Pelvic Organ Prolapse in Older Women: What are the Options?
National Gerontological Nursing Association
30th Annual Conference
October 1-3, 2014
Indianapolis, IN

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Objectives

1. Discuss the different types of prolapse, the causes, diagnosis, treatment options.

2. Describe the complications from transvaginal and bladder surgery.

3. Explain the impact prolapse has on a woman’s sexual life.

4. Provide information on approaches for clinicians to discuss pelvic organ prolapse with patients.
Definition

• A medical disorder in which one or more of the pelvic structures drop from their normal position due to failure of pelvic support ligaments and muscles.

• May affect women of any age.

• More common in older post-menopausal women

• At least 50% of women who have had at least one vaginal delivery will experience some type of prolapse in their lifetime.
Types of pelvic organ prolapse

- Cystocele/urethrocele
- Enterocele
- Uterine prolapse
- Vaginal vault prolapse
- Rectocele
Stages of pelvic prolapse

Baden-Walker System for the evaluation of POP

- Stage 0 - no prolapse
- Stage 1 - descent halfway to the hymen
- Stage 2 - descent to the hymen
- Stage 3 - descent halfway past the hymen
- Stage 4 - maximum possible descent for each site

Cystocele/Urethrocele - Etiology

• Loss of support in the anterior vaginal wall
  – Two types:
    – Midline (central) defect
    – Paravaginal or lateral defect

• One of the most common forms of pelvic organ prolapse
Cystocele/Urethrocele – Risk factors

- Obesity
- Menopause
- Heavy lifting
- Smoke and lung conditions
- Chronic cough
- Diseases of the nervous system
- Prolonged labor and childbirth
- Forceps delivery
- Episiotomy
- Hysterecctomy
- Previous prolapse surgery
- Genetics
Cystocele/Urethrocele – Symptoms

- Frequently asymptomatic
- Bulge in vagina or at vaginal opening
- Pelvic pressure or heaviness
- Difficulty urinating or urinary incontinence
- Painful or uncomfortable sex
- Descent of anterior vaginal wall during straining
- Vaginal ulceration, bleeding, infection with complete prolapse
Cystocele/Urethrocele – Treatment

- Weight reduction
- No heavy lifting and straining
- Topical or systemic estrogen replacement as indicated
- Pessary
- Patient education

**Surgical repair:**
- Depends on area of prolapse
- Anterior repair (colporrhaphy) for midline defect
- Laparoscopic paravaginal repair (most common)

**Drugs:**
- Estrogen to prepare tissue for surgical or pessary therapy

**Contraindications:**
- Undiagnosed vaginal bleeding, breast cancer
- Alpha-adrenergic blocking drugs (reduce urethral tone)
- ACE inhibitors have cough as side effect
Enterocoele - Etiology

• Prolapse of the small bowel into the wall of the vagina, usually caused by past damage to the pelvic floor muscles.

• Most commonly after abdominal or vaginal hysterectomy.

• Can also occur in women who have a rectocele with or without a hysterectomy.

• This is a true herniation of the peritoneal cavity into the rectovaginal septum.
Enterocele – Risk factors and Symptoms

Risk factors:
Multiparity
Obesity
chronic cough
heavy lifting
Atrophy from estrogen loss
Tissue weakness

• Symptoms:
  • Asymptomatic
  • pelvic pressure or heaviness
  • Abdominal pain
  • Constipation
  • Diarrhea
  • Bowel obstruction
Enterocele - Treatment

- Weight loss
- Treat chronic cough
- Topical or systemic estrogen if indicated
- Pessary
- Patient education

**Surgery:**
- abdominal or vaginal approach
- 95% success

**Drugs:**
- Estrogen to prepare tissue for surgical or pessary therapy

**Contraindications for estrogen:**
- Do not give if undiagnosed vaginal bleeding, breast cancer

**Special Test:**
- Transillumination of enterocele when it prolapses beyond introitus => may reveal loops of small bowel or omentum
Rectocele

- Loss of normal tissue integrity or tissue disruption as a result of trauma such as childbirth, obstetric injury (forceps delivery), surgery.

- It is a defect of the rectovaginal septum, not the rectum.

