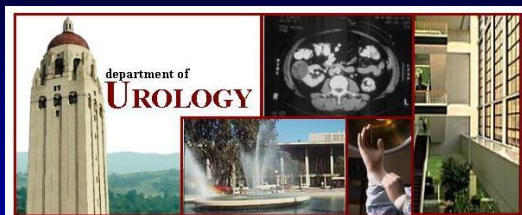


Stanford University Urology



Synthetic Midurethral Slings: The next best thing?

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Sling Options

- Position
 - Bladder neck
 - Mid-urethra
 - Retropubic
 - Transobturator
- Material
 - Autologous
 - Biomaterial
 - Synthetic
- Length
 - Full
 - Hemi
 - Patch

Leading Choices in 2004

- Autologous bladder neck hemi sling
 - McGuire/Blaivas type procedure
- Percutaneous, retropubic, midurethral synthetic sling
 - TVT

Other Considerations:

- Burch suspension
- Biomaterial bladder neck sling

Patient Factors

- Prior surgery for incontinence
- Hypermobility
- Associated prolapse
- Obesity, chronic cough, etc.
- Severity of SUI
- Associated urgency/detrusor instability
- Patient expectations

Argument

The TVT procedure is the best option for the index patient with SUI

- No prior surgery
- Bladder neck mobility
- No significant prolapse
- Mild to moderate SUI
- No severe OAB

How to Assess Outcome?

- **Cure of SUI**
 - Short term (1-2 years)
 - Long term (10 years)
- **Morbidity**
 - Short term recovery/disability
 - Post-op retention
- **Complications**
 - Reoperation for retention/obstruction
 - De novo or worsening urgency
- **Long term issues**
 - Prolapse
 - Other complications (synthetics/biomaterials)

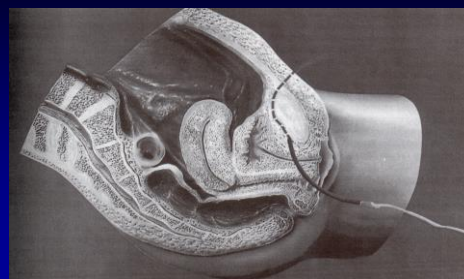
Tension-free Vaginal Tape

- Ulmsten 1996, Int. Urogynecology
- Prolene mesh tape introduced with trocars through small vaginal incision to create hammock like support for the urethra

The rising tide

- Tension free vaginal tape (TVT)
- Suprapubic arc sling (SPARC)
- Several other percutaneous procedures
- Monarc transobturator sling

Procedure



My Opinion

The TVT procedure is the best option for the index patient with stress incontinence.

- Results equal to any other operation
- Permanent material
- Lowest morbidity

What is Different?

- Mid-urethral location
- “Tension free”
- Local anesthesia/sedation
- Adjusting sling with patient awake
- Permanent material
- Percutaneous placement

Results

	Patients	Follow-up	Cure (%)	Improved (%)	Failed (%)	De-novo DI (%)
Olsson	51	36	90	6	4	-
Ulmsten	131	12	91	7	2	-
Haab	62	16	87	10	3	6
Klutke	20	12	85	10	5	-
Ulmsten	50	36	86	12	2	-
Moran	40	12	80	17	3	12

Prognostic Factors?

- Previous studies with highly selected groups
- Intrinsic sphincter deficiency may result in poorer results

Role in Failed Incontinence Procedures

- Prospective study with 1 year F/U
- 67 women
- Cured: 81%
- Improved: 6%
- Failed: 13%
- De novo DI (UDS): 7%
- No long term retention >3 months

Azam et al, J of Urol 2001

Role in Failed Incontinence Procedures

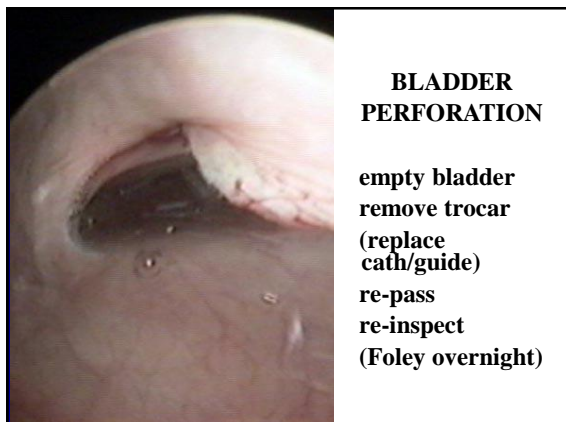
- Ulmsten et al, 2001
- Follow-up 4 years
- Cured: 82%
- Improved: 9%
- Failed: 9%

Urinary Retention

- Klutke et al, Urology 2001
- Retrospective review
- 600 patients
- 28% previous anti-incontinence surgery
- 17 clinically obstructed patients (2.8%)
- Duration: 6-228 days (Mean 64 days)

Complications

- Bladder/urethral injury: 4-12%
- Urinary infection: 10%
- Prolonged pain: 3%
- Vascular injuries
 - Hematoma: <2%
 - Epigastric, external iliac artery
- Bowel injury
- Deaths--8



Summary

- Less morbid, local, outpatient
- Possibly less voiding dysfunction
- Equivalent results, better quality data
- Durability enhanced by permanent mesh
- Risk of major injury from needles
- Unknown risk of permanent material over time

CONCLUSION

The mid urethral sling is the procedure of choice for the index patient with stress incontinence