Ruptured Uterus guideline (GL908)

Approval

<table>
<thead>
<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
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<tbody>
<tr>
<td>Maternity &amp; Children’s Services Clinical Governance Committee</td>
<td>Chair, Maternity Clinical Governance Committee</td>
<td>7th June 2019</td>
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</tbody>
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Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
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<tbody>
<tr>
<td>5.0</td>
<td>Feb 2017</td>
<td>Dr Mable Pereira (Specialty Doctor), J Ablett (Consultant Obstetrician)</td>
<td>Reviewed</td>
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<tr>
<td>6.0</td>
<td>May 2019</td>
<td>Dr Mable Pereira, J Ablett (Consultant Obstetricians)</td>
<td>Reviewed, minor changes throughout</td>
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Overview:
Uterine rupture is an uncommon but serious and sometimes tragic occurrence. It can result in serious complications for both mother and baby, such as haemorrhagic shock, the need for peripartum hysterectomy, hypoxic ischaemic encephalopathy, permanent brain injury and even death. It mostly happens in a scarred uterus. Rupture of an unscarred uterus is unexpected and diagnosis may therefore be delayed.

Complete uterine rupture is defined as separation of the entire thickness of the uterine wall with extrusion of fetal parts to the peritoneal cavity. Uterine dehiscence is defined as a disruption of the uterine muscle with intact serosa. This is usually asymptomatic.

1.0 Epidemiology
Uterine rupture occurs at a frequency of 0.2% in women with previous caesarean (UKOSS). Overall rupture uterus incidence in UK is 2 in 10,000 maternities (UKOSS).

2.0 Prognosis
In developed countries maternal and perinatal mortality due to rupture uterus is very rare, whereas in developing countries maternal mortality is as high as 4.2% with high perinatal mortality.

- Risk Factors
  - Previous Uterine scar/uterine surgery with cavity breached
  - Obstructed labour
  - Difficult forceps delivery (Kiellands)
  - Undiagnosed cephalo-pelvic disproportion (CPD) or malpresentation (brow or face)
  - Grand multiparity
  - Injudicious use of oxytocics in women with high parity and uterine scar
  - External trauma e.g. RTA
  - Placenta percreta or increta

3.0 Antenatal management in women with risk factors for uterine rupture
- To follow departmental BAC guidelines and pathway while counselling women with previous Caesarean section
- Careful consideration should be given before IOL in cases of short delivery interval (<12 months) and twins as risk may be slightly increased.
4.0 Labour and Delivery

In women with the risk factors mentioned before labour should not be prolonged. Bloods should be sent for FBC and G&S at the onset of active labour. Assessment for IV access should be made and if no concerns about IV access it may be delayed till such time where fetal or maternal concerns are raised. Continuous Electronic Fetal Monitoring (CEFM) of the fetal heart should be carried out. Augmentation of labour with Oxytocin must be discussed with the consultant.

5.0 Premonitory signs

- maternal tachycardia
- persistent scar pain between contractions

6.0 Signs of rupture

- Suspicious or abnormal CTG
- Vaginal bleeding
- Shock (rising pulse/falling BP /sweating/poor peripheral perfusion)
- Sudden, severe, abdominal pain
- Decrease/cessation uterine contractions
- Haematuria
- Peritoneal irritation (shoulder tip pain or chest pain)
- Abnormal fetal lie
- Retraction of presenting part

7.0 Management

- Summon help
- IV access (use 2 size 14-16 G) and X match 4-6 units of blood
- Stop Oxytocin infusion if in use
- Airway + oxygenation
- Volume replacement.
- Correct any blood loss.
- Inform Consultant Obstetrician & Anaesthetist on call to attend
- Catheterise and monitor urine output
• Immediate laparotomy and Caesarean section with uterine repair or hysterectomy
• Patient and relatives must be made aware pre-operatively of the possibility of PPH and hysterectomy and this should be reflected in the consent form.

8.0 Complications

• Massive Obstetric haemorrhage/ DIC
• Hysterectomy
• Injury to baby/HIE
• Damage to bladder/ ureter
• Ileus, infection, VTE

9.0 References

1. Birth after caesarean birth Green Top Guidelines No 45. RCOG 2015
2. UKOSS: Rupture uterus March 13 2012
3. Review Uterine rupture: a revisit; The obstetrician & Gynaecologist 2010, 12 :223-230