

MANAGEMENT OF SLING COMPLICATIONS IN FEMALES

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INTRODUCTION

The traditional “**gold standard**” treatments for stress urinary incontinence (SUI) include:

BURCH COLPOSUSPENSION

AUTOLOGOUS FASCIAL SLING

INTRODUCTION

Level I evidence

- ✓ Stress Incontinence Surgical Treatment Efficacy Trial (SISTER):

Autologous fascial sling is superior to colposuspension with regard to SUI.

- ✓ TVT Trial Group:

TVT procedure equivalent to colposuspension at 5 years.

Albo ME et al: N Engl J Med 2007; 356: 2143

Ward KL et al: BJOG 2008; 115: 226.

ADVANTAGES OF NON-AUTOLOGOUS (NA) SLINGS

- WIDE POPULARITY
- HARVESTING UNNECESSARY
- REPORTED RESULTS COMPARABLE TO AUTOLOGOUS SLINGS, BUT...

NON-AUTOLOGOUS (NA) SLINGS

NO LEVEL I EVIDENCE YET...

COMPARING
AUTOLOGOUS SLINGS VERSUS
NON-AUTOLOGOUS SLINGS

NON-AUTOLOGOUS (NA) SLINGS

IDEAL NA SLING:

“Inert, resistant to infection and permanent with no risk of erosion, and become incorporated in surrounding tissue”

NON-AUTOLOGOUS (NA) SLINGS

- ✓ Ideal NA Sling should allow for vascular, fibroblast and collagen fiber ingrowth:

Knitted

Monofilament with interstices

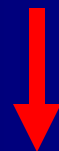
Micropore size > 10 microns

Pore size > 75 microns

**INCREASED POPULARITY OF
NA SLINGS**



**SUBSTANTIAL INCREASE IN
SURGICAL PROCEDURES**



**LARGER NUMBER OF
COMPLICATIONS**

NA SLINGS

COMPLICATIONS

■ At time of surgery:

direct injury to urinary tract	0.7% -24%
Hemorrhage	1.1% - 2.3%

■ Early

de novo urgency	6.5 – 15%
vaginal extrusion or erosion	0.7% - 13.9%
UTI	0 – 12%
overt urethral obstruction	2.8% - 10%
Retropubic hematoma	2% - 4.1%
urethral erosion	0.3%

NA SLINGS

COMPLICATIONS

■ Late:

urinary obstruction	2.5% – 24%
de novo urgency	6% - 15%
persistent incontinence	3% - 12%
urethral/bladder erosion	0.3% - 23%
pelvic organ prolapse	?
(for burch only)	19% - 26%

NA SLINGS COMPLICATIONS

Disabling complications with slings for managing female stress urinary incontinence

Raul Ordorica, Alejandro R. Rodriguez, Fernando Coste-Delvecchio, Mitchell Hoffman and Jorge Lockhart

Division of Urology, University of South Florida, Tampa, FL, USA

Accepted for publication 7 January 2008

Rodriguez AR et al SESAUA March 2009
Ordorica R et al BJU Int 2008; 102; 333-336

NA SLINGS

COMPLICATIONS

- Females n=38
- Age 64 years (range 39-87)
- Sling types
 - a) synthetic 25
 - b) allograft 4
 - c) xenograft 6
 - d) tot 3

