Essential gynecologic skills: repair of vaginotomy, cystotomy, enterotony

- Review literature about development of laparoscopic suturing skills
- Using video and slides, describe and show each step in laparoscopic figure of N, running the cuff.
- Demonstrate knot technique using running, twist and wrap techniques.
You have two surgeons working in every case

- Your right hand.
- Your left hand.

Needle Driver here at the 67% site

Grasp here at 33%
Keep driver tip in belly of needle arc so can wrap suture around it.
The figure of “N” is a spiral

Pass a figure of N with O vicryl. (not figure 8)

The figure of “8” rips tissue

Diamond configuration of trocars: versatility. Allows surgeon to suture from both sides of the patient.

Surgeon on patient’s left. Surgeon on patient’s right.
• 4” 3-0 silk or vicryl suture.
• Place loose end opposite grasper side (where you will want to find it later).
• Make needle hub point up the grasper to loop twice for the surgeon’s knot.

1. **Localize** the short tail where you want it
2. **Axialize** the hub for double wrap.
3. **Mobilize** together to grasp distal end of short tail.
4. **Disgorge** with axial pull.
5. **Axialize** the hub for double wrap.
6. **Mobilize** together to grasp distal end of short tail.
7. **Disgorge** with axial pull.
Suturing: Paucity of movement is efficiency

- Orient the needle perpendicular to the driver for rotation.
  - know where tip is.
  - won’t jimmyjaw.
- Rotate far enough to re-grasp needle at 33% as you pull it through.
- Pull suture through far enough to leave loose end short.
- Pass second stitch.

1. **Localize** the short tail where you want it.
2. **Axialize** the hub for double wrap.
3. **Mobilize** together to grasp distal end of short tail.
4. **Disgorge** with axial pull.
Needle broke off: Twist tie

- Grasp short tip of suture.
- Pull remainder up length of driver to twist up length.
- Twist the suture to make double loop on driver.

Typically 6-9" of 3-0.
- Place figure of N and tie, then run it.
  - To close cystotomy with 3-0, run suture, then return imbricating first layer, and tie to first knot.
- Tie a lasso or a small loop and load onto driver.

copied from: Croce & Olmi, JSLS, 2000
Challenges in laparoscopy

- **Loss of depth perception.**
  Touch things to regain depth.

- **Loss of tactile feedback.**
  Touch, watch density effect.

- **Fulcrum effect.**
  Move, touch, feel, watch.

Stand at pelvic trainer like you do in OR
Adjust the trainers to get real

- Arrange your camera, driver and grasper ports to absolutely reflect your arrangement in the OR.
  - Camera through jumbo to your right or left.
  - Preceptor can help you to do this.
  - Start early to simulate.
Why Pelvic Trainers?

• Depth and haptic perceptions enhanced.
• Ambidexterity developed.
• Precision of instrument manipulation through trocar increased.

• Repeated practice of manual skills results in improved performance in trainer and in OR.

Holiotomy Challenge I:
Pass a figure of N with 3-O vicryl SH. Tie each with four square knots.

(not figure 8)
Holiotomy Challenge I:
Pass a figure of N with 3-O vicryl SH. Tie each with four square knots.
Holiotomy Challenge II: “Run the cuff”
Using 6” suture: tie “crown” with four knots, run cuff, tie end with four square knots.

Holiotomy Challenge III: “Baseball stitch”
Using 6” suture: tie “crown” with four knots, run baseball (inside to surface), tie end with four square knots.
Pelvic Trainer Etiquette

- Sharps into sharps’ containers.
- Don’t waste suture.
- Don’t waste Holiotomies™
- Keep all the instruments with each pelvic trainer. Do not move them to another trainer.
- If problem with instruments, take them directly to BD or Storz (see labels on instruments)

Thank you!!!!