Perineal Lacerations
Objectives

- Discuss the classification of perineal lacerations
- Describe the etiology of 3rd and 4th degree lacerations
- Demonstrate techniques for repair
- Discuss complications of 3rd and 4th degree lacerations
History

- Reference to laceration repair dates back to Hippocrates.
- Incidence of lacerations has increased over last 100 years.
  - Increase parallels use of episiotomy.
- Technique for repair has changed little over past 50 years.
Associated Factors I

- Episiotomy
  - medial > mediolateral

- Delivery with stirrups
  - delivery table, lithotomy position

- Operative delivery
  - forceps > vacuum

- Experience of delivering physician
Associated Factors II

- Prolonged 2nd stage of labor
- Nulliparity
- OT or OP positions
- Anesthesia - local and epidural
- Younger age
- Use of oxytocin
## Classification of Lacerations

<table>
<thead>
<tr>
<th>Degree of laceration</th>
<th>Description</th>
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<tbody>
<tr>
<td>First degree</td>
<td>Superficial laceration of the vaginal mucosa or perineal body</td>
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<tr>
<td>Second degree</td>
<td>Laceration of the vaginal mucosa and/or perineal skin and deeper subcutaneous tissues</td>
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<td>Third degree</td>
<td>Incomplete Second degree laceration with laceration of the capsule and part (but not all) of the anal sphincter muscle</td>
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<tr>
<td></td>
<td>complete As above with complete laceration of the anal sphincter muscle</td>
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<tr>
<td>Fourth degree</td>
<td>Complete third degree laceration with laceration of the rectal mucosa</td>
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Prevention

- Avoid assisted delivery
  - Vacuum if needed
- Avoid episiotomy
- Support perineum during delivery
- Allow time for perineal thinning
- Warm soaks or perineal oil massage
Prior to Repair

- Evaluate laceration
- Prepare equipment
  - Instruments
  - Sutures
- Call for assistance
- Provide adequate analgesia
Equipment

- Sponges
- Vaginal pack
- Irrigation
- 2 Allis clamps
- Needle holder
- Sharp tooth tissue forceps
- Sutures - 000 chromic, 00 polyglycolic acid derivative
- Local anesthesia
Anesthesia

- Provide central perineal analgesia
- Local vs. pudendal vs. inhalation
- Anesthetics:
  - Lidocaine
  - Bupivacaine
  - Chlorprocaine
Ilioinguinal and genitofemoral nerve

Dorsal nerve of clitoris

Labial nerve

Inferior rectal nerve

Perineal branch posterior femoral cutaneous nerve

Coccygeal and last sacral nerve

Pudendal Nerve
Ilioinguinal nerve
Genital branch
Genitofemoral nerve
Perineal branch posterior
femoral cutaneous nerve
Dorsal nerve of clitoris
Labial nerve
Ischial spine
Pudendal nerve
Inferior hemorrhoidal nerve
Sacrospinous ligament
Rectal Mucosa

- Identify apex
- Begin closure above apex
- Close with running or interrupted 000 chromic suture
- Transmucosal sutures not recommended
Septum

- Reapproximate rectovaginal fascia
- Run 00- polyglycolic suture
- Goal is decreased dead space, strengthened septum
- Avoid entry into rectal lumen
- Identify ends of sphincter
- Grasp with Allis clamps
- Reapproximate with at least four 00-polyglycolic sutures
- Don’t strangulate
- Begin above apex
- Use chromic or polyglycolic suture
- Close to hymeneal ring
Perineal Body

- New suture, or continue with vaginal suture
- Assess defect
- Close in 1 or 2 layers
- Place “crown stitch” and complete closure
Perineum

- Continue stitch as a subcuticular closure
- Transepithelial stitches not recommended due to increased pain
- Complete closure by bringing suture into vagina for tying
Evaluation of Surgical Repair

- Assure correct sponge, instrument count
- Vaginal exam to assess repair, look for other lacerations
- Rectal exam for:
  - Palpable sutures or defects
  - Intact rectal sphincter
- Repeat repair if any problems discovered
- Write / dictate operative note
The Complicated Repair

- Lateral and multidirectional extensions
- Hemorrhage
- Pain

Consider:
- Additional anesthesia
- Additional assistance
- Consultation
Complications

- Infection
- Dehiscence
- Hematoma
- Rectovaginal fistula
- Rectocutaneous fistula
- Perineal abscess
- Anal incontinence
- Dyspareunia
Etiology of Complications I

- Infection
- Hematoma
- Poor tissue approximation
- Obesity
- Poor perineal hygiene
- Malnutrition
- Anemia
- Constipation
- Blunt or penetrating trauma
Etiology of Complications II

- Forceful coitus
- Cigarette smoking
- Inflammatory bowel disease
- Connective tissue disease
- Prior pelvic radiation
- Hematologic disease
- Endometriosis
Summary

- Avoid episiotomy if possible
- Support perineum at delivery
- Provide hemostasis and good approximation of tissue planes
- Examine repair and rectum
- Stay vigilant for post-op infection and treat judiciously