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Surgical Treatment of Female Stress Urinary Incontinence: AUA/SUFU Guideline

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DISCLOSURES

Kathleen C. Kobashi, MD, FACS

Allergan: Advisory Board, Speaker

Astellas: Speaker

Medtronic: Advisory Board, Speaker, Investigator



PURPOSE

- SUI common
- Negatively impacts quality of life
- Treatment options evolving
- Herein:
 - Algorithm for treatment
 - Data regarding treatment options



SYSTEMATIC REVIEW

- Comprehensive literature search by ECRI
 - January 1, 2005-December 31, 2015
 - Additional abstract search through September 2016
- Study designs:
 - Systematic reviews
 - Randomized controlled trials
 - Controlled clinical trials
 - Observational studies



METHODOLOGY

A

- **Well conducted RCT's**
- **Exceptional observational studies**

B

- **RCT's and/or observational studies with some weaknesses**

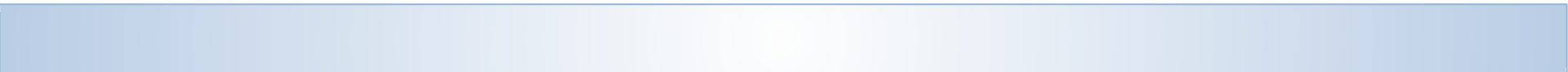
C

- **Observational studies that are inconsistent -difficult to interpret**

- Strong, Moderate or Conditional Recommendations
- Expert Opinion
- Clinical Principle



BACKGROUND

- Prevalence of SUI as high as 49%
 - Surgical options evolving
 - This is 3rd SUI guideline
 - Continual updates will be needed
- 



INDEX PATIENT

- Healthy female considering surgery for SUI
- No previous SUI surgery
- Included low stage/grade prolapse
 - Stage/grade not always specified



NON-INDEX PATIENT

- High grade pelvic prolapse (stage 3 or 4)
- MUI (non-SUI predominant)
- Elevated post-void residual (PVR)
- Voiding dysfunction
- Prior surgery for SUI
- Recurrent/persistent SUI
- Mesh complications
- High body mass index (BMI)
- Neurogenic lower urinary tract dysfunction
- Advanced age (geriatric)



GUIDELINE STATEMENTS

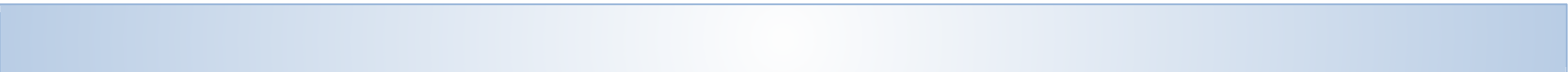
PATIENT EVALUATION

- Initial evaluation of patients with stress urinary incontinence
 - History
 - Physical
 - Diagnostics
- Additional evaluations in patients who have additional conditions
 - OAB, prior POP surgery, failure of prior surgery, etc.



GUIDELINE STATEMENTS

CYSTOSCOPY AND URODYNAMICS TESTING

- Cystoscopy shouldn't be performed in the index patient unless there is concern for urinary tract abnormalities
 - Urodynamic testing may be omitted in the index patient when SUI is clearly demonstrated
 - Urodynamic testing may be performed in the non-index patient
- 



GUIDELINE STATEMENTS

PATIENT COUNSELING

- Degree of bother caused by a patient's symptoms should be considered in the decision for therapy
- Counseling of patients with SUI or stress-predominant MUI regarding treatment options
 - Observation
 - Pelvic floor muscle training
 - Other non-surgical options
 - Surgical intervention
- Complications specific to treatment options
- Risks, benefits and alternatives to mesh



GUIDELINE STATEMENTS

TREATMENT

- Non-surgical treatment options
 - Continence pessary
 - Vaginal inserts
 - Pelvic floor muscle exercises
- Surgical options for the index patient
 - Midurethral sling (synthetic)
 - Autologous fascia pubovaginal sling
 - Burch colposuspension
 - Bulking agents



