent pelvic organs like bladder, ureters, gut and abdominal wall. It has serious consequences leading to severe maternal morbidity and mortality. The incidence has markedly increased over the last few years due to increase in caesarean section rate. Sonographic and MRI markers are very helpful in diagnosis and timely management. Multidisciplinary approach is mandatory for a positive outcome. A 32 years old female, G4 P2 A1, presented to us with history of antepartum haemorrhage at 36 weeks gestation. She had previous two caesarean section and one evacuation for miscarriage. She had no antenatal record and her hemoglobin was 5gm%. Intraoperatively it was found that placenta had invaded dome of bladder, lower segment of uterus both anteriorly and posteriorly. Placenta was left in situ, bilateral internal iliac ligation was done. Methotrexate was given postoperatively. Patient later developed vesic-outerine fistula which was repaired.

Key Words: placenta previa percreta, Caesarean section, Conservative management, Vesico-uterine fistula.

Introduction

The incidence of morbidly adherent placenta has markedly increased over the last few years from 1/7000 deliveries to 1/2500 deliveries due to increase in caesarean section (CS) rate and uterine curettage. Placental trophoblastic villi adhere to uterus abnormally due to absence of decidua basalis. Its attachment to myometrium is called placenta accreta, penetration of myometrium is called placenta increta and penetration reaching the serosa with possible extension into adjacent organs is called placenta percreta. The later type may result in severe maternal morbidity and mortality.[1] Ultrasound Doppler and MRI are very sensitive in picking the extent of penetration. Sonographic markers start as early as first trimester with low uterine implantation of a gestational sac, multiple

vascular lacunae within the placenta with turbulent flow, loss of the normal hypoechoiec retro placental zone, and abnormality of the uterine serosa-bladder interface. MRI shows hyper intense and heterogeneous mass, focal thinning of myometrium and interruption of the junctional zone.[2] The complications include severe life threatening haemorrhage, sepsis and septic shock, peritonitis, uterine necrosis, fistula, injury to adjacent organs, acute pulmonary oedema, acute renal failure, deep venous thrombosis, pulmonary embolism, caesarean hysterectomy, perinatal death due to prematurity and maternal death.[1,3]

For successful outcome with placenta previa percreta, multidisciplinary approach is necessary. A regular antenatal checkup with high index of suspicion for anterior placenta in a scarred uterus should be done. When adherence of placenta is given on scan, it should be assigned a higher type than lower one. Patient has to be counseled about the possible consequences because in underdeveloped countries, they still opt for home deliveries to avoid caesarean. Anemia should be prevented and if present, it should be treated in time.

Hysterectomy had been the treatment choice for long time, but conservative approach has found place in recent times. The options include uterine artery embolization, internal iliac artery ligation, uterine packing, balloon tamponade, aortic ballooning, and methotrexate according to availability of equipments.[4]

We present a case of placenta previa percreta in which conservative approach was successful. The major complications faced were haemorrhage and vesico-uterine fistula.

Case Report

A 32 years old, G4 P2 A1, presented in emergency with history of antepartum haemorrhage and labour pains, carrying a 36 weeks pregnancy. She had no antenatal record. Previous two deliveries were by CS and both were females. The surgeries were done in emergency as patient had taken trial at home. One year back she had a miscarriage for which evacuation and curettage was done. This time also she tried to take trial at home but when profuse bleeding started, she was brought to hospital. On investigating, her hemoglobin was 5gm% and blood group was B-ve. There was frank hematuria. After initial resuscitation abdomen was opened. It was observed that the placenta had penetrated not only the lower segment anteriorly but also the dome of bladder. There were huge vessels running in the lower half of uterus. The uterus was opened near the fundus as we could not afford loss of any more blood. A live male baby of 2300gms was delivered as breech. Ten units of blood were transfused to patient. On exteriorizing the uterus, placenta was found to have invaded the posterior wall. It was considered wise to leave placenta in situ as its removal was impossible and hysterectomy would not have helped much. Internal iliac artery ligation was done to stop ongoing haemorrhage. Bilateral tubal ligation was done.

During postpartum period, she was given broad spectrum antibiotics. Injection methotrexate, 50mg IM was given as four doses with rescue folinic acid. She passed small placental pieces vaginally over time but did not bleed. Hematuria did not settle for two weeks. She was monitored with serial serum B-hcG, and sonography for placental volume. The

placental volume reduced from 350gms initially, 192gms at one week, 134gms at two weeks and 62gms at third week. Serum B-hcG was 93.7mU/ml at third week. All other relevant investigations were normal. She was discharged after three weeks and called for follow-up. She showed up after two weeks with complaint of leaking urine through vagina. As expected, she had developed vesico-uterine fistula confirmed on investigations. She was referred to fistula repair center where successful repair was done. Her menstrual cycles resumed after six months. Patient is now healthy and therefore discharged from follow-up visits.

Discussion

Morbidly adherent placenta is a challenging situation for any obstetrician. Its incidence has increased in recent times due to increase in caesarean section rate and surgical evacuation of uterus. In developed countries, it is managed in time due to proper antenatal schedules, availability of ultrasound machines and MRI round the clock in hospitals, timely involvement of multiple related disciplines and efficient blood banks. Unfortunately due to deficiency of all these factors in underdeveloped countries, morbidly adherent placenta is mostly diagnosed late or during surgery, therefore making it a life threatening situation.

Ortiz-Villalobos RC et al[5] conservatively managed a case of placenta previa percreta with invasion of the bladder, ureters and abdominal wall. The patient was 28 years old with previous two caesareans. She was diagnosed on ultrasound. Hysterectomy of fundus was done at 35 weeks, but they had to convert it to complete procedure later due to complications. Khan M et al[1] also chose conservative treatment with 50mg methotrexate IM weekly to resolve placenta. Tikkanen M et al[6] had to do hysterectomy three weeks later due to haemorrhage. Breborowicz GH et al[7] chose to leave placenta in situ as it was invading bladder. A giant vasicoutrine fistula formed. Methotrexate was given. Placenta was removed transvaginally 11 weeks later.

Aggarwal R et al[8] reviewed 20 cases of MAP. 70% had previous scar, 60% presented with haemorrhage, 20% had retained placenta, 15% bladder repair was done and there was 30% maternal mortality. Hysterectomy rate was 85% showing that they preferred conservative treatment to a lesser extent. Sumigama S et al[9] reviewed the hospital data for eleven years. There were 18 placenta increta and 5 percreta. 37% had previous scar. They had a stepwise approach. First ceasarean was done, placenta was left in situ, uterine artery embolization was done and then hysterectomy. It helped a lot in reducing blood loss.

Whenever a devastating situation comes across, surgeon has to be vigilant and make a decision that suits his circumstances. Sparic R et al[10] attempted to remove adherent placenta. It resulted in bladder damage and rupture of previous scar. Therefore hysterectomy had to be done. They quote that anticipation and surgeon's judgment are leading factors for surgery.

Caesarean rate increase is directly proportional to increase in adherent placenta. It should be picked as early as possible to prevent mother from morbidity and mortality. Whenever placenta is anterior with a scarred uterus, it should be considered as adherent and managed vigilantly to avoid unnecessary haemorrhage.

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