Urinary Incontinence

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Learning Objectives

- Define the various forms of urinary incontinence
- Learn to appropriately diagnose and evaluate urinary incontinence
- Become familiar with the various treatment options for urinary incontinence
Definition

- “inability of the body to control the evacuative functions of urination or defecation”
- “involuntary loss of urine or feces”
Urinary Incontinence

- Stress Urinary Incontinence (SUI)
- Urge Urinary Incontinence (UUI)
- Overflow Urinary Incontinence (OUI)
- Mixed Urinary Incontinence (MUI)
Stress Urinary Incontinence

- Involuntary discharge of urine as a result of an increased abdominal pressure and in the absence of a detrusor contraction
- Most often caused by a weakness of the pelvic floor/urethral support
  - SUI secondary to urethral hypermobility
- Less often caused by an inadequate urinary sphincter
  - Intrinsic sphincter deficiency (ISD)
Urge Urinary Incontinence

- Involuntary discharge of urine as a result of an involuntary contraction of the bladder
- Typically caused by bladder spasms/contractions
  - Idiopathic
  - Neurogenic
How Do We Diagnose Urinary Incontinence?

- History
- Physical Examination
- Objective Measures
- Urodynamic Evaluation
What questions should we be asking to diagnose the form of incontinence and obtain a thorough history?

- Do you leak urine if you laugh, cough, sneeze, lift, or exercise? (SUI)
- Do you ever have a sudden urge and can’t reach the bathroom in time? (UUI)
- Do you leak urine while sleeping at night? (UUI)
- How often do you void during the day? Night?
- Do you wear pads? How many?
History

- Have you ever seen blood in your urine?
- Do you have frequent urinary tract infections?
- Do you feel as though you empty completely?
- Do you have a sensation of pelvic organ prolapse (POP) - sitting on an egg or experiencing a bulge in the vaginal area?
- Have you had children?
- Have you had a hysterectomy?
History

- Do you have any bowel issues – fecal incontinence or chronic constipation?
- Have you ever been treated for this problem?
- Do you have any issues with chronic pelvic pain or dyspareunia?
- Do you have any neurologic issues – history of strokes, MS, spinal stenosis, recent back surgeries? (UUI)
Physical Examination

- Cough Stress Test – if negative, evaluate in the standing position
- Assess for urethral hypermobility
Physical Examination

- Complete a speculum exam evaluating for POP
Physical Examination

- Assess for complete emptying either by catheterization or bladder scan for a post void residual
- Evaluate the vagina for evidence of scarring and/or atrophy
Physical Examination

- Assess for the ability to perform a Kegel exercise
- Assess pelvic floor tone and rule out tenderness of the pelvic floor muscles
Objective Measures

- Voiding diary
- Number of Pads
- Pad weight testing
Urodynamic Testing

- Testing is **NOT** warranted for every patient with incontinence, especially isolated SUI
- Testing is helpful for the following scenarios:
  - Prior incontinence surgery
  - Concomitant POP
  - Inability to diagnose based on history
  - MUI
  - Inability to demonstrate UI
Treatment Options

- Treatment options vary depending on the form of incontinence
- Many times more than one treatment is warranted to cure UI, especially MUI.
- Remember concomitant symptoms/diagnoses when choosing treatment options.
Treatment: SUI

- There are no FDA approved medications for SUI
- Most common treatments include:
  - Pelvic Floor Physical Therapy
  - Mid-Urethral Sling
  - Urethral Bulking Agent
Pelvic Floor PT

- Excellent first-line therapy
  - Behavioral modifications
  - Strengthen the pelvic floor
- Success defined as > 50% reduction in incontinence episodes, rate = 56%
- Ideal therapy for patients with MUI or those with pelvic pain
- Success of therapy is directly proportional to the patient’s motivation as well as the skill of the therapist.
Mid-Urethral Sling

