Non-Surgical Treatment of Pelvic Organ Prolapse

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Learning Objectives
• Discuss surgical and non-surgical options for symptomatic anterior, apical, and posterior prolapse
• Discuss role of pelvic floor physical therapy in management of prolapse
• List factors which impact successful pessary fitting for prolapse, including: stage, genital hiatus, uterus, etc
• Fit and manage prolapse pessaries
• Discuss the advantages and disadvantages of the following pessary types
  – Donut
  – Gellhorn
  – Gehring
  – Lever
  – Cube
• Discuss the role of estrogen replacement therapy (systemic vs local) in women using pessary for prolapse
  – Explain how recommendations differ based on presence or absence of uterus
Non-surgical Treatment Options for Symptomatic Vaginal Prolapse

What is the evidence?

- Expectant Management/Observation
- Pelvic Muscle Exercises
- Pessary

Who are candidates?

- Conservative or non-surgical management of POP should be offered to all patients
- Patient motivation is KEY to non-surgical management of POP

Hay Smith et al, ICI, 2009

Conservative Therapy = Less Risk

- The absolute risk of death is low for urogynecologic surgery
- Older women have a higher risk of mortality and morbidity following urogynecologic surgery:
  - Increasing age is associated with an increased risk of death (compared to women <60 years old):
- Risk of peri-operative complications was also higher in women 80 years of age and older (OR 1.4 [95% CI 1.3-1.5]) compared with younger women

Sung et al, 2006
Surgery vs Non-surgical Approach

• Prospective cohort study in women with symptomatic prolapse
  – Offered surgical versus pessary treatment
• 251 women chose surgery, 429 women chose pessary
  – There was no difference regarding prolapse stage, leading edge, previous POP surgery and hysterectomy
• Women choosing surgery were:
  – Younger (58 vs 66)
  – More bothered with "dragging", lower abdominal pain, need for vaginal digitation
• More women choosing surgery were sexually active and perceived prolapse interfering with sexual satisfaction
• In general, women choosing surgery had more severe symptoms related to bowel emptying, sexual function and quality of life
• Overall POP symptom distress was comparable
• Treatment approach may not be totally driven by symptoms
• Offer to all patients!!

Kapoor, 2009

Expectant Management

• Allows patient to monitor symptoms
• Ideal for patients with minimal bother
• Would not offer:
  – Patients with difficulty emptying bowels and bladder
  – Significant vaginal erosion
  – Inability to reduce prolapse

Pelvic Floor Muscle Exercises

• Few studies exist for PFMT/behavioral therapy treatment of pelvic organ prolapse
• Most are small (until recently), descriptive
• Short-term follow-up
• Patients with mild/moderate prolapse
Bottom Line for PFMT for POP

- May expect subjective and objective improvements
- Most likely best for stage I and II POP
- Low risk
- Requires motivated patient

Pessary

- Pelvic organ prolapse treatments have had a variable course through history……..

Reasons to Consider Pessary Trial

- Symptomatic prolapse and patient’s desire for non-surgical intervention
- Medical contraindications to surgery
- Desire to postpone/delay surgical intervention
- Vaginal ulcerations caused by severe POP
- Younger women with prolapse or incontinence who plan to have children or additional children
- Diagnostic tool (prediction of surgical outcome)
- Prevention of increasing prolapse

Atnip et al 2012; Clemons 2012
Do Pessaries Work?

- **Short-term studies (2-6 months):**
  - Satisfaction and continued use 81% (range 63-92%); 59% (40-77%) ITT. Cundiff et al, 2007; Wu et al, 1997; Nguyen et al, 2005; Mats et al, 2006; Handa and Jones, 2002; Clemons, 2004.

- **Medium-term (1-2 years):**
  - Satisfaction and continued use 62% (53-83%); 40% (30-63%) ITT. Powers et al, 2006; Cundiff et al, 2007; Wu et al, 1997; Nguyen et al, 2005; Handa and Jones, 2002; Friedman et al, 2010; Clemons, 2004; Patel et al, 2010.

Clemons 2012

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Long-term Outcomes

- Lone and colleagues performed a prospective observational study of subjects successfully fit (187/246) – 86.1% successfully utilized the pessary over 5 years
- Minor complications included:
  - Pain or discomfort (6.9%)
  - Excoriation or bleeding (3.2%)
  - Disimpaction or constipation (2.0%)¹

- A retrospective study involving 167 women described a 14% continuation rate over 14 years²


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Patient Selection Considerations

- Patient’s motivation
- Current sexual function
- Type and duration of exercise regimen/ other activity level
- Current condition of vaginal walls/cervix
- Surgical History
Potential Contraindications

- Local infection
- Atrophy
- Exposed vaginal foreign body (mesh)
- Latex sensitivity (inflataball)
- Non-compliance
- Most Important: Patient cannot comply with follow-up (dementia or transportation issues)
- Persistent vaginal erosions
- Sexually active women unable to remove/insert pessary

Clemons, 2012

Pessary Characteristics

- Made of silicone
  - Do not retain odors
  - Non-allergenic
  - Durable
  - May be autoclaved

- Two main types
  1. Support
     - Ring (with or without support), lever, Gehrun, incontinence ring or dish
  2. Space-filling
     - Gellhorn, donut, cube, inflato-ball

Most Common Types Used for POP

- Ring
- Gellhorn
- Cube
- Donut
What factors are related to successful pessary fitting?

