# PLACENTA PRAEVIA AND PLACENTA ACCRETA

## DEFINITIONS

Placenta praevia exists when the placenta extends wholly or partly into the lower segment of the uterus. If it lies over the cervical os, it is considered major placenta praevia; if not then minor praevia exists.

Morbidly adherent placenta includes placenta accreta, increta and percreta as it penetrates through the decidua basalis then through the myometrium. For ease of description the term accreta is used for all these conditions.

## INCIDENCE

Placenta praevia occurs in 0.3-0.5% of all pregnancies. The incidence of placenta praevia and of placenta accreta along with associated complications is increasing due to increasing incidence of caesarean section combined with increasing maternal age.

## SCREENING AND DIAGNOSIS

### CLINICAL SUSPICION

While clinical acumen remains vitally important in suspecting and managing placenta praevia, the definitive diagnoses of most low-lying placentas is now achieved with ultrasound imaging.

Clinical suspicion of placenta praevia should be considered in any woman with painless and unprovoked vaginal bleeding after 20 weeks of gestation. At term, a high presenting part or an abnormal lie with painless and unprovoked bleeding should raise a high suspicion for placenta praevia. This should be considered irrespective of previous imaging results and where possible prior imaging should be reviewed. It is good practice whenever possible to undertake further imaging to confirm the location of the placenta.

### ULTRASOUND IMAGING

Anomaly scan should include placenta localisation. If there is suspicion of low-lying placenta, transvaginal scan should be performed to confirm the diagnosis.

Transvaginal ultrasound is safe in the presence of placenta praevia and is more accurate than transabdominal ultrasound in locating the placenta.

A further transvaginal scan is required for all women whose placenta reaches or overlaps the cervical os at their anomaly scan as follows:

- In cases of asymptomatic suspected minor praevia, follow-up imaging can be left until 36 weeks.
- In cases with asymptomatic suspected major placenta praevia or accreta, ultrasound scan should be performed at 32 plus to 36 weeks dependent on finding, to clarify the diagnosis and allow planning for third-trimester management and birth.
- For women who have previously had a caesarean section, it is important to rule out placenta accreta especially when there is anterior placenta praevia.
- In cases of symptomatic women, imaging should be performed as appropriate.

### DIAGNOSIS OF A MORBIDLY ADHERENT PLACENTA

Antenatal imaging by colour flow Doppler ultrasonography should be performed in women with placenta praevia who are at increased risk of placenta accreta; with previous studies estimating sensitivity around 92% and specificity of 68%. MRI and Doppler ultrasound are equally effective in detecting the morbidly adherent placenta. MRI is helpful in detecting the depth of infiltration in cases of morbidly adherent placenta. Definitive diagnosis of the type of the morbidly adherent placenta is made intraoperatively and histologically.

## ANTENATAL MANAGEMENT

At diagnosis of placenta praevia women should be checked for anaemia and treated accordingly. A history of bleeding problems should be actively ruled out. If present, haematological advice sought.

Women and their partners should be counselled about the risks of antepartum haemorrhage, preterm labour, blood transfusion, caesarean section and hysterectomy and documented. Women with significant placenta praevia should be referred for an anaesthetic review.

Consider admission from 34 weeks for women who are at risk of major haemorrhage according to the clinical situation and the woman's geographical home base.

- In cases of minor APH < 34 weeks of gestation, women should be admitted for observation and can be discharged if there is no further bleed for 48 hours.
- For women with asymptomatic minor placenta praevia expectant management is appropriate until an episode of bleeding occurs. If, however, bleeding or contractions occur, the women should be advised to attend the hospital immediately for evaluation. Sterile speculum examination is appropriate to assess the source of bleeding, extent of the bleed and the possibility of rupture of membranes. Digital examination should not be undertaken.
- Women with major placenta praevia who have previously bled should be admitted and managed as inpatients from 34 weeks of gestation. Those with major placenta praevia, who remain asymptomatic, having never bled, require careful counselling before contemplating outpatient care. Any outpatient care requires close proximity to the tertiary hospital, the constant presence of a companion, and fully informed consent from the woman.

**During inpatient care, a decision regarding the availability of blood will depend on the clinical circumstances and the consultant's opinion needs to be sought regarding this. A current group and**

**hold must be in place. If 'placenta praevia' is written on the cross-match form the sample will be valid for 7 days otherwise the standard 72-hour (3 days) rule applies.**

**Routine cross matching of 4 units of blood is not necessary. In cases of abnormal antibodies haematology and the blood bank should be consulted.**

Prolonged inpatient care can be associated with an increased risk of thromboembolism. Women should be encouraged to remain mobile, hydrated and the use of prophylactic thromboembolic stockings should be considered. Prophylactic low molecular weight heparin may be appropriate for women who are considered to be at high risk of thromboembolism for other reasons.

