Transvaginal Surgery for Urinary Incontinence: What’s important in PeriAnesthesia Care

Marianne McAuliffe, MSN, RN
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To Start....

• How to do Kegel exercises
  • Find the right muscles. Identify your pelvic floor muscles that stop urination in midstream. If you succeed, you’ve got the right muscles.
  • Perfect your technique. Once you’ve identified your pelvic floor muscles, tighten your muscles, hold the contraction for five seconds, and then relax for five seconds. Try it four or five times in a row. Work up to keeping the muscles contracted for 10 seconds at a time, relaxing for 10 seconds between contractions.

Kegels

• Maintain your focus. For best results, focus on tightening only your pelvic floor muscles. Be careful not to flex the muscles in your abdomen, thighs or buttocks. Avoid holding your breath. Instead, breathe freely during the exercises.

• Repeat 3 times a day. Aim for at least three sets of 10 repetitions a day.

Urinary Incontinence

• The unintentional leakage of urine
  • 10-30% of women under age 65
  • 50% of women living in nursing homes
  • Medical consequences include:
    Candida infections
    cellulitis
    altered skin integrity

Stigma associated with UI

• Social interruption
• Loss of control of the body
• Speculation as to the “nature of the problem”

4 Types of UI

Stress Urinary Incontinence

• Most common
• Poor pelvic support
• Incomplete closure – urethra
• Vaginal childbirth
• Menopause
• Obesity
• Leaking with activity
• Constant dribbling

(Elstad, Taubenberger, Botelho, & Tennstedt, 2010)

(Edmunds & Mayhew, 2009)
Types of UI

Overactive
- Sudden urge to urinate
- Bladder may not be full
- Rush to BR, leaking!
- Spont. bladder spasm
- Related to ETOH, caffeine
- Nerve damage – diabetes, MS, spinal cord damage

(Mayhew, 2009)

Types of UI

Mixed
- Combination – OAB & SUI
- Urgency and stress
- Which one is worse?

Types of UI

Overflow
- Unable to sense a full bladder
- Build up of urine
- Bladder injury
- Spinal cord injury

(Mayhew, 2009)

Anatomy

Potential treatable causes of UI: DIAPPERS
- D- Delirium
- I- Infection
- A- Atrophic urethritis/vaginitis
- P- Pharmaceuticals
- P- Psychological
- E- Excess Excretion
- R- Restricted mobility
- S- Stool impaction

(Brigham & Women’s Hospital, 2004)
Assessment of patient with Urinary Incontinence

- History & Physical
- Screening - “Do you ever lose control of your urine?”

Exclude Underlying Causes

- Neurologic lesions
- Lower urinary tract lesions
- Blood glucose
- Urinalysis, C & S
- Urine cytology
- Ultrasound
- Fistula

Diagnostic Testing

- Voiding Diary
- PVR
- Q-tip test
- Bimanual / Rectovaginal exam
- Urodynamics testing
  - Cystometry
  - Uroflowmetry
  - Ureteral pressure profile

Urodynamics

Treatment - Behavioral

- Pelvic floor muscle exercises
- Urethral compression; pessary
- Urge suppression
- Bladder training

Treatment – Medications

- Anticholinergic
  - Increase bladder capacity; decrease urgency
    - Solifenacin (VESIcare)
    - Oxybutynin (Ditropan)
    - Tolterodine (Detrol)
    - Darifenacin (Enablex)
Treatment – Medications

- Alpha adrenergic agents
- SNRI – Duloxetine (Cymbalta)
- Estrogen cream or ring
- Botulinum toxin (Botox)
- Combination therapy

Surgery

Minimally invasive surgeries

- Nerve Stimulator
- Injection of urethral bulking agents
- Botox
- Urethral sling

Patient choice for Urethral Sling Procedure

Proper Screening is key!

- No plans for pregnancy
- Asthma is under control
- Non smoker
- URI
- PONV
- Weight
- Lifting restriction

Surgery

- Vaginal puncture sites x2
- Dissecting the tract for the trocar and mesh
- Inserting the trocars
- Cystourethroscopy
- Adjusting sling tension

Urethral Slings

- Inside-out – The trocars are passed from a vaginal incision to exit through bilateral groin incisions
- Outside-in – The trocars are passed from bilateral groin incisions to exit through a vaginal incision

Complications

- Lacerations, Perforations
- Over correction
- Under correction
- Erosion
- Infection
- Vaginal scarring
**Urethral Sling**

- Placement is Key!
- Maintain the mesh!

**PACU**

- Anti-emetics
- Analgesics
- Anti-inflammatory
- Ice pack to perineum

**Post Operative Care**

- Voiding trial
- 1 hour after adm. to PACU
- Post void residual – bladder scanner
- Next steps....

**Post op Voiding**

- 3 things can happen:
  1. The patient voids
  2. The patient has the urge to void, but is unable to
  3. The patient does not have the urge to void- do not let go longer than 1 hour

Bladder scanner for each – Communicate with surgeon:
- Is there an urge to void
- Did the patient void; amount
- What was amount seen on the bladder scanner

Decision to catheterize is made

**Catheters**

- Suprapubic catheters
- Bladder training
- Foley catheters

**Discharge Teaching**

- Nausea, vomiting
- Pain control
- Constipation
- No heavy lifting x 4-6 weeks
- No exercise 3-4 weeks
- No intercourse 1 month
- Normal activities 2 weeks
Discharge Teaching

- Groin pain
- Dyspareunia
- Vaginal perforation
- Vaginal mesh erosion

Voiding –

- Don’t want to have stress on urethra
- Void q 2-3 hours post op
- New normal for voiding
- Voiding diary
- Self catheterization

Transvaginal Sling

Mini Sling

Prevention

- Strengthen your pelvic floor by doing regular Kegel exercises
- Stay at a healthy weight through diet and exercise.
- Resolve constipation issues because excessive straining can weaken the pelvic muscles. Speak with your physician about constipation, making dietary changes and increasing the amount of fiber in your diet.
- Stop smoking. Smoking may cause a chronic cough that weakens your pelvic muscles. Smoking also weakens the tissues that support your pelvic organs. If you smoke, ask your physician about strategies to quit.
- Limit the amount of heavy lifting you do. Speak with your specialist about lifting techniques that won’t put as much stress on your pelvic muscles.

References

References