GUIDELINE STATEMENTS

TREATMENT

- Retropubic or transobturator for midurethral sling surgery
 - TMUS (in-to-out versus out-to-in)
 - RMUS (bottom-up or top-down)
- Single incision slings for index patients and the immaturity of data
 - Many trials utilized the TVT-Secur , which has been removed from the market
- Inadvertent injury at the time of planned midurethral sling procedure
- Stem cell therapy outside of investigative protocols



GUIDELINE STATEMENTS

SPECIAL CASES

- Patients with a fixed, immobile urethra who wish to undergo treatment
- Patients undergoing concomitant urethral diverticulectomy, repair of urethrovaginal fistula or urethral mesh excision and stress incontinence surgery
- Avoidance of mesh in patients undergoing stress incontinence surgery who are at risk for poor wound healing
- Concomitant surgery for pelvic prolapse repair and SUI
- Patients with concomitant neurologic disease affecting lower urinary tract function
- MUS for other patient populations (planning to bear children, diabetes, geriatric, obesity)



GUIDELINE STATEMENTS

OUTCOMES ASSESSMENT

- Communication with patients within the early postoperative period
 - **Obstruction**
 - **Dyspareunia**
 - **Persistent pain**
 - **Frequent UTI**
 - **Mesh-specific complications**
- Examination within six months postoperatively



FUTURE RESEARCH

- Patient education
 - Pts who understand their condition and rationale for treatment, more satisfied with outcomes
- Telemedicine
 - Potential TM for chronic pelvic floor disorders
- Stem cell therapy
 - Stem cell Injection for SUI compelling

Female Stress Urinary Incontinence: AUA/SUFU Evaluation and Treatment Algorithm

EVALUATION (INDICATIONS)

Initial evaluation

The initial evaluation of patients desiring to undergo surgical intervention should include the following components:

- History
- Physical exam
- Demonstration of SUI
- PVR assessment
- Urinalysis

Cystoscopy

Should not be performed unless there is a concern for lower urinary tract abnormalities

Urodynamics

May be omitted when SUI is clearly demonstrated

Additional evaluation

Additional evaluation **should** be performed in the following scenarios:

- Lack of definitive diagnosis
- Inability to demonstrate SUI
- Known/suspected NLUTD
- Abnormal urinalysis
- Urgency-predominant MUI
- Elevated PVR
- High-grade POP (if SUI not demonstrated with POP reduction)
- Evidence of significant voiding dysfunction

Additional evaluation **may** be performed in the following scenarios:

- Concomitant OAB symptoms
- Failure of prior anti-incontinence surgery
- Prior POP surgery

In patients who wish to undergo treatment, physicians should counsel regarding the availability of observation, pelvic floor muscle training, other non-surgical options, and surgical interventions. Physicians should counsel patients on potential complications specific to the treatment options.

TREATMENT

Non-Surgical

- Continence pessary
- Vaginal inserts
- Pelvic floor muscle exercises

Surgical

- Bulking agents
- Midurethral sling (synthetic)
- Autologous fascia pubovaginal sling
- Burch colposuspension

If a midurethral sling surgery is selected, either the retropubic or transobturator midurethral sling may be offered. A single-incision sling may be offered to index patients if they are informed as to the immaturity of evidence regarding their efficacy and safety. Physicians must discuss the specific risks and benefits of mesh as well as alternatives to a mesh sling.

SPECIAL CASES

1. Fixed immobile urethra

- Pubovaginal sling
- Retropubic midurethral sling
- Urethral bulking agents

2. Concomitant surgery for POP repair and SUI

Any incontinence procedure

3. Concomitant NLUTD

Surgical treatment following appropriate evaluation and counseling

4. Child-bearing, diabetes, obesity, geriatric

Surgical treatment following appropriate evaluation and counseling

MUI= mixed urinary incontinence; NLUTD= neurogenic lower urinary tract dysfunction; OAB= overactive bladder; POP= pelvic organ prolapse; PVR= post-void residual; SUI= stress urinary incontinence



ACKNOWLEDGEMENTS

Stress Urinary Incontinence Panel

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GUIDELINE COURSE
Monday, May 15
730-930am