## BIRTH – PLACENTA PRAEVIA

### MODE OF BIRTH

The mode of birth should be based on clinical judgment supplemented by sonographic information. A placental edge less than 2 cm from the internal os is more likely to need birth by caesarean section. Posterior placenta praevia where the presenting part is prevented from entering the pelvis may be an indication for caesarean at more than 2 cm from the cervical os.

In cases where the presenting part is engaged, we need to consider rescan to confirm the placental site and the decision regarding the mode of birth to be made accordingly.

### TIMING OF BIRTH

Elective caesarean section is recommended at 38 weeks of gestation.

There is no evidence to support the use of autologous blood transfusion for placenta praevia. Cell salvage may be considered in cases at high risk of massive haemorrhage, discuss with anaesthetist.

The choice of anaesthetic technique for caesarean section for placenta praevia must be made by the anaesthetist, in consultation with the obstetrician and the woman, but there is increasing evidence to support the safety of regional blockade.

An experienced Obstetrician should be present at the time of birth for major placenta praevia.

# PREOPERATIVE MANAGEMENT OF PLACENTA ACCRETA, INCRETA AND PERCRETA

## ELECTIVE SURGICAL PROCEDURE

***This requires complex multi-disciplinary involvement that relies on excellent communication.***

1. Obstetrics
   An experienced senior obstetrician supported by a second obstetrician should manage the delivery.

2. Radiology
   Review the films with the radiologist, confirming the site of the placenta, the site of the suspected myometrial defect and if it is possible to ascertain if there is bladder involvement, and to determine uterine incision site (to avoid placenta injury if possible).

   Refer to the interventional radiologist if iliac artery balloons are required preoperatively. The decision to use these should be made with multidisciplinary input.

3. Urology
   Refer to specialist urologist for flexible cystoscopy and consideration of ureteric stenting and possible involvement with delivery – supply date and time.

4. Anaesthesia
   Arrange preoperative anaesthetic consultation and for a decision as to the number of cross-matched units of blood required and the use or not of cell-salvage.

   Liaise with the Duty Anaesthetist (Pager 8120) regarding provision of Anaesthetist and Anaesthetic Technician for the case (as this is staffed in addition to elective list and acute labour ward cover).

5. Gynae Theatre Charge Nurse and Charge Midwife Birthing Suite
   An elective caesarean section should be booked to occur between 37 and 38 weeks gestation, in order to avoid labour and an emergency procedure. These procedures take place in the Gynae operating theatres, book the date and time.

6. Elective caesarean section administrator
   Complete an elective caesarean section booking form (Ref.8660) to inform the elective caesarean section administrator that the procedure has been booked. The elective caesarean section list must go ahead as normal in Birthing Suite.

7. Haematology
   Date and time of procedure, advice may be required.

8. ICU
   Date and time of procedure, bed may be required.

9. Neonatal
   Date and time of procedure, to be notified.

10. Vascular Surgery
    Date and time of procedure, help may be required.

11. Gynae Oncologist
    Date and time of procedure, help may be required.

12. Patient
    Counsel the woman and her family about the suspected diagnosis, the need for operative birth, the implications in terms of massive blood loss and blood transfusion and possible hysterectomy.

    Conservative management of placenta praevia accreta can be considered as an option and can preserve fertility. This decision should be made after careful counselling regarding the risk of life threatening haemorrhage and hysterectomy. As there is very little evidence available the decision for conservative management should be an informed decision and senior colleagues should be consulted accordingly.

    Counsel the woman regarding the option of prophylactic interventional radiology. Refer to "Management of patients with placenta accreta at Auckland City Hospital and Christchurch Hospitals" study guideline if patient accepts recruitment for iliac occlusion balloon management.

    At 37-38 weeks gestation a course of IM betamethasone is recommended.

**ENSURE CHECKLIST HAS BEEN COMPLETED BY 32 WEEKS (Appendix A)**

## EMERGENCY SURGICAL PROCEDURE

A small percentage of these women may present with bleeding and require emergency surgery. This will be carried out in Birthing Suite Theatre. It is expected much of the preparation would have been completed, please refer to the checklist and inform appropriate personnel as below.

1. Inform the 1st and 2nd on-call obstetric consultants.
2. Inform the on-call anaesthetic consultant.
3. Inform the theatre co-ordinator and request appropriate staff.
4. Notify PACU.
5. Notify NICU.
6. Inform the on-call the blood bank (80310) and ask for the Transfusion Medicine Specialist to be informed of the case.
7. Alert the on-call urologist, vascular surgeon and gynae oncologist.
8. Notify the ICU of the potential post-op admission

## OPERATIVE DAY

### PRE-OPERATIVE

1. All preoperative preparation should be performed in accordance with elective caesarean section pathway (Ref.8636). Ensure blood has been cross matched.
2. If iliac occlusion balloons are to be utilised, ensure urinary catheter has been inserted prior to transfer to Interventional Radiology Department.