- Rectocele is defined as herniation or bulging of the posterior vaginal wall, with the anterior wall of the rectum in direct apposition to the vaginal epithelium.
Rectocele – Risk factors and Symptoms

- Vaginal childbirth
- Chronic intra-abdominal pressure
- Genetics
- Smoking
- Obesity

- May be asymptomatic
- Pelvic pressure
- The need to splint to defecate
- Difficulty defecating
- Fecal incontinence
- Dyspareunia
- Symptoms are relieved by lying down
Rectocele - Treatment

- Weight reduction
- Chronic cough treatment
- Bowel training
- Increased fiber
- Stool softeners
- Pessary
- Pelvic muscle exercises
- Avoid heavy lifting and straining

- Surgery

- Drugs:
  - Estrogen topically or systemically if indicated
  - Contraindicated with breast cancer, undiagnosed vaginal bleeding
Uterine Prolapse - Etiology

- Loss of normal support causing the uterus to drop down into the vaginal canal.

- In extreme cases the uterus descends outside the vagina (procidentia).

- Frequently occurs in combination with other forms of pelvic organ prolapse including a cystocele or a rectocele.
Uterine Prolapse – Risk factors and Symptoms

- **Risk factors:**
  - Childbirth
  - Aging
  - Loss of estrogen
  - Chronic intra-abdominal pressure
  - Tissue weakness

- **Symptoms:**
  - Pelvic pressure or cramping
  - Protrusion coming from the vagina
  - Difficulty evacuating rectum
  - New onset or resolution of urinary incontinence
  - Dyspareunia (painful intercourse)
  - Cervix being hit with intercourse
  - Repositioning of body during bowel movements
  - Chronic inflammation and ulceration of exposed tissue
Uterine Prolapse - Treatment

- No treatment for minimal prolapse
- Weight loss
- No heavy lifting
- Chronic cough
- Pessary for severe prolapse
- **Surgery:**
  - Hysterectomy with colporrhaphy

- **Drugs:**
  - Estrogen and progesterone before pessary fitting or surgery

- **Contraindications:**
  - No drug therapy if undiagnosed vaginal bleeding
Vaginal Vault Prolapse - Etiology

• The uterosacral ligaments no longer provide uterine and vaginal support.

• Common in patients who had a hysterectomy

• Can occur months or years after a hysterectomy with other defects such as a cystocele, rectocele, or enterocele.
Vaginal Vault Prolapse – Risk Factors and Symptoms

- **Risk factors:**
  - Hysterectomy
  - Obesity
  - Chronic cough heavy lifting
  - Childbirth
  - Surgery

- **Symptoms:**
  - Urinary frequency, urgency
  - nocturia,
  - abnormal emptying of the bladder
  - pelvic pain
  - Protrusion
  - Painful intercourse

- With more severe prolapse:
  - Urinary retention
  - Dilated ureter or kidney
Vaginal Vault Prolapse – Treatment

• **Non-surgical options:**
  - Kegel exercises
  - Pessaries

• **Surgical options:**
  - Laparoscopic sacral colpopexy
  - Laparoscopic uterosacral ligament suspension
  - Sacrospinous ligament suspension
  - Colcopleisis
Treatment options

• Observation
  – Watchful waiting
• Life-style changes
• Pelvic floor muscle training
• Pessaries
• Surgery
Life-style changes

– **Stop smoking:**

– Smoking increases risk of prolapse and incontinence
  
  • Reduces blood flow to pelvic floor
  • Chronic cough weakens pelvic floor
  • May directly cause overactive bladder
  • Irritates lining of bladder
  • Causes bladder cancer
Life-style changes

• **Weight loss**
• Obesity increases risk of
  – Prolapse
  – Stress and urge incontinence
  – Bladder infections
  • Likely caused by the increased downward pressure on the bladder and poor hygiene
Life-style changes

• Chronic constipation and straining to pass stools weakens the pelvic floor leading to:
  – Stress incontinence
  – Prolapse

• Improvement of bowel habits
  – Increased fluid intake
  – Increase fiber intake
  – Regulate bowel and bladder function
  – Regular exercise
Pelvic floor muscle training

- Pelvic floor muscle training (Kegel exercises)
  - Can be accomplished by conscious contractions, electrical stimulation, or via biofeedback training
  - Effectiveness of pelvic floor muscle training in reversing or treating pelvic organ prolapse not been studied.
  - Has been shown to improve symptoms associated with stress, urge, and mixed urinary incontinence.
  - Strengthens support of pelvic organs
  - Improves urine control and leakage
  - Improves sexual function
Pessaries

