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Aim
To provide clinicians at King Edward Memorial Hospital with a management plan for women who are diagnosed with Abnormally invasive placenta.
Abnormally invasive placenta

Background
Morbid adherence of the placenta to the uterine wall is a potentially life threatening obstetric complication that frequently requires interventions such as caesarean hysterectomy and high volume blood transfusion. With the rising caesarean delivery rate and increasing maternal age, the incidence of abnormally invasive placenta has significantly increased².

Definition
Abnormally invasive placenta and placenta accreta are generalised terms used when an abnormal, firmly adherent placenta implants with some degree of invasion into the uterus. In this context it includes the histopathology entities of placenta accreta, placenta increta and placenta percreta.

Classification¹
Placenta accreta
- Placenta implants totally/partially/focally through the decidua basalis
- Villi attached to myometrium
Placenta increta
- Villi invade within the myometrium

Placenta percreta
- Villi fully penetrate the myometrium
- May breach the serosa and invade surrounding structures

Risk Factors
- (Multiple) Previous CS
- Placenta praevia
- Other uterine surgery
- First CS elective
- IVF pregnancy

Key points
- Known or highly suspected cases should be managed by a dedicated multidisciplinary team with expertise in the management of abnormally invasive placenta
- A dedicated team is expected to take ownership of the patient and ensure continuity for the patient’s care throughout the antenatal, intrapartum and postpartum period.
- For all cases of placenta praevia, ultrasound reports should specify whether or not there are features of abnormally invasive placenta. If this is not specified, the ultrasound is to be repeated. This scan should be performed by a senior member of the ultrasound service and images recorded on PACS. Additional medical imaging may be considered to assist with surgical planning.
- Once diagnosed, women are to be reviewed and counselled by a Consultant Obstetrician in antenatal clinic or on the antenatal ward at the earliest opportunity.
- Haemoglobin levels and iron stores should be optimised prior to surgery.
- Patient proximity to the primary hospital should be considered during the third trimester due to the risk of catastrophic haemorrhage.
- Both an elective and an emergency plan should be clearly documented according to the format in Appendix 1, and recorded on the MR250 (Inpatient Progress Notes) in the patient’s file.
- The timing of the caesarean section should consider the desirability of performing it as an elective rather than an emergency procedure.
• Women with features of abnormally invasive placenta are to be referred to the dedicated multidisciplinary team for further consultant-led discussion and management planning
• Surgery is preferably booked for Monday mornings in consultation with the Head of Obstetrics.
• Patients should be referred for anaesthetic review once the surgical plan has been determined.
• Unbooked patients with suspected abnormally invasive placenta who require emergency management should be managed by the obstetric team on duty.

Diagnosis
Abnormally invasive placentation may be suspected when there is a placenta praevia in a woman with a history of caesarean section or other uterine surgery\textsuperscript{7, 8}. The diagnosis is usually established by ultrasonography and occasionally supplemented by magnetic resonance imaging (MRI)\textsuperscript{2}.

Prenatal diagnosis
Is a key factor in optimising the counselling, treatment, and outcome of patients with abnormally invasive placenta\textsuperscript{9}.

Special attention should be paid to the sonographic examinations of those patients with a history of caesarean delivery and subsequent diagnosis of placenta praevia\textsuperscript{10} or placenta overlying any other uterine scar.

Prenatal diagnosis is associated with reduced maternal morbidity in terms of:
• Reduction of peri-partum blood loss and the need for blood transfusion\textsuperscript{9, 11}
• Planned delivery in an appropriate setting\textsuperscript{12, 13}
• Reduced emergency hysterectomies\textsuperscript{14}

At KEMH the ultrasound is to be done by a senior member of the ultrasound team - the report is to specify that there are no features of Abnormally invasive placenta. If this is not specified, the ultrasound is to be repeated.

Procedure/ management/ treatment
In general, features of placenta percreta would warrant consideration of earlier delivery (i.e.32-34 weeks), whereas relatively mild cases may be more safely scheduled at 36-36+6 weeks. Deferral of delivery beyond 36+6 weeks is not recommended. Antenatal corticosteroids should be administered prior to delivery at all gestations less than 34 weeks, and considered prior to elective caesarean delivery up to 36+6 weeks.