3. Liaise with Interventional radiologist and urologist for cystoscopy, ureteric stent insertion and iliac artery balloon placement before transfer to DSA, if this is planned for known bladder invasion.
4. Transfer back to Gynae theatres.

## INTRA-OPERATIVE

1. Routine clean and preparation for caesarean section
2. Antibiotic prophylaxis as per protocol for caesarean section
3. Elective use of Tranexamic Acid - to be administered by anaesthetist. Dosage – 1 gram. See Postpartum Haemorrhage Guideline (GLM0021)
4. Inflate internal iliac balloons immediately after baby's birth if these have been placed and with the direction of the interventional radiology staff.
5. Consider classical CS or high transverse incision to avoid placenta injury.
6. No attempt should be made to remove placenta. Close uterine wound leaving the cord clamped.
7. Proceed to caesarean hysterectomy and set lowest landmark for total or subtotal hysterectomy.
8. In the event that the placenta starts to separate and comes away easily (should not be manually pulled off if adherent) then consider completing a routine caesarean section procedure without proceeding to hysterectomy but give consideration to utilising tamponade balloon and convert to hysterectomy if there are concerns regarding heavy bleeding .In any patient where this has happened and the uterus has been preserved, requires a high level of post caesarean observation in the PACU for a minimum of 5-6 hours and should be reviewed before going to the maternity ward.
9. Check the ureters (palpate ureteric stents if placed) to avoid ureter injury.
10. Separate and mobilise bladder. If difficulty encountered in bladder mobilisation, sacrifice part of myometrium instead of bladder.
11. In case of bladder invasion create retrovesical tunnel; cut the uterus from posterior, then clamp, cut the myometrium/placenta near the bladder invasion (leaving bladder invasion untouched), restore the bladder shape by 1-0 vicryl.
12. Inflate urinary bladder by N/S to check intactness of bladder.
13. Deflate iliac balloons, check bleeding again.
14. Insert medium size silicon drain intraperitoneally (size 15 Blake's drain).

## POST-OPERATIVE

1. Transfer patient to AOU/Birth Suite if stable, or to ICU if significant intraoperative haemorrhage and unstable.
2. Remove balloon catheters as per Interventional radiologist instruction to prevent thrombosis. Consider leaving sheath for a day in case of PPH occurring.

### 1ST POST-OPERATIVE DAY

1. Admit in ICU or AOU Birth suite.
2. Repeat FBC, coagulation and U&E's.
3. Arterial line should be removed before leaving ICU or AOU Birth Suite.
4. Intraperitoneal drain and IDC out as per surgeon's recommendation.
5. Ureteric stents to be removed as per urologist recommendation.

## MASSIVE HAEMORRHAGE

Massive haemorrhage should be dealt with in accordance with the recommendations as for Primary Postpartum Haemorrhage. See guideline Postpartum Haemorrhage GLM0021 and the CDHB Massive Transfusion Protocol.

## REFERENCES

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# APPENDIX A PLACENTA ACCRETA, INCRETA AND PERCRETA CHECKLIST

SURNAME ..... NHI .....

FIRST NAME ..... DOB .....

ADDRESS .....

..... POSTCODE .....

*(or affix patient label)*

Primary Obstetric Consultant coordinating care: .....

Decision for ☐ Caesarean section only ☐ Caesarean hysterectomy ☐ Conservative management

| | | |
|---|---|---|
| Second surgeon | ☐ Yes | Name: ..... |
| Consent for surgery | ☐ Yes | Date: ……../……../…….. |
| Surgery date booked | ☐ Yes | Date: ……../……../…….. |

| | |
|---|---|
| Elective caesarean section administrator informed (ext.85313) | ☐ Yes |
| Gynaecology elective services booking clerk informed (ext.85525) | ☐ Yes |
| Theatre Coordinator (pg.8918) notified of date | ☐ Yes |
| Birthing Suite Charge Midwife (pg.5005) notified of date | ☐ Yes |

| | | |
|---|---|---|
| First Consultant Anaesthetist arranged | ☐ Yes | Name: ..... |
| Second Consultant Anaesthetist arranged | ☐ Yes | Name: ..... |

Cell Saver to occur ☐ Yes ☐ No

| | | |
|---|---|---|
| Gynae Oncologist informed | ☐ Yes | Name: ..... |
| Vascular Surgeon informed | ☐ Yes | Name: ..... |
| Urologist informed | ☐ Yes | Name: ..... |
| Interventional Radiologist informed | ☐ Yes | Name: ..... |
| Haematologist informed | ☐ Yes | Name: ..... |

| | |
|---|---|
| Blood Bank (ext.80310) notified of blood requirements | ☐ Yes |
| ICU (pg.8888) notified re. potential need for admission | ☐ Yes |
| NICU (pg.5088 notified re. potential need for admission | ☐ Yes |