

# How to manage the stress urinary incontinence women in geriatrics?

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# SUI in geriatrics

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- Prevalence increases with **age**
- **unreported** and **undertreated**
- decline in the overall physical, mental and psychological health
- significant social implications
- public health concern for the elderly

**Table 1. Examples of comorbidity causing or worsening UI in older persons**

Aspect of Continence Affected	Comorbidity
Ability to get to toilet	Functional impairment, e.g., from arthritis, Parkinson's, poor vision Extrapyramidal effects of antipsychotic medications Medications causing sedation or confusion, e.g., benzodiazepines Poor access to toilets Severe cognitive impairment: advanced dementia, severe depression
Fluid balance	Excessive intake of caffeinated beverages, alcohol Increased nocturnal diuresis from congestive failure, sleep apnea, venous stasis, or drugs causing peripheral edema (e.g., amlopidine, thiazolidinediones, gabapentin) Diuretic medications
Urethral closure	Marked obesity Cough because of pulmonary disease, ACE inhibitors Increased urethral tone from alpha adrenergic agonists, decreased tone from alpha blockers
Bladder contractile strength	Medications impairing bladder contractility: calcium channel blockers, anticholinergics, opiates Diabetes (advanced), vitamin B <sub>12</sub> deficiency, lower spinal cord injury
Uninhibited bladder contractions	CNS diseases, stroke, suprasacral spinal cord diseases Diabetes Local bladder irritation: stones, carcinoma

# Review of systems

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- pelvic organ prolapse
- persistent incontinence or recurrent incontinence after previous incontinence surgery
- history of pelvic irradiation
- prior radical pelvic surgery
- suspected fistula

# office evaluation

Table 1. Clinical Evaluation of Urinary Incontinence in the Elderly

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Step 1: Detection of anatomical lesions and transient incontinence causes

History

Urinalysis

Imaging studies (discretionary) : x-ray, sonography, endoscopy

Step 2: Physical examination

Male urological examination

Female gynecological examination

Stress test

Focused neurological examination

Step 3: Functional evaluation

Urinary diary

Questionnaires

Post-void residual (PVR) volume

Urodynamics (discretionary)

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# Transient Incontinence

Table 2. The Mnemonic "DIAPPERS" for Transient Incontinence

Delirium	Pharmacological effect
Infection	Excess urine output
Atrophic vaginitis	Restricted motility
Psychological disorder	Stool impaction

# Treatment

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- Life style intervention

1. Fluid moderation
2. Weight reduction
3. Reduction of coffee intake & cigarette smoking

# Treatment

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- Pelvic floor muscle training

1. Kegel exercise

2. Biofeedback

3. Electrical stimulation



# Treatment

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- Bladder training
  1. Scheduled voiding (time voiding)
  2. Urgency control strategy (deep breath, transfer attention, tighten buttocks)

# Treatment

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## Surgical treatment

1. minimally invasive mid-urethral sling procedures, such as the tension-free vaginal tape, are safe and effective in older women
2. older women had an increased odds of SUI treatment failure (adjusted odds ratio, 1.10; 95% CI, 1.05-2.5)

Sung VW et al, Am J Obstet Gynecol, 2009; 201: 534e1–5.

# Midurethral sling procedures for stress urinary incontinence in women over 80 years

Kobi Stav<sup>1</sup>, Peter L Dwyer, Anna Rosamilia, Lore Schierlitz, Yik N Lim, Joseph Lee

1. Comparison between elderly ( $\geq 80$  years,  $n = 96$ ) and younger patients ( $< 80$  years,  $n = 1016$ )
2. subjective cure rate was 85% (elderly 81%, younger 85%,  $P = 0.32$ ).
3. no significant difference in cure rate between retropubic and transobturator sling in the elderly group (82% vs. 79.3%,  $P = 0.75$ ).
4. bladder perforation rate was similar between two groups (3%).
5. hospitalization time was significantly longer in the elderly ( $1.6 \pm 1.7$  days vs.  $0.7 \pm 1.1$  days,  $P < 0.001$ ).