Referral to the dedicated multidisciplinary team for management of abnormally invasive placenta should include a verbal discussion with the Consultant Obstetrician followed by a written referral.
**Multidisciplinary antenatal planning**

**Planning will include input from:**
- Consultant Obstetrician (primary surgical team)
- Consultant Sonologist
- Consultant Anaesthetist
- Consultant Haematologist
- Consultant Gynae Oncologist
- Clinical Nurse Consultant (CNC) - Patient Blood Management (PBM) - who liaises with the Obstetrician to optimise haemoglobin during the antenatal period.
- CNC- Anaesthetics to organise intra-operative cell salvage.
- Clinical Midwifery Manager (CMM)- Adult Special Care Unit (ASCU)
- Clinical Nurse Manager (CNM)- Theatre
- MDT Midwife

**Elements of the management plan should include:**
- Confirmation of the diagnosis and assessment for evidence of extra uterine invasion, in consultation with a senior sonologist.
- Planned date of surgery- Monday is preferred as the Gynae Oncologist is on site.
- A pre-operative surgical review will confirm:
  - The advice to be given regarding potential outcomes and surgical options
  - The possibility of conservative management
  - The likelihood of hysterectomy
  - Tubal ligation
  - Relevant investigations to be performed including:
    - Assessment and preoperative optimisation of Hb, possibly including iron infusion
    - Repeated ultrasound or MRI
    - Cross-matching and ordering of other blood products as required.
- Operative particulars:
  - Skin incision (midline or Pfannenstiel)
  - Ureteric stenting
  - Interventional radiology
  - Patient positioning (supine or lithotomy)
  - Cell salvage
- Clearly document the plan in the patient’s antenatal notes with a management plan sticker and reference to this plan on the Obstetric Special Instruction sheet (MR004)
A copy is to be provided to all members of the Accreta team.

Refer to the Multidisciplinary team management plan for abnormally invasive placenta - Appendix 1 on this document

Preoperative patient counselling
This is to be carried out by the Consultant Obstetrician and is to include:

- The following risk factors
  - Potential need for hysterectomy\(^{25}\)
  - Risks of profuse haemorrhage\(^{25}\)
  - Real risk of mortality
- Involve the family in all discussions for medico-legal reasons
- A generic consent form should be completed by the Consultant Obstetrician including all possible treatments including hysterectomy, interventional radiological procedures and conservative management.

Pre-operative investigations
To be completed one week prior to planned, confirmed surgery:

- Full blood picture
- Coagulation profile
- ROTEM
- Group and Screen and
- Cross-match 4-Units

Refer to the following Transfusion Medicine Guidelines:

- Role of the Group and Hold Request
- Maximum Surgical Blood Order Schedule

**References**


Related WNHS policies, procedures and guidelines

Transfusion Medicine

Useful resources (including related forms)

See Appendix I below for Multidisciplinary team management plan

Keywords: placenta accreta, abnormally invasive placenta, placenta increta, placenta percreta, adherence of placenta, adherent placenta
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author / reviewer: O&G Consultant Obstetricians
date first issued: July 2014
last reviewed: March 2018
next review date: March 2021
endorsed by: MSMSC
date: 6/3/2018
standards applicable: NSQHS Standards: Governance, Clinical Deterioration

Printed or personally saved electronic copies of this document are considered uncontrolled.

Access the current version from the WNHS website.
Appendix I: Multidisciplinary team management plan

ABNORMALLY INVASIVE PLACENTA

Multidisciplinary Team Management Plan

<table>
<thead>
<tr>
<th>Name:</th>
<th>UMRN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOB:</td>
<td>Weight:</td>
</tr>
<tr>
<td>Consultant Obstetrician:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G:</th>
<th>P:</th>
<th>EDD:</th>
<th>Planned delivery date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document expected placental invasion</td>
<td>Accreta / Increta / Percreta Bladder involvement etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned surgical approach</td>
<td>Hysterectomy / Attempt placental removal / Leave placenta in situ Position: Supine / Lithotomy Urology: Cystoscopy / Ureteric stents / Urogynaecologist present Abdominal incision: Midline / Pfannenstiel Expected complications: e.g. adhesions etc. Specific staff required:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consents to blood products?</td>
<td>Yes / No If no, what types of products will patient accept Cell salvage: Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency management</td>
<td>Call the following clinicians in the event of emergency delivery:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous CS/ uterine surgery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document episodes of APH</td>
<td>Document date and volume</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antenatal corticosteroids given?</td>
<td>Document date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion regarding fertility</td>
<td>Document date and discussion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Imaging findings**

*Upload to PACS*

<table>
<thead>
<tr>
<th>Optimise Hb</th>
<th>Hb (date):</th>
<th>Ptn (date):</th>
<th>Iron infusion (date):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood group and antibody screen:</td>
<td>Blood transfusion (date):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crossmatch ____ units pre-operatively</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notifications**

- □ HOD Obstetrics
- □ CNM ASCU

**Consent**

- Date:

**Form completed by:**

- Date:

Print to MR250 (Integrated Progress Notes) and filed in patient record for this pregnancy

Document that plan has been made on MR004 (Obstetric Special Instructions)