• **Pessary treatment should be considered as first choice regardless of grade of prolapse**

• **Pessaries - advantages**
  – First line therapy for prolapse
  – Avoid surgical intervention
  – Are manufactured from medical-grade silicone
  – Safe, cost-effective, and minimally invasive
  – Come in different sizes and shapes
Pessaries

Two main types of pessaries:

1. Support (e.g., ring most commonly used),
   Treats all stages of organ prolapse
   Sexual intercourse possible with pessary in place

2. Space-occupying (e.g., Gellhorn)
   Most frequently used for vaginal vault prolapse in hysterectomy.
   Sexual intercourse not possible with pessary in place
Pessaries

• Pt has to be fitted for pessary size.

• Fits correctly when pessary is not expelled through Valsalva maneuver or with coughing

• Patient should be able to walk, sit, void, and defecate without realizing that she has a pessary.

• Patient has to be able to place and remove pessary herself.
Pessaries – Follow up

• Two week follow-up after insertion
• Teach patient how to insert, remove, clean pessary
• Should be every 2 weeks or sooner if indicated
• Follow-up in 1-2 months, then 6-12 mos.

• Care of pessary
  – Remove pessary, clean with soap and water
  – Examine vagina for erosion and pressure points

• Side effects:
  – Bleeding
  – Pain
  – Vaginal discharge

• Disadvantages:
  – Require careful fitting
  – Not effective for everyone
  – Can be uncomfortable
  – Can worsen leakage
  – Does not cure the prolapse
  – Topical hormone replacement required in post-menopausal women
Considerations for pessaries

Common complications:
• Irritation of the vaginal wall
• Ulceration
• Bleeding
• Pain
• odor

Contraindications:
• Active genital infection
• Latex sensitivity or allergy
• Noncompliant patient
• Vaginal mesh erosion
Surgery

Considerations:

• Age
• Severity of prolapse
• Type of prolapse
• Pregnancy plans
• Health conditions
• Realistic expectations of surgery outcome
• Full recovery may take weeks or months
• Results may not last
Surgical treatment options

- Two types:
  - **Obliterative surgery**
    - Recommended for women who are poor surgical candidates
    - Narrows or closes off vagina
    - Sexual intercourse not possible after surgery
  - **Reconstructive surgery**
    - Reconstructs the pelvic floor
    - Done through an incision in the vagina, abdominal surgery or laparoscopy
      - Surgery performed vaginally has shorter recovery time.
      - Abdominal surgery costs more and has longer recovery time.
      - Laparoscopic surgery has short recovery time but longer operative time.
Types of reconstructive surgery

- **Anterior vaginal wall prolapse (anterior colporrhaphy)**
  - The anterior wall of the vagina is strengthened with sutures so that it supports the bladder and reduces vaginal bladder protrusion.

- **Posterior vaginal repair (posterior colporrhaphy)**
  - Transvaginal approach, usually for a rectocele
  - Absorbable sutures to eliminate posterior vaginal protrusion
Types of reconstructive surgery

• Vaginal vault prolapse
  – The prolapsed vaginal vault is attached to the uterosacral ligament
  – Grafts and sutures

• Sacrospinous fixation
  – The prolapsed vaginal vault is attached to the sacrospinous ligament on one or both sides.
  – Usually done on right side to avoid rectum and sigmoid colon injury
Types of reconstructive surgery

- **Bladder sling**
  - Has long been the most common way to fix stress urinary incontinence. The way in which the procedure is being completed has come under question.

  - A long piece of surgical mesh is inserted vaginally to support the bladder neck and urethra. =>creates a hammock, of sorts, that puts the urethra into its correct position.