- A retrospective chart review of 1216 patients
  - Patients on local estrogen therapy
  - Those fit with:
    - Ring
    - Ring with support
    - Gellhorn
  - Patients with a previous history of abdominal prolapse surgery (compared to vaginal approach)
- Successful fitting in 2 visits
- Usually 2 pessary types attempted

Hanson LM et al, 2006.

Unsuccessful fitting

- Prior prolapse surgery
- Prior hysterectomy
- Short vaginal length (≤6 cm)
- Wide vaginal introitus (4 fingerbreadths)
- Concurrent POP and UI
- Younger age
- Obesity

Who continues to use the pessary at 1 year?

- Prospective evaluation of 59 women who were satisfied with their pessary 2 months post-fitting
  - 73% continued pessary use
  - Factors associated with continued pessary use:
    - Older age (65 years old was cut-off)
    - Poor surgical risk
  - Factors associated with surgery:
    - Sexual activity
    - Stress incontinence
    - Stage III-IV posterior wall prolapse

Advantages/Disadvantages of Pessary Types

- Start with support type (vs space-filling)
  - More easily removed and inserted
  - May allow intercourse while in place
  - Often more comfortable

Clemons, 2012

Ring with and without support

- Pros
  - Able to fold (easiest to insert/remove)
  - Prolapse and UI
  - Intercourse possible while in place
  - Drainage holes (with support)

- Cons
  - May not be effective for higher stage prolapse with enlarged genital hiatus

Gellhorn

- Pros
  - Base provides good support to apex ( convex surface)
  - Often used if ring does not stay in place due to introital laxity
  - Drainage holes

- Cons
  - More difficult to insert/remove (due to suction, may need ring forceps for those kept in situ)
  - Remove for sexual activity
Donut

**Pros**
- More difficult to insert and remove (rounded without defined edges; may need tenaculum, may need to deflate)
- Good for massive vault/uterovaginal prolapse/large posterior defects—remove for sexual activity

**Cons**
- Genital hiatus must be of sufficient size to admit, yet smaller than pessary
- Increased vaginal discharge

Gehrung

- Rarely used because difficult to place
- Tends to rotate out of proper position
- Can be manually molded to fit type and size of prolapse (convexity toward bulge)

Lever (Smith, Hodge and Risser)

- Originally designed for uterine retroversion (used for uterine prolapse/cystocele)
- Difficult placement (wedged behind pubic bone)
- Can leave in for sexual intercourse
- Rarely used

Cube (6 concave sides)

- Suction to vaginal walls/difficult removal
- Highly effective for many types of prolapse
- Cannot be left in place long periods: erosions/discharge

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**Role of ERT (systemic vs local) in Women Using Pessary for Prolapse, cont.**

- NAMS published a position statement reflecting that intravaginal estrogen more effective than systemic for urogenital atrophy; progesterone is generally not indicated when low-dose intravaginal estrogen is administered locally for atrophy (individualize), NAMS, Menopause, 2010 and 2007
- Cochrane review concluded that estrogen creams, tablets, and vaginal rings were all equally effective at management of atrophy, Suckling et al. Cochrane Database Syst Rev, 2006
- Recommendation to use estrogen cream up to 3X per week with continued pessary use, Arias et al, 2008; Sarma et al, 2009
Common Problems

- Erosion
  - If an erosion does not heal consider a biopsy
- Most common side effects of pessary use are:
  - Vaginal discharge
  - Odor

Complications

- Vaginitis
  - Bacterial vaginosis
- De novo incontinence
- Bleeding
- Ulceration of vagina
- Embedded/Incarcerated cervix or uterus

Severe Complications

- Visceral obstruction
- Vesicovaginal and rectovaginal fistula
- Fecal impaction
- Hydronephrosis and urosepsis
- Cancer
  - 2.6% of cervical cancers and 30% of vaginal cancers in a series of 2500 patients treated in France since 1971
  - 93/96 tumors occurred at the site of contact
  - Mean time from insertion to diagnosis was 18 years

Schnaub et al., 1991.
Bottom-Line Complications

• Severe complications are rare
• Almost all are preventable with close vigilance
• Discuss importance of follow-up with the patient and family
• Treat erosions early

Conclusions

• Offer to all patients with POP
• Data regarding long-term satisfaction and continued use, unclear
• Should be a part of the full spectrum of treatment options for patients with POP

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