Genital tract injury

Vulva: - It include: -
1. Labial laceration.
2. Laceration of the remnant of hymen.
3. Hematoma caused by either rupture of vulval varicose or after perineal repair. Clinically presented as painful swelling, treated by incision, evacuation, ligation of blood vessel & drainage.

Vagina & perineum: - It can be: -

1. First degree perineal tear: - It involves perineal skin, minor part of perineal body & related posterior vaginal wall.

2. Second degree perineal tear: - It involves perineal body up to anal sphincter but not involve it in addition to above.

3. Third degree perineal tear: - It involves anal sphincter, 2cm or more of anal canal in addition to above. If not repaired; it will cause fecal incontinence. All types of perineal tear should repaired once it is diagnosed. Third degree type should repaired under G.A. Then after care of these include
1. Daily wash.
2. Antibiotics.
3. Glycerin suppositories to achieve loose stool.
4. Catheterization if urine retention occurs.

Episiotomy:-

It is second degree perineal tear made by human after local infiltration of local anesthesia. The aims are:-
1. To ease delivery.
2. To protect the head from trauma.

Indications: -
1. Occipto-posterior malposition.
2. Breech presentation.
3. Forceps delivery.
4. Narrow sub-pubic arch.
5. Previous vaginal repair.
6. Shoulder dystocia.
7. Tight perineum as in primigravida.

Types:-
1. Mid-line.
2. Lateral.
3. Medio-lateral.

The best is medio-lateral.

Advantages: -
1. Quick repair.
2. Rapid heals.
3. Less infection.
4. Reduce the complications as dyspaurenia & prolapse.

Problems: -
1. Too tight: - it cause edema, pain & devitilization of the tissues.
2. Too-loose: - it cause inaccurate apposition of tissues with increase scar formation.
3. Difficult to reach apex so (**hand over hand)** technique is used in repair. Its principle is to insert the stitch in the point that can reached near the vaginal apex, then after ligation of stitch; hold it & pull down to insert other stitch in the point above & continue as such until reach the apex.

Repair:-
1. Identify the apex of posterior vaginal epithelium, place the suture just above it, interrupted sutures are preferred to avoid shortening of the vaginal wall.
2. Large dead space of perineal body behind vagina should obliterate by two layers; the first is deeper.
3. Last layer is the skin.

After care:- 1. Use Dixon suture to reduce short term discomfort with fewer complications.
2. Use ice packs to facilitate vasoconstriction to prevent bleeding & hematoma formation.
3. Use warm packs for established hematoma & edematous wound.
4. Use local agent as **Epifoam** (1%of hydrochloride acetate with 1% pramoxine hydrochloride) or **Lignocaine** gel.

Cervix: -

A. cervical lacerations: -

1. Minor: - It is symptom less, require no treatment.

2. Extensive: - It is caused by: -
a. Precipitate labor.
b. Use of forceps on incompletely dilated cervix.
c. Rapid delivery of after-coming head in breech.
d. Injury to previous cervical scar.
It should repaired under G.A.

B. Detachment: - Annular detachment caused by cervical dystocia in which there is strong uterine contraction with close application of presenting part so cause circulatory arrest & tissue devitilization. Puerperal infection is common but bleeding not occurs.

Uterus: -

A. Rupture of uterus:-

Causes: -

A. During pregnancy:-
1. Previous classical C/S.
2. after myomectomy operation if uterine cavity was opened.
3. after tubal reimplantation.
4. after excision of uterine septum.
5. Following uterine perforation during curettage.

B. During labor: -

1. Obstructed labor.
2.Oxytocin hyper stimulation.
3. Intrauterine manipulation as internal version, manual removal of placenta.
4. Weak lower segment scar.
5. Spontaneous in multiparous.

Types:-

1. Complete (intraperitoneal); the whole layers of uterus are injured including the serosa.
2. Incomplete (extra peritoneal); the serosal layer of the uterus remain intact.

Symptoms & signs: -

Classical features are: -

a. Sudden & sever abdominal pain.
b. Cessation of the progress of labor.
c. Fetal death.
d. Signs of internal hemorrhage as hypotension, tachycardia, and sweating, cold extremities.

