TRAUMATIC POSTPARTUM HEMORRHAGE

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UTERINE RUPTURE
Incidence

- Incidence: 1:4000.
- The incidence varies according to the standard of obstetric practice.
- It is common in multipara due to:
  - Tendency to hypertonic uterine action.
  - High incidence of malpresentation, macrosomia, and diabetes mellitus.
  - Pendulous abdomen leads to misdirection of the uterine axis
  - A false sense of security
Etiology & timing:

• during labor:
  • spontaneous:
    • scar of the uterus (most common): CS, myomectomy, hysterotomy, metroplasty
    • obstructed labor: e.g. contracted pelvis, neglected shoulder presentation, multipara. The rupture usually occurs in the left side of the lower segment.
  • traumatic: forceps, breech extraction, internal version, craniotomy.
  • iatrogenic: improper use of oxytocin.

• It rarely occurs during pregnancy due to:
  • scar in the uterine wall.
  • penetrating wounds of the abdomen.
site:

- lower segment more to the left (ruptured uterus due to obstructed labor).
- at the site of the scar.
- extension of cervical tear into lower segment.
types:

- complete: tear of whole uterine wall including peritoneum, bleeding is not severe due to retraction of empty uterus.
- incomplete: tear of uterine wall with intact peritoneum, bleeding is severe.
complications:

- maternal
  - shock.
  - acute renal failure.
  - DIC.
  - amniotic fluid embolism.
  - injuries: ureter, bladder.
  - complication of therapy.
  - Death.

- fetal: IUFD due to placental separation
Diagnosis

- threatened rupture:
  - tender scar,
  - intrapartum blood spotting per vagina

- Silent rupture
  - may be accompanied by no more than a rise in pulse rate.
  - This sign is highly significant in VBAC.

- actual rupture:
intrapartum:

- history:
  - severe abdominal pain.
  - intrapartum bleeding: usually there is some external bleeding.

- examination:
  - Hemodynamic instability
  - as the fetus has escaped into the peritoneal cavity through the rent in the uterus:
    - the fetus heart ceasing shortly after rupture.
    - fetal parts are easily felt on abdominal examination.
    - two swellings are felt (the fetus and the uterus).
  - Vaginally, there is upward recession of the presenting part (loss of the presenting part from its former position within the pelvis).
Postpartum:

• PP bleeding
• Hemodynamic instability
• EUA: with good light, good assistant, a set for laparotomy, urinary catheterization. steps:
  • explore the upper segment vertically
  • explore the lower segment transversely
  • explore the cervix with 4 ring forceps
  • explore the vagina & perineum
Treatment:

• threatened ruptured scar or impending rupture of obstructed labor: urgent CS
• actual rupture: ORDER
  • **laparotomy**
  • repairable tears: repair +
    • advise for elective CS in next pregnancy (if incomplete family)
    • bilateral tubal ligation i.e. sterilization (if complete family)
• irreparable tears: hysterectomy
CERVICAL TEARS
Etiology:

- forceps before full cervical dilatation.
- Breech extraction forceps before full cervical dilatation.
- Craniotomy.
- Manual dilatation of the cervix
- scar of the cervix: previous tears, amputation, conisation
- iatrogenic: oxytocin
complications:

- postpartum hemorrhage.
- extension into lower segment (ruptured uterus)
- lateral tears: extension into the base of broad ligament
- anterior tears: extension into the base of the bladder
- posterior tears: extension into the Douglas pouch
- patulous internal os.
- Infection.
- If the tears are bilateral ectropion occurs.
management:

- Diagnosis
  - PP bleeding
  - hypovolemic shock
  - abdominal: contracted uterus with the fundus below the level of umbilicus
  - EUA: How?

- Treatment: repair by interrupted sutures: the 1st suture must be placed above the apex of the tear
PERINEAL TEARS
etiology

- rapid delivery of the fetal head
- during extraction of the posterior shoulder.
- primigravida
- forceps
- breech, mentoanterior, direct occiput posterior
- macrosomia
- narrow sub pubic angle.
- Prior perineorrhaphy.
degree

- 1st degree tear: vagina, perineal skin.
- 2nd degree tear: involves perineal body but not the anal sphincter.
- 3rd degree (complete) tear: involves external anal sphincter
- 4th degree: rectal mucosa injury
treatment

- if the tear is diagnosed within 24 hours it MUST be repaired immediately.
  - Anterior wall of rectum & anal canal: tying the knots inside the bowel lumen.
  - External anal sphincter: with 2 interrupted sutures.
  - Posterior vaginal wall: repair by continuous sutures: the 1st suture must be placed above the apex of the tear
  - Levator ani & perineal muscles: with interrupted sutures
  - Skin of perineum
- postoperative care in cases of complete tears: local antiseptic, fluid diet, broad spectrum antibiotics, laxatives for 10 days e.g. lactulose or docusate sodium.

- if the tear is diagnosed after 24 hours the wound is potentially infected and cannot be sutured, so give antibiotics & local dressings to do the repair 3 months later.
ALL THE BEST

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