

# Management of morbidly adherent placenta

Ana Pinas-Carrillo  
Edwin Chandraran

## Abstract

Morbidly adherent placenta (MAP) or abnormal invasion of the placenta (AIP) refers to an abnormal invasion of the placental tissue (trophoblasts) into uterine myometrium, with or without the perforation of the uterine serosa. AIP is associated with significant maternal morbidity and a reported worldwide maternal mortality of 7–10% secondary to massive obstetric haemorrhage and/or injury to adjacent pelvic organs. Current management options for this potentially life-threatening condition include radical surgery, such as elective peripartum hysterectomy with or without bowel/bladder resection or ureteric re-implantation (for placenta percreta infiltrating these organs), and conservative surgical measures such as myometrial compression sutures with uterine balloon tamponade.

Intentional retention of the placenta (IRP) is an option where radical procedures are not appropriate or are refused by the patient in view of a desire for future fertility. Unfortunately, it may lead to serious maternal morbidity and mortality including septic shock and secondary haemorrhage.

A new conservative surgical technique called the ‘Triple-P Procedure’ involves *peri-operative* placental localization and delivery of the fetus via transverse uterine incision above the upper border of the placenta, *pelvic* devascularization and *placental* non-separation with myometrial excision and reconstruction of the uterine wall. It has been described as a safe and effective alternative to intentional retention of the placenta or peripartum hysterectomy.

**Keywords** accreta; increta; morbidly adherent placenta; percreta; peripartum hysterectomy; Triple P Procedure

## Introduction

The term morbidly adherent placenta (MAP) refers to the abnormal invasion of trophoblastic tissue beyond the decidua basalis into the uterine myometrium, the uterine serosa or even beyond, involving adjacent pelvic organs. The currently accepted terminology by the European Study Group for ‘placental adhesive disorders’ (PAD) is ‘Abnormal Invasion of the Placenta’ (AIP). Therefore, the authors have used AIP instead of MAP throughout the remainder of this article to ensure consistency and compliance with the accepted terminology. Depending on

the degree of the trophoblastic invasion, AIP is classified into accreta (placenta invading <50% of the myometrium), increta (invading >50% of the myometrium) and percreta (the placenta perforates the uterine serosa and spreads to other pelvic organs).

The main risk factor for AIP is previous damage to the protective uterine decidua secondary to caesarean section, myomectomy, repeated curettage and previous uterine infection (endometritis). Damage to the decidua basalis allows the invasion of the placental tissue deeper into the myometrium and beyond (Figure 1). It is also believed that scar tissue may create a relatively hypoxic environment which may act as a stimulus for trophoblastic invasion.

The incidence has progressively risen worldwide from one in 2500 pregnancies to approximately one in 500 currently, mainly due to the increasing rates of caesarean section. According to the recent national case-control study using the UK Obstetric Surveillance System (UKOSS), the odds of having AIP was increased in women who had a previous caesarean delivery (adjusted odds ratio (aOR) 14.41, 95% CI 5.63–36.85), other previous uterine surgery (aOR 3.40, 95% CI 1.30–8.91), an IVF pregnancy (aOR 32.13, 95% CI 2.03–509.23) and placenta praevia diagnosed antepartum (aOR 65.02, 95% CI 16.58–254.96). The study also found raised odds of AIP associated with advanced maternal age in women without a previous caesarean delivery (aOR 1.30, 95% CI 1.13–1.50 for every one year increase in age from 35 years).

Clinicians should have a high index of suspicion of AIP in the presence of previous caesarean section and an anterior placenta, especially if it is reported as low lying or praevia. Routine ultrasound and Doppler scan can demonstrate the classical features of placental lacunae, thinning of the myometrial border and disruption of the posterior wall of the bladder. Additional imaging such as Magnetic Resonance Imaging (MRI) scan is not routinely indicated but may be useful if the placenta is posterior, or in helping to determine the extent of lateral extension of the placental tissue into the broad ligament, to exclude ureteric or bowel involvement respectively.

Management options include peripartum hysterectomy (radical) with or without resection and repair of other involved organs; expectant management (intentional retention of the placenta or IRP); and the ‘Triple P Procedure’ as a conservative surgical alternative.

## Clinical case

Ms E.M., a 35 year old woman on her third pregnancy, was referred to the Regional Referral Service for AIP at St George’s University Hospitals NHS Foundation Trust, London, from her local hospital, at 32 weeks of pregnancy. She had a history of two previous caesarean sections, the last one was due to placenta praevia. She had been diagnosed by ultrasound with a placenta anterior praevia and suspected placenta percreta at the local hospital.

On admission, a repeated ultrasound and Doppler confirmed the diagnosis of anterior placenta praevia and percreta, invading the posterior wall of the bladder. Fetal growth and Dopplers were normal.

The diagnosis and management options were explained to the patient, including radical surgery (elective peripartum hysterectomy with bladder resection and repair), expectant management with intentional retention of the placenta (IRP), and the ‘Triple P

**Ana Pinas-Carrillo** LMS CCT Ob/Gyn (Spain) DipFM (UK) is a Consultant Obstetrician at St. George’s University Hospitals NHS Foundation Trust, London, UK. Conflicts of interest: none declared.

**Edwin Chandraran** MBBS MS (Obs & Gyn) DFSRH DCRM MRCOG FSLCOG is Labour Ward Lead Consultant at St. George’s University Hospitals NHS Foundation Trust, London, UK. Conflicts of interest: none declared.