Referred: 35 / Ours: 3

NA SLINGS

PRIMARY COMPLICATION

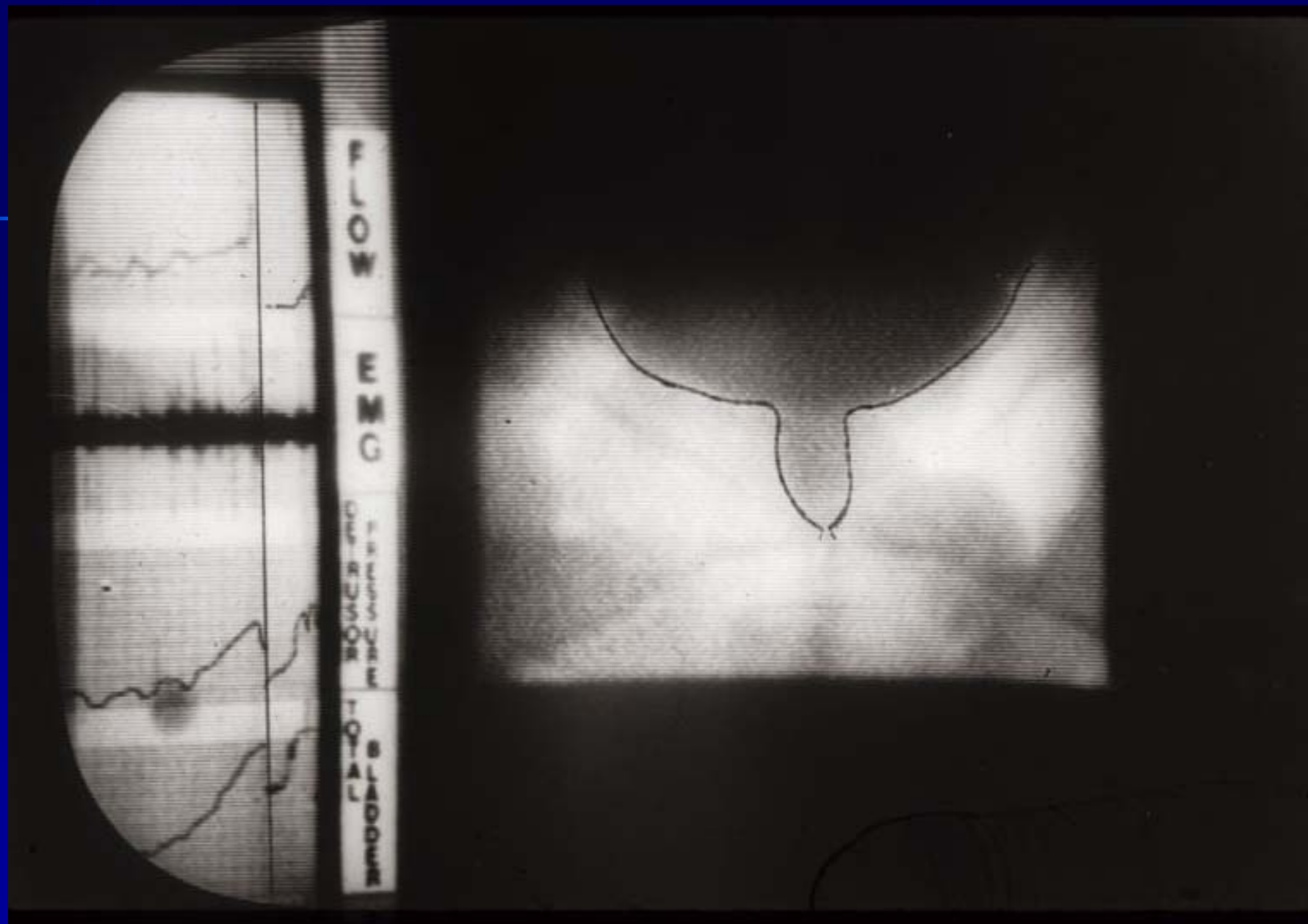
TYPE	n	(%)
OBSTRUCTION	7	(18.4)
URG,FREQ-OBST	13	(34.2)
SUI	3	(7.9)
URG,FREQ	2	(5.3)
VAG/BLAD EROSION	11/2	(34.2)
<i>Total</i>	<u>38</u>	

NA SLINGS – *OBSTRUCTION*

DIAGNOSIS

HX	retention, uti's, urg/freq, slow and interrupted stream
PE	high bladder neck, urethral indentation
CYSTO	high overcorrected bladder neck, posterior urethral wall "jump" while withdrawing the cystoscope
UDS	low, intermittent flow rate





CYSTOSCOPY OF OBSTRUCTIVE SLING



VAGINAL WALL INCISION

DISSECTION & GRASPING OF SLING

"HOOKING" THE SLING

SLING EXPOSURE FOR TRANSECTION

TRANSECTION OF SLING

NA SLINGS - OBSTRUCTION TREATMENT

SLING TAKEDOWN

+

URETHROLYSIS

(n= 20)

NA SLINGS SLING TAKEDOWN OUTCOMES

	n	(%)
Continent/Normal voiding	12	60
Continent IC	1	5
Urg/Freq (Unchanged)	4	20
Further Surgery Obstruction)	2	10
SUI	1	5
<i>Total</i>	<u>20</u>	

