

Ruptured uterus

Causes

Rupture of uterus during pregnancy

Spontaneous ⇒ rupture of Caesarean scar ↙ upper
↘ lower

⇒ rupture of myomectomy scar

⇒ rupture of hysterotomy scar

Traumatic ⇒ direct blow on abdomen,
perforating wound

⇒ forceful ECV

Rupture of uterus during labour

Spontaneous

1. Obstructed labour due to CPD, malpresentation
2. Rupture of CS scar
3. Injudicious use of oxytocics
4. Grandmultip

Traumatic

1. Intrauterine manipulation such as internal version or manual removal of adherent placenta
2. Difficult forceps delivery (cervical tear extending up to the body of uterus)
3. Obstructed labour (following manipulation carried out for the relief of obstruction)

Types of ruptured uterus

1. **Complete or intra-peritoneal** --- entire wall of uterus involved usually with upper segment tear
2. **Incomplete or extra-peritoneal** --- part of uterine wall involved usually with lower segment tear

Diagnosis of ruptured uterus

History

1. **Previous operation** (Caesarean section, myomectomy, hysterotomy)
2. **Injudicious use of oxytocin administration**
3. **Unsuccessful attempts by midwife to deliver the baby**

Symptoms

- **During pregnancy** ⇒ acute abdominal pain
 - ⇒ pain in previous scar
 - ⇒ fainting attack
- **During labour** ⇒ history of prolonged labour with acute agonizing pain

Signs

- scar tenderness
- features of shock

In **complete rupture** ⇒ easily palpable fetal parts (+)

In **incomplete rupture** ⇒ tender and distended lower segment, Bandl's ring at the level of umbilicus

Management of ruptured uterus

1. Prevention

AN care

to detect CPD, malpresentation, hydrocephalus, past history of CS together with indication, bad obstetric history, grandmultip

2. Anticipation and monitoring

In first and second stage

Careful monitoring of pain notes, scar tenderness, PR. Repeat CS if there is scar tenderness.

In third stage

Examination of scar after vaginal delivery by experienced obstetrician

3. Treatment

- Resuscitation of the patient (giving morphine, replacement of blood loss, IV fluids)
- Urgent laparotomy ⇒ Repaired
 - small size & clean
 - family not complete
- ⇒ Repaired & sterilization
 - small size & clean
 - family not complete
- ⇒ Hystrectomy
 - Large size
 - Sepsis

Differential diagnosis of ruptured uterus

1. Abruptio placentae
2. Pregnancy with myoma degeneration
3. Pregnancy with complicated ovarian cyst
4. Pregnancy with acute surgical emergency such as acute appendicitis

Prognosis

■ **Maternal mortality**

- 20% in ruptured uterus in case of obstructed labour
- 1% in LSCS rupture

■ **Fetal mortality**

- 100% in obstructed labour
- 10% in LSCS rupture

Laceration of the genital tract

- Laceration of perineum and vagina
- Laceration of cervix

Degrees of perineal tears

1. First degree - skin only
2. Second degree - perineal muscle + skin (episiotomy)
3. Third degree - 2nd degree + anal sphincter
 - 3a - < 50% of external anal sphincter torn
 - 3b - > 50% of external anal sphincter torn
 - 3c - external + internal sphincter torn
4. Fourth degree - 3rd degree + anal epithelium

Causes

1. Overstretching of perineum due to large baby, face to pubes, narrow suprapubic arch, forceps delivery
2. Stretching of the perineum due to rapid delivery of the head during uterine contraction, precipitated labour and delivery of the after coming head in breech
3. Inelastic perineum in elderly primigravida, scar in the perineum following previous operations such as episiotomy or perineorrhaphy and vulval oedema

Complications

1. Haemorrhage
2. Shock
3. Infection
4. Wound gaping
5. Subsequent uterovaginal prolapse if repair is not proper

Management

1. Prevention
2. Treatment of first and second degree tears
3. Treatment of third degree tear
4. After-care

Prevention

- Proper conduction in the second stage of labour
- Flexion of the head is to be maintained
- To perform timely episiotomy

Treatment of first degree tears

- Repair skin only by fine catgut / thread

Treatment of second degree tears

- 1st layer → the vaginal epithelium is sutured from the apex of the tear, down to the introitus, continuous or interrupted suture with catgut
- 2nd layer → perineal body repaired with strong stitches with catgut
- 3rd layer → the skin edges are brought together with fine catgut

Treatment of third degree tear

- 1st layer → identification and suturing of anal sphincter
- 2nd layer → repair of vaginal epithelium
- 3rd layer → repair of perineal muscle
- 4th layer → suturing of the skin

Treatment of fourth degree tear

- 1st layer → repair of anal mucosa
- 2nd layer → identification and suturing of anal sphincter
- 3rd layer → repair of vaginal epithelium
- 4th layer → repair of perineal muscle
- 5th layer → suturing of the skin

After-care

- Perineal hygiene
- Antibiotics
- Low residue diet for patients with third degree tear



Thank You!