Less dramatic features are: -

1. Slow progress of labor for no obvious reason.
2. Tenderness at the site of previous scar is unreliable.
3. Increase in maternal pulse rate with slight trickle of blood vaginally with or without fetal distress.
4. Vaginal bleeding is not always present since lower segment is relatively a vascular.

Treatment: -

A. Complete: -

1.Repair of injured segment if uterus is desirable & possible to preserve.
2. Subtotal hysterectomy if extensive damage.
3. Repair with tubal ligation if hysterectomy is difficult or women wish to continue to menstruate.

B. Incomplete: - Laprotomy with repair of the injured part is advisable with blood transfusion.

B. Acute inversion of uterus:-

Definition: - The body of uterus is turned inside outside either partially or completely.

Causes: - During the delivery of placenta by either pulling the umbilical cord or pressing on fundus of uterus while the placenta is not separated yet.

Symptoms & signs: -

1. Unexplained third stage shock.
2. Bleeding continue until uterus is replaced.
3. Uterus is not felt at the usual position with difficulty to palpate the fundus.
4. Appearance of uterine fundus at vulva.

Treatment:-

A. Manual replacement: - it was done under G.A. where the placenta is peeled off if still attached then the uterus is squeezed with hand & replaced. The part which inverted last should replaced first & the fundus is the last.

B. Replacement by fluid pressure: - .
Using warm saline delivered into vagina through wide- bore tube from container held at height of 60 cm. Vaginal exist is sealed by operators hand holding labia majora together or use adhesive plaster.

Para genital hematoma:-

A. Infralevator hematoma: - It includes hematoma of vulva, perineum, paravagina & bleeding into ischio-rectal fossa.
There is bleeding from para-vaginal plexus into surrounding tissues, track down into labial folds & perineal body cause large painful hematoma. This is treated by blood transfusion, sedation, analgesia & surgical evacuation.

B. Supralevator hematoma: - (broad ligament hematoma):-

1. It is difficult to recognize bleeding above levator ani muscle until hematoma is so large to be present abdominally as blood raise the broad ligament out of pelvis & soft mass appear in one of iliac fossae.
2. Vaginally there is boggy swelling in vaginal for nix of same side & the uterus is pushed contra laterally.
3. Pain is uncommon because of large space but third stage collapse & signs of internal bleeding are more characteristics.
4. Treated by evacuation of hematoma by laprotomy with firm pressure. Blind insertion of deep suture is contraindicated as position of ureter is impossible to determine. Hysterectomy is better avoided unless there is obvious injury to uterus or cervix. If failure to control bleeding by firm pressure; internal iliac artery ligation is done on affected side.

Pelvic injury: -

A. Symphsis pubis separation: -

Caused by trial of labor in case of cephalo-pelvic disproportion at pelvic brim, or difficult Kiel lands forceps. It can be minor presented as maternal discomfort treated by rest, use of corset, or can be sever presented as sudden sever pain in early puerperium with painful rolling movement & treated by pelvic support.

B. Coccyx: - During delivery the coccyx usually displaced backward & coccygeal tip move as much as 2.5cm so its damage is unusual. A forward angulation is the result of accident. Fixed forward angulations rarely cause obstruction during labor.

C. Nerve injury: -

1. Lumbo-sacral N.:- It caused by: -
a. Herniation of lumbosacral disc.
b. Dragging the roots of lumbosacral plexus across pelvic brim during engagement.
c. Direct injury to nerve root by blades of forceps.
Clinically unilateral foot drop which is mild pass unnoticed. Treated by rest in bed on firm board & physiotherapy.

2. Peroneal N.:- Caused by clumsy use of obstetric stripes during delivery when the patient was kept in lithotomy position result bruising against fibula causing unilateral foot drop.

Fistulae: - Two types:-

1. Urinary fistula: -

Vesico- vaginal is the commonest. It is caused by injury to the bladder at time of C/ S passed unnoticed or as complication of obstructed labor consequent to the necrosis of bladder neck due to prolong pressure against the bladder by the presenting part of the fetus. Clinically presented with true urine inconteninence.

2. Fecal fistula: -

Recto-vaginal fistula is the commonest caused by third degree perineal tear. Clinically presented as fecal incontinence. **Utero-rectal** fistula is other type caused by perforation of posterior uterine wall during evacuation of uterus.

References:-

1. **Ten teacher of obstetric.**
2. **Dewhurst textbook of gynecology & obstetric.**

Fourth year lecture