NA SLINGS

SLING TAKEDOWN

PERSISTENT SYMPTOMS

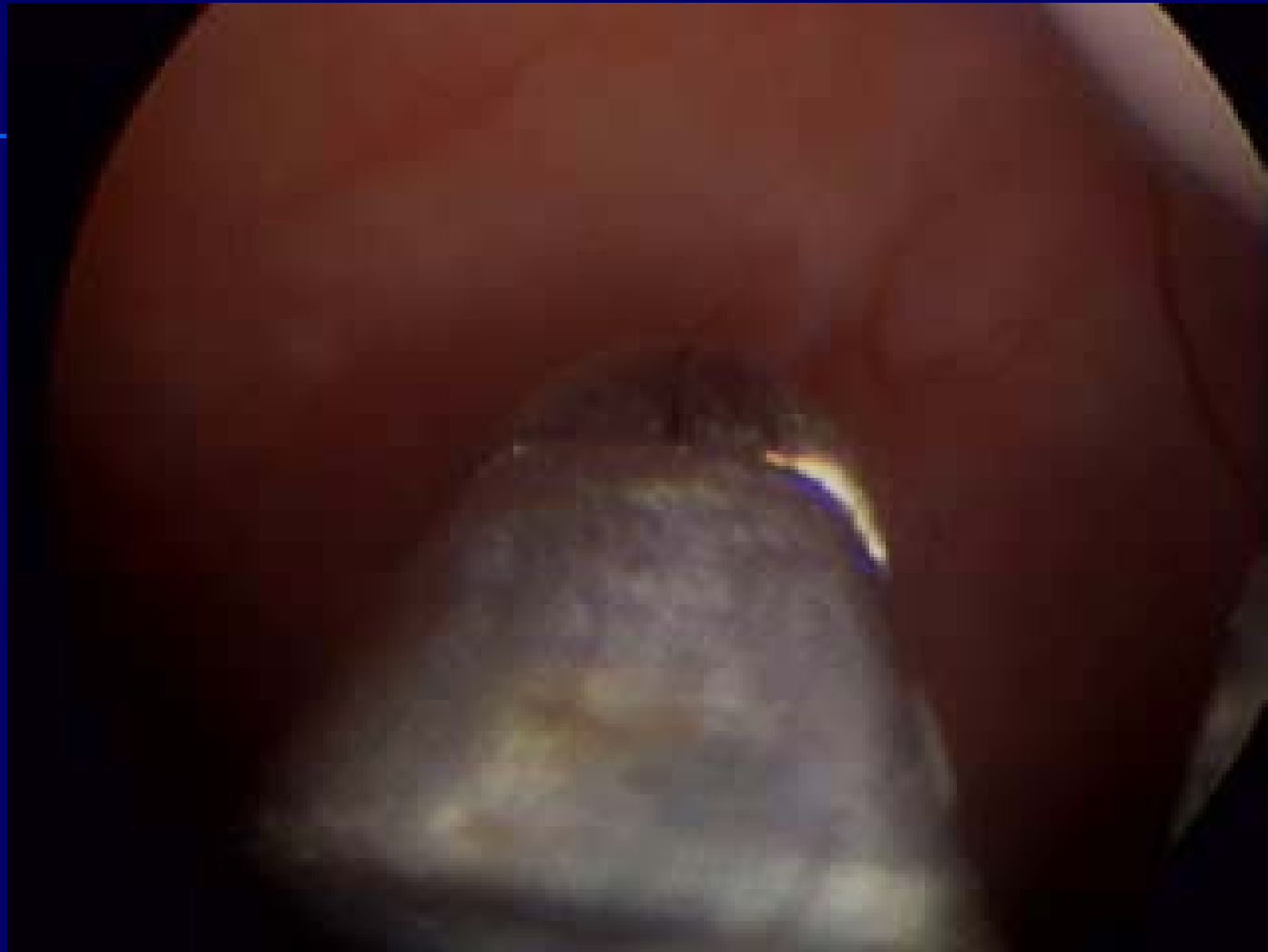
Symptom	n	Results
Urg/Freq	4	Interstim 2-Improved Drugs 2-No Improvement
SUI	1	Autologous Sling 1-Improved (IC)
Further surgery	2	Redo Urethrolysis 2-Improved

NA SLINGS NON-OBSTRUCTED TREATMENT

Symptom	n	Outcome
SUI	3	Autologous sling-Improved
Urgency/Frequency	2	Drugs Pelvic Floor Exercises ???
Eroded sling	13	Eroded mesh, sutures removal (some new sling, attempt bone anchors removal)
<i>Total</i>	<hr/> 18	

URETHRAL EROSION

VESICAL EROSION OF NA SLING



ERODED SLINGS

TREATMENT

OUTCOME	n=13 (%)	
IMPROVED	10	76
W/O NEW SLING	8	
W NEW SLING	2	
NO IMPROVEMENT	3	24
URG/FREQ	2	(Interstim [®] , Botox [®])
PUBIC OSTEITIS	1	

CONCLUSIONS

- Complications with periurethral NA slings could be devastating for the patient's quality of life.
- Patients with refractory urgency/frequency should be evaluated to rule out obstruction.
- Obstruction and erosions are the commonest problems and require surgical correction

CONCLUSIONS

The surgical correction may also require a **SPIRAL SLING**

USF Experience

Total of 30 Females

Mean Prior vaginal surgeries for SUI 3.5 (1-6)

	Pre-operative	Post-operative	
Mean daily Pad use	7 (3-12)	0.5 (0-2)	($p < 0.005$)
Stamey Score	2.6	0.3	($p < 0.005$)

Overall success rate of 87%

SPIRAL SLING VIDEO

