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A case report of placenta percreta managed by elective cesarean hysterectomy

Siraj Fathima T, Shanthi C, Gayathiri M

Department of Obstetrics and Gynaecology, Madurai Medical College, Madurai

Abstract

Placenta percreta is a rare pregnancy disorder in which placenta penetrates the uterine myometrium and can invade surrounding organs. Because the rate of cesarean sections is increasing, incidence of placenta percreta is also rising. This condition significantly increases the risk of maternal and fetal morbidity and mortality, and is currently the most common indication for peripartum hysterectomy. Multidisciplinary management in a specialized center capable of providing massive transfusions can improve outcomes for the mother and the baby. The team should include experienced obstetrician, anaesthetist , urologist, vascular surgeon, blood bank team. In this report , we present a case of a patient with preoperatively diagnosed placenta percreta and discuss the relevant obstetrics and anaesthetic management methods ,diagnostic & transfusion protocols.

Keywords : placenta percreta, peripartum hysterectomy, reducing mortality.

Introduction

Adherent placenta accounts for 7 to 10% of maternal mortality worldwide. Placenta percreta is a rare type of adherent placenta that when not diagnosed early leads to severe maternal morbidity. Previous cesarean section and intrauterine surgery are the most common risk factors for adherent placenta. With the increase in cesarean sections there is an increase in the incidence of placenta percreta. Placenta percreta when diagnosed antenatally, there is a decrease in maternal moratality and morbidity. Here, we discuss a case of placenta percreta diagnosed antenatally, and managed by elective cesarean hysterectomy.

Case report

A 22 years old G2P1L1 previous LSCS/ last child birth 2 years back/ 36 weeks gestation, referred to our tertiary care centre as type 3 placenta praevia. On admission patient general condition was stable, vitals normal, no bleeding pervaginum. Ultrasonogram showed placenta posterior, lower margin completely covering the internal os & extending into anterior wall. The anterior wall showed altered echotexture & multiple cystic spaces which showed high velocity flow – possibility of bladder wall invasion. MRI abdomen & pelvis was taken then which showed evidence of hypointense foci & heterogenicity noted in the right lateral & posterior aspect of placental attachment – possibility of adherent placenta/ percreta less likely.Patient was planned for elective cesarean/ hysterectomy at 37 completed weeks. Her liquor was reduced (AFI -6). Adequate blood products reserved & consent obtained for cesarean hysterectomy, risks explained to the patient & her attenders. With a team of anaesthesist, vascular surgeon, urologist and experienced obstetrician, under general anaesthesia - abdomen opened with midline incision. Placenta was seen penetrating the serosa of uterus in right lateral wall. An alive,term male baby was delivered via classical cesarean section. Placenta did not separate in the right lateral & posterior aspect – so,planned for closure of uterus with placenta insitu and post-op methotexrate. But torrential bleeding was seen from the placental site – hence proceeded with cesarean hysterectomy. Urologist called over – bladder & ureteric involvement ruled out. Intra operative blood loss was 3 litres. 2 units whole blood, 3 units packed cells & 4 units FFP was transfused. Post operatively, patient recovered well and discharged on 10th post-operative day.

CLASSIFICATION:
PLACENTA ACCRETA = villi attached to myometrium.
PLACENTA INCRETA = villi invade the myometrium.
PLACENTA PERCRETA = villi penetrate the myometrium and to or through serosa.
It may be total (involves all lobules) or focal (part of single lobule)
INCIDENCE : increasing because of liberalization of cesarean section.

1: 2500 in 1980 vs
1 : 533 in ACOG 2012.

Intractabl e PPH & emergency peripartum hysterectomy causes 8% of death due to haemorrhage among 10000.

RISK FACTORS:

The two most important risk factors are
1.Associated placenta preavia
2. Prior cesarean section

Or a combination of two.

The classical cesarean section incision increases the risk for subsequent accrete placenta.Decidual formation may be defective over a previous hysterectomy scar/D&C scar/myomectomy scar.
Incidence in cesarean scar pregnancy = 1: 2000.

CLINICAL PRESENTATION,DIAGNOSIS:

During 1st and 2nd trimester, the symptoms & signs are due to co-existent placenta preavia ie bleeding p/v. when thre is no associated placenta preavia, accrete may not be diagnosed until the third stage of labour.

ANTEPARTUM USG:

GREY SCALE USG Features of ACCRETA :

The findings will be

1. Abnormal placental lacunae
2. Loss of retroplacental echolucent zone
3. Irregular retroplacental echolucent zone
4.Thinning or disruption of hyperechoic serosa/bladder
5.Presence of focal exophytic masses invading interface between serosa and urinary bladder.

COLOUR DOPPLER FEATURES OF ACCRETA ;

The findings will be
1. Diffuse or focal lacunar flow
2. Vascular lakes with turbulent flow on colour flowmetry (peaksystolic velocity > 15 cm/sec)
3. Hypervascularity of serosa-bladder interface
4. Markedly dilated vessels over peripheral sub-placental zone.

3D POWER DOPPLER FEATURES OF ACCRETA ;

The findings will be
1.Numerous coherent vessels involving whole function of uterine serosa & urinary bladder (basal view)
2. Hyper vascularity (lateral view)
3.Inability to distinguish between cotyledonal & intervillous asculations, chaotic branching of vessels, detour vessels (lateral view)

MRI FINDINGS ;

1.Uterine bulging
2.Heterogenous signal intensity within the placenta
3.Dark intraplacental bands on T2 weighted images

MANAGEMENT :

Ideal institutional delivery with the availability of experienced obstrician, anaesthesiologist, urologist, vascular surgeon & blood bank facilities.

ACOG recommends planned tertiary care delivery.

1.TIMING ; ACOG recommends
Individualization of time of delivery or

34 completed weeks or

Wait until 36 completed weeks.

2. PRE-OPERATIVE ARTERIAL CATHETERISATION

This reduces the need for cesarean hysterectomy .in order to mitigate the blood loss, balloon tipped catheter is advanced into internal iliac artery & inflated after delivery to occlude pelvic blood flow and to aid placental removal & hysterectomy.

3.CESAREAN DELIVERY AND HYSTERECTOMY

Conclusion:

Incidence of percreta is increasing with rise in cesarean section rates. Preoperative diagnosis is the key to save the mother. If diagnosed introperatively, shifting to tertiary centre and availability of blood products makes the management difficult. All cases of placenta previa with previous scar in the uterus should do an MRI.

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