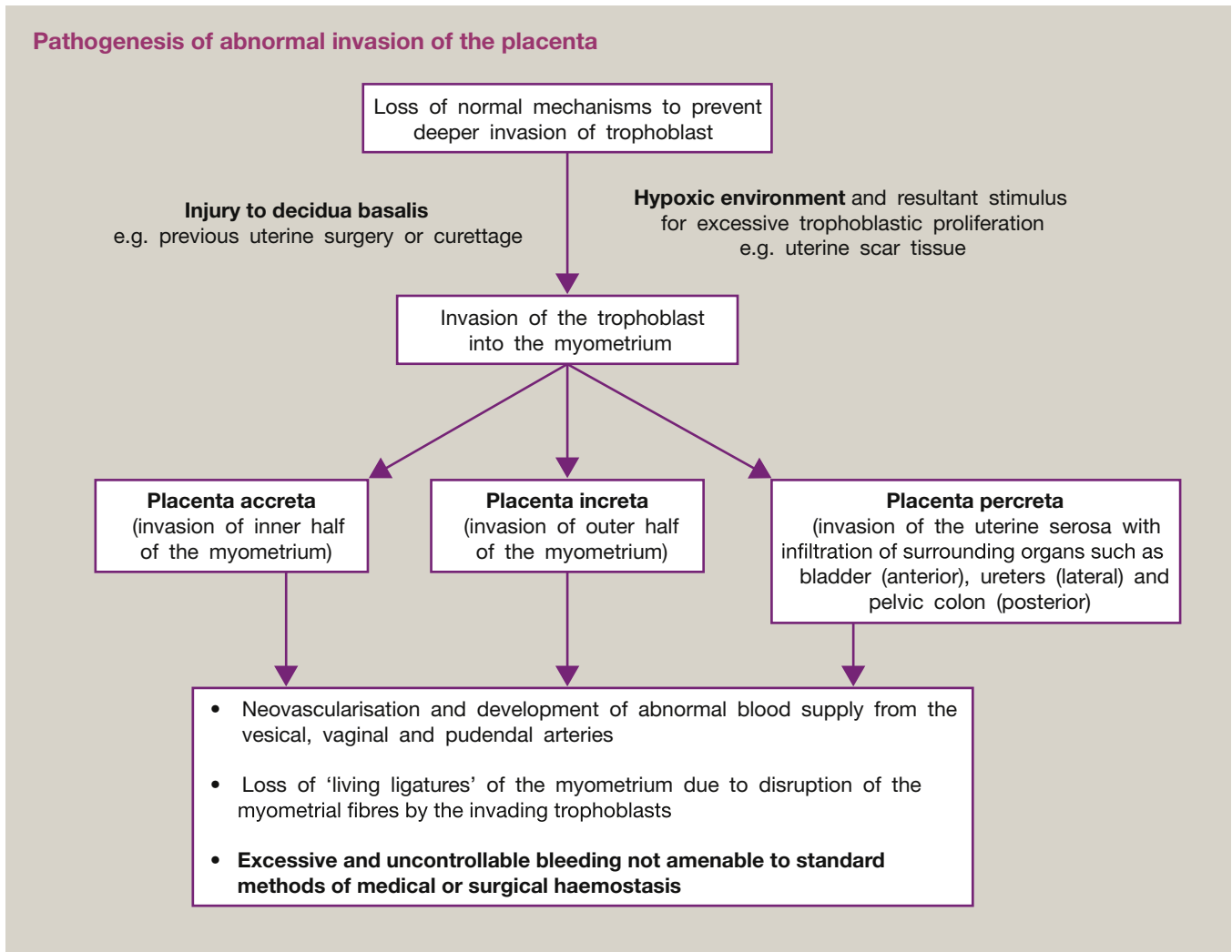


Figure 1

Procedure' (peri-operative placental localization, pelvic devascularization and placental non-separation and myometrial excision). The advantages and risks of each option were extensively discussed with the patient and she opted to have the Triple P Procedure and bilateral tubal sterilization.

Ms E.M. understood the need for interventional radiology prior to the surgery to perform pelvic arterial balloon occlusion (and eventual embolization if needed). She was counselled extensively and an informed consent was obtained for the use of cell salvage, likely need for multiple blood transfusion and possible peripartum hysterectomy. She was informed of the possibility of Intensive Treatment Unit (ITU) admission post-operatively if clinically required. A local individualized care plan (Figure 2) was completed.

Ms E.M. underwent an elective Triple P Procedure and bilateral tubal sterilization at 35 weeks of gestation. The total blood loss was 1.5 L. The diagnosis of a major anterior placenta praevia infiltrating the bladder was confirmed during the surgery and subsequently by the histopathological examination of the resected myometrial tissue (Figure 3). During the operation, local haemostatic agent (PerClot) was used and 300 mL of blood

collected from the cell saver was transfused. She did not require any further blood transfusion or uterine artery embolization. The balloons were deflated 6 hours after the surgery and the pelvic arterial catheters were removed after 24 hours. The post-operative period was unremarkable and she was discharged home four days after delivery on oral antibiotics.

On discharge, her haemoglobin was 9.4 g/dL and  $\beta$ hCG 2350 IU/L. Outpatient follow up 6 weeks after the procedure showed absence of any placental tissue invading the urinary bladder and a normal appearance of the uterus and endometrium on transvaginal ultrasound. Her haemoglobin level was 11.1 g/dL and  $\beta$ hCG was undetectable ( $<0.5$  IU/L).

### Discussion

Abnormal invasion of the placenta (AIP) has been reported to be associated with high maternal morbidity and a worldwide mortality rate of 7–10%. Timely and accurate diagnosis, systematic multi-disciplinary planning, and consideration of all management options based on the nature and site of placental invasion are crucial to ensure patient safety and to achieve good maternal and perinatal outcomes.

Download English Version:

<https://daneshyari.com/en/article/3966488>

Download Persian Version:

<https://daneshyari.com/article/3966488>

[Daneshyari.com](https://daneshyari.com)