IN THE NAME OF GOD

Female genital trauma

Dr afiat
Injuries of the Genitourinary System

Female genitalia:

- External female genitalia
  - Vulva, clitoris, major and minor labia, vagina

- Internal female genitalia
  - Uterus, ovary
Female Genitalia

- The female organs are protected by the pelvis.

- The uterus of a pregnant woman is susceptible from compression trauma to the pelvis or abdomen.

- Soft tissue injury can cause anxiety and profuse bleeding.
Female Genital Tract Trauma

- Obstetric Trauma
  - Uterus (Blunt & Penetration)
  - Genital Tract (delivery trauma)

- Gynecologic Trauma
  - Blunt
  - Penetration
OBESTETRIC
BLUNT TRAUMA

Prevalence
10 to 20 percent of pregnant women suffer from physical trauma

Etiology
Homicide
Domestic violent
Automobile Accidents
Sexual Assault
Automobile Accidents

- At least 3 percent of pregnant women are involved in motor vehicle accidents.
Blunt Trauma Management

Immediate assessment.

Emergency treatment.

Evaluation of collateral effects on the fetus.
Penetrating Trauma

- Knife and gunshot wounds are the most common penetrating
- aggravated assaults, suicide attempts, or attempts to cause abortion

The incidence of maternal visceral injury with penetrating trauma is only 15 to 40

When the uterus sustains penetrating wounds, the fetus is more injured

fetus sustains injury in two thirds of such cases.
Management of Trauma

Basic rules: resuscitation including:
- establishing
- ventilation
- arrest of hemorrhage
- treatment of hypovolemia with crystalloid and blood product
- repositioning of the large uterus away from the great vessels to diminish its effect on decreased cardiac output.

Evaluation is continued
- for fractures, internal injuries, bleeding sites placental, uterine, and fetal injuries
Paraclinical pregnant trauma victims have less radiation exposure than non pregnant controls

- screening abdominal sonography followed by CT scanning for positive sonographic findings.

- Penetrating injuries must be evaluated by radiography. Because clinical response to peritoneal irritation is blunted during pregnancy,

- laparotomy approach to exploratory for abdominal gunshot wounds

- some clinicians advocate close observation for selected stab wounds.
Delivery trauma
Lacerations of the Birth Canal

Perinea Lacerations: classified four degree

- **First-degree**
  lacerations involve the fourchette, perineal skin, and vaginal

- **Second-degree**
  mucous membrane lacerations involve, in addition, the fascia and muscles

- **Third-degree**
  to involve the anal sphincter.

- **fourth-degree**
  laceration extends through the rectum's mucosa to expose its lumen.
Vaginal Lacerations

- Isolated lacerations involving the middle or upper third of the vagina.

- Such lacerations frequently extend deep into the underlying tissues and may give rise to significant hemorrhage.

- Lacerations of the anterior vaginal wall in close proximity to the urethra. They are often superficial with little to no bleeding.

- Large lacerations require extensive repair, indwelling catheter is placed.
Injuries to the Cervix

- The cervix is lacerated in more than half of all vaginal deliveries.
- Most of these are less than 0.5–2 cm, although deep cervical tears may extend to the upper third.
- Such tears heal rapidly and are rarely the source of complications.
Management.

- Deep cervical tears usually require surgical repair.
Puerperal hematomas

- Incidence of puerperal hematomas was found to vary from 1 in 300 to 1 in 1000 deliveries

- Risk factor: Nulliparity, episiotomy, and forceps

- Classified: vulvar, vulvo vaginal, Para vaginal, or retroperitoneal.
Vulvar hematomas

- involve branches of the pudendal artery.

Para vaginal hematomas

- involve the descending branch of the uterine artery.
Treatment

- Smaller vulvar hematomas may be treated expectantly.

- If pain is severe or the hematoma continues to enlarge, the best treatment is prompt incision and drainage.

- The cavity is surgically closed, and the vagina is packed for 12 to 24 hours.
GYNECOLOGY
Genital Tract Trauma

- FOREIGN BODY
- SEXUAL ASSULT
- HEMATOMA
Vaginal Foreign Bodies

PATHO PHYSIOLOGY & MANAGEMENT

- Foreign objects stuck in the vagina or anus
  - Keep the patient calm.
  - Do not attempt to remove any foreign object
  - Do not let the patient walk
  - Transport with knees-flexed, legs-together.

- Lacerations and avulsions.
  - Use local pressure to control bleeding.
  - Hold dressings in place with diaper-type bandage
  - Do not pack dressings into vagina.

- In-hospital evaluation required
SEXUAL ASSULT

Most Common Sites of Penile Penetration

- The posterior fourchette (Between 5 and 7 o’clock)
- Labia minor
- Hymen
- Fossa navicularis
type of injury

T - Tear (laceration) or tenderness
E - Ecchymosis (bruising)
A - Abrasion (scrape)
R - Redness (erythema)
S - Swelling (edema)
<table>
<thead>
<tr>
<th>Location</th>
<th>Incidence</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior Fourchette where the penis first touches the perineum, 5-7 o’clock</td>
<td>70 %</td>
<td>T, A</td>
</tr>
<tr>
<td>Labia Minora</td>
<td>56 %</td>
<td>A, E</td>
</tr>
<tr>
<td>Hymen Secondary to penetration, as it is an internal structure</td>
<td>29 %</td>
<td>T, E</td>
</tr>
<tr>
<td>Fossa Navicularis</td>
<td>25 %</td>
<td>T, E</td>
</tr>
<tr>
<td>Cervix</td>
<td>13 %</td>
<td>E</td>
</tr>
<tr>
<td>Prophylaxis Against</td>
<td>Regimen</td>
<td>Alternative</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td><em>Neisseria gonorrhoeae</em></td>
<td>Ceftriaxone 125 mg IM single dose</td>
<td>Cefixime 400 mg orally single dose</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>or</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ciprofloxacin 500 mg orally single dose</td>
</tr>
<tr>
<td><em>Chlamydia trachomatis</em></td>
<td>Azithromycin 1 g orally single dose&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Erythromycin-base 500 mg orally four times daily for 7 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>or</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ofloxacin 300 mg orally twice daily for 7 days</td>
</tr>
<tr>
<td>Bacterial vaginosis</td>
<td>Metronidazole 500 mg orally twice daily for 7 days</td>
<td>Metronidazole gel, 0.75% 5 g intravaginally daily for 5 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>or</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clindamycin cream, 2%, 5 g intravaginally daily for 7 days</td>
</tr>
<tr>
<td><em>Trichomonas vaginalis</em></td>
<td>Metronidazole as given above</td>
<td>Tinidazole 2 g orally single dose&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><em>Hepatitis B (HBV)</em></td>
<td>If not previously vaccinated, give first dose HBV vaccine, repeat at 1-2 and 4-6 months</td>
<td></td>
</tr>
<tr>
<td>Human immunodeficiency virus (HIV)</td>
<td>Consider retroviral prophylaxis if risk for HIV exposure is high</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> For nonpregnant women, doxycycline, 100 mg orally twice daily for 7 days, can be given instead.

<sup>b</sup> Pregnancy category C.

From Centers for Disease Control and Prevention (2006).