# Midurethral sling procedures for stress urinary incontinence in women over 80 years

Kobi Stav<sup>1</sup>, Peter L Dwyer, Anna Rosamilia, Lore Schierlitz, Yik N Lim, Joseph Lee

## Conclusion:

- Retropubic and transobturator slings in women older than 80 years are effective and safe
- increased risk of transient postoperative voiding difficulty

# Impact of age on outcomes of midurethral sling procedures in women

So Hyun Ahn<sup>1</sup>, Yun Jin Park<sup>1</sup>, Mi Kyung Kong<sup>1</sup>, Sang Wook Bai<sup>2</sup>

1. 81 patients in group 1 ( $\leq 50$  years), 97 patients in group 2 (51-59 years), and 84 patients in group 3 ( $\geq 60$  years)
2. no significant differences in cure rates among the three groups
3. no significant differences in operation time, blood loss, hospital stay, and complication rate among the three groups.

# Impact of age on outcomes of midurethral sling procedures in women

So Hyun Ahn<sup>1</sup>, Yun Jin Park<sup>1</sup>, Mi Kyung Kong<sup>1</sup>, Sang Wook Bai<sup>2</sup>

## Conclusions:

As surgical management for SUI, midurethral sling procedures, both TOT and TVT, were found to be safe and effective among different age groups.

# Risk factors for mesh erosion after vaginal sling procedures for urinary incontinence

M K Kokanali <sup>1</sup>, M Doğanay <sup>2</sup>, O Alsakal <sup>2</sup>, S Cavkaytar <sup>2</sup>, H O Topçu <sup>2</sup>, İ Özer <sup>2</sup>

- more often after TOT than TVT.
- Older age(>60), diabetes mellitus, smoking, length of vaginal incision >2 cm, recurrent vaginal incision for postoperative complications, and previous vaginal surgery for pelvic organ prolapse or incontinence increased the risk of mesh erosion.

# The Transobturator Tape Versus Retropubic Tension-Free Vaginal Tape in the Treatment of Comorbid and Elderly Women With Stress Urinary Incontinence: A Retrospective Analysis of Over 800 Women

Sabine Schütze<sup>1</sup>, Joana Behre<sup>1</sup>, Benedikt Heitmeir<sup>1</sup>, Juliane Schütze<sup>2</sup>, Davut Dayan<sup>1</sup>,  
Wolfgang Janni<sup>1</sup>, Miriam Deniz<sup>1</sup>

- Age, BMI, and comorbidities showed no significant impact on intraoperative complications
- TOT procedure was associated with significantly fewer intraoperative complications [ $p=0.001$ , odds ratio (OR): 0.281].



# Outcomes and failure risks in mid-urethral sling insertion in elderly and old age with urodynamic stress incontinence

Tsia-Shu Lo<sup>1 2 3</sup>, Nagashu Chailaj<sup>4</sup>, Yiap Loong Tan<sup>5</sup>, Ming-Ping Wu<sup>6 7</sup>, Sandy Chua<sup>8</sup>, Kwok Weng Roy<sup>9</sup>

1. young <64 yr, elderly 65-74 yr and old >75 yr
  2. Among the young, elderly, and old age women objective cure rates were 91.0%, 80.6%, 66.7% and subjective cure rates were 89.2%, 77.6%, 58.3%
  3. Urodynamic parameters demonstrated flow rate, higher post-void bladder residual, smaller cystometric capacity, and lower maximum urethral closure pressure were significantly lower among old and elderly group.
- objective and subjective cure rates decreases with age.

# Treatment Urethral Bulking Agents



## HHS Public Access

Author manuscript

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### Outcomes of Surgery for Stress Urinary Incontinence in the Older Woman

1. do not want to undergo more **invasive surgery** or who are **not surgical candidates** due to medical comorbidity.
2. Advantages of injectable urethral bulking agents, especially in **older** women, include that this is a procedure **easily performed in the office setting**, that many women **tolerate well without anesthesia**, and **anti-coagulation does not always need to be stopped** prior to injections.



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## Outcomes of Surgery for Stress Urinary Incontinence in the Older Woman

- suitable for patients with moderate SUI due to **intrinsic sphincter deficiency**
- Initial improvement rates of 85 % are maintained at 2 years with polydimethylsiloxane
- Outcomes seem to be **unrelated to age**

Monga AK, et al Periurethral collagen injections for genuine stress incontinence: a 2-year follow-up. *Br JUrol.* 1995;76:156–60.

# Urinary incontinence in elderly

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- multifactorial issue, often arising from a combination of physical, cognitive and functional dysfunction
- signals a decline in overall health and functioning of an older individual
- impacting not only the quality of life but also increasing their dependency and care needs.
- Detailed assessment and an individualized approach to management may decrease severity of symptoms