- Outpatient surgical procedure
- Use of either synthetic or fascial materials
- There is **NO FDA WARNING** concerning traditional vaginal slings
- Urethral hypermobility
- Success = 85%
Urethral Bulking Agents

- Office or outpatient procedure
- Use of a synthetic material to bulk or narrow the urethral lumen for ISD
- Success varies (13%-60%)
Treatment: UUI

- Pelvic Floor PT
- Overactive Bladder Medical Therapy
- Intravesical Botox Injections
- Neuromodulation
You should see noticeable symptom improvement (> 50%) in a period of 1-3 months with minimal side effects.
Pelvic Floor PT

- Excellent first-line therapy
  - Behavioral modifications
  - Strengthen the pelvic floor as well as decrease heightened tone
- Success defined as > 50% reduction in incontinence episodes, rate = 56%
- Ideal therapy for patients with MUI or those with pelvic pain
- Success of therapy is directly proportional to the patient’s motivation as well as the skill of the therapist.
OAB Medical Therapy

- Anticholinergics – Detrol, Ditropan, Enablex, Gelnique, Oxytrol, Sanctura, Toviaz, Vesicare
- B-agonist - Myrbetriq
  - Side effects: Dry mouth, constipation, facial flushing, mental status changes, hypertension (Myrbetriq)
Intravesical Botox Injections

- Injection of Botox into the bladder via cystoscopy
- Risks: infection, urinary retention
- Success: 75% - 85%

Urology of Central PA 4/23/16
Neuromodulation

- InterStim: Staged procedure for the patient to trial the device – stimulate S3
- Risks: infection, device malfunction, no MRIs below the neck
- Approved for fecal incontinence
- Success = 75-80%
<table>
<thead>
<tr>
<th>InterStim</th>
<th>Botox</th>
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<tbody>
<tr>
<td>• Pacemaker for bladder/bowel implanted into the buttocks with a small lead near the tailbone – not the spine</td>
<td>• Naturally occurring botulinum toxin has been used for many years to paralyze muscles in spasm (such as hand or eye tremors)</td>
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<td>• Stimulation from electrical impulses helps to regulate bladder and bowel reflexes that cause urinary and fecal urgency, frequency, and incontinence</td>
<td>• Injected through a scope into the bladder, calming bladder muscle spasms</td>
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<td>• Office or hospital trial</td>
<td>• Can be given in office or hospital setting</td>
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<td>• Takes only days to weeks to work</td>
<td>• Works within days, lasts for 6-12 months</td>
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<td>• Normalizes control of the bladder and bowel’s natural reflexes</td>
<td>• Can be effective even when all else has failed</td>
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<td>• Can be completely reversed at any time by turning off/removing</td>
<td>• Approved for patients with neurologic conditions</td>
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<td>• Good long-term results/benefits</td>
<td>• No patient participation to achieve the benefit</td>
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<td>• Treats urinary retention</td>
<td>• Covered by Medicare and most insurances</td>
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<tr>
<td>• MRI restrictions</td>
<td>• Requires re-injection every 6-12 months</td>
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<td>• Requires minor surgery to implant</td>
<td>• May cause urinary retention in some (10-30%) requiring intermittent catheterization to empty the bladder</td>
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<td>• Risk of infection after implant (3%)</td>
<td>• Does not help with bowel issues</td>
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<td>• The patient must learn to regulate the device to have the best outcome</td>
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<td>• May requiring programming visits</td>
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<td>• Can be damaged with a hard fall</td>
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<td>• May require reoperation</td>
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<td>• New battery needed in 3-5 years</td>
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Summary

- Urinary incontinence is a common problem.
- It is essential that the correct form of incontinence be diagnosed to ensure appropriate treatment selection.
- Treating these patients and improving their quality of life is extremely rewarding for both you and your patients.
- Do not hesitate to ask for help if your patient is not responding to conservative treatment options.
QUESTIONS?

Thank you😊