  - The synthetic mesh used in this procedure is known to cause severe complications, including organ perforation, infection and uncontrollable bleeding.
Surgery using surgical mesh

• Sacrocolpexy for apical vaginal prolapse and uterine prolapse
  – Surgical mesh is attached to the vaginal vault and secured to the sacrum.
  – Open laparotomy or laparoscopy
  – Different grafts have been used with variable success rates.
  – Total abdominal hysterectomy for prolapsed uterus

• Sacrohysteropexy
  – Surgical mesh is attached to the cervix and secured to the sacrum.
Surgery using surgical mesh

• Surgery using vaginally placed mesh
  – Surgical mesh is placed through an incision in the vagina to help lift prolapsed organs into place
  – Reinforce repairs made to the vaginal wall

• Controversy about mesh use
• FDA warning in 2008 of several potential complications
  – Erosion through the vagina
  – Infection
  – Urinary problems
  – Recurrence of prolapse and urinary incontinence
  – Pain during intercourse
Surgery using surgical mesh

• FDA issued a statement in 2011:
  – serious complications are not rare with the use of surgical mesh in repair of pelvic organ prolapse.
  – Surgical mesh does not improve symptoms or quality of life more than non-mesh repair
  – Most common complication – erosion through vagina requiring several surgeries to repair

• Website:
  [http://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm262435.htm](http://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm262435.htm)
Surgical complications

- Organ perforation
- Mesh erosion
- Inflammation
- Infection
- Severe pain after surgery
- Recurrence
- Chronic irritation or pain during intercourse

- Direct injury to bladder, urethra, ureters
- Voiding difficulty requiring intermittent self-catheterization
- Deterioration in sexual function (9%)
- Dyspareunia (50%)
- Mortality increases with each decade of life.
Impact of prolapse on older women’s sexual life

- Pelvic floor symptoms are negatively associated with sexual function.
- Studies show lower rates of sexual activity and higher rates of sexual dysfunction using non-surgical treatments.

- Preoperative barriers:
  - Vaginal bulging
  - Vaginal dryness
  - Low desire
  - Low self-image
Impact of prolapse on older women’s sexual life

- Studies assessing sexual function after surgical repair are conflicting.
  - Older women who are sexually active and have pelvic floor symptom distress have decreased sexual functioning.
  - Sexual function was unchanged after vaginal surgery for prolapse and urinary incontinence.
  - Lack of benefit may be due to postoperative dyspareunia.
  - Biggest barrier to sexual activity prior to surgery was vaginal bulging.
Including pelvic organ prolapse in the history

• Women have difficulties:
  ~ Bringing up the topic
  ~ Generally taught in negative terms
  ~ Fear of embarrassing the practitioner

• Practitioners have difficulties:
  ~ Uncomfortable with the topic
  ~ Feel they lack the training/knowledge
  ~ Fear of offending the patient
  ~ Time constraints
Discussing sexuality with pelvic organ prolapse

- Research suggests that open dialogue can improve sexual health.
- However, a 2005 survey showed that only 14% of people aged 40 or older have been asked about sexual difficulties, within the past 3 years by their healthcare providers.

(Pfizer Global Study of Sexual Attitudes and Behaviors, 2005).
Sexual Health Assessment

• Provide comfortable atmosphere.
• Frame careful questions.
• Thorough pelvic exam
  – Patient supine in stirrups performing a Valsalva maneuver
  – Ask patient to strain while standing
  – Assess for vaginal atrophy, prolapse, urogenital problems
• Assess for efficiency of bladder emptying
• Use the Baden-Walker or the Pelvic Organ Prolapse Quantification (POP-Q) system
• Identify underlying conditions.
Questions to Ask

• Do you feel a bulge in your vagina?

• Do you see a bulge that protrudes from your vagina?
• Do you notice any vaginal bleeding or discharge?

• Do you have any sexual difficulties that you would like to talk about?

• Do you have pain during intercourse?
• Are you comfortable talking to your partner about this?
Treatment

• Provide treatment for any concurrent urogenital problems.
  – Teach pelvic floor exercises
  – Evaluate for pessary
  – The use of topical estrogens, and anticholinergic or antimuscarinic agents to improve sexual function as well as general well-being.

• Offer appropriate drug therapy
  – topical or systemic, if necessary.

• Discuss the various methods of sexual expression (masturbatory, orogenital techniques, etc.)
Conclusion

- Ask your patients with pelvic floor symptoms about sexual problems.
- Practice the skills that promote open and candid communication.
- Acquire the knowledge to feel comfortable to broach the subject.
- Ensure that the older woman patient receives the best possible care.
References

- https://www.youtube.com/watch?v=rnMz2XTogbE Vaginal pessary for prolapse
- https://www.youtube.com/watch?v=ak5JkJTiu0E Understanding pelvic prolapse
References

Questions?