



Post-prostatektomi inkontinans

“Kime hangi tedavi, cerrahi tedavide güncel uygulamalar”

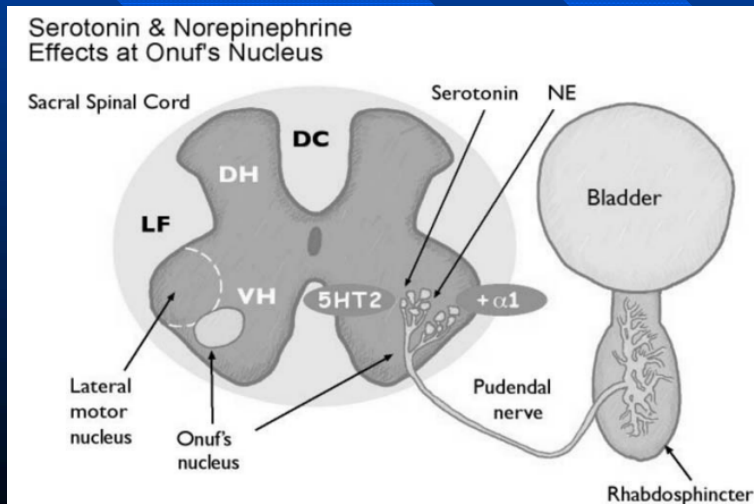
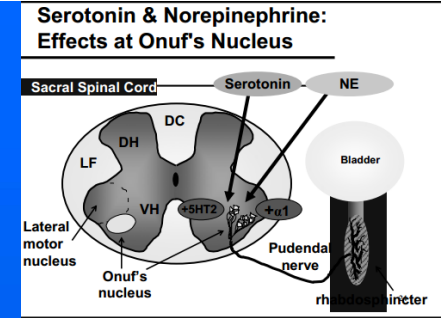
Prof. Dr. Rahmi ONUR
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Post-prostatektomi inkontinans : Sfinkter yetmezliği

- o Pelvik Taban Egzersizleri (PTE)
- o Farmakolojik tedavi
- o Enjeksiyon tedavileri
- o Erkek slingler
- o Ayarlanabilir slingler
- o Artifisyonel üriner sfinkter
- o YENİ uygulamalar

Duloksetin

- Serotonin-Norepinefrin geri alım inhibitörü
- Etkisi sfinktere, ama sfinkterde değil
- Onuf' s nükleusunda
- Onuf nukleusu üretral sfinktere olan innervasyonun başlangıç noktası



Duloksetin: Başarı

7/20 (%35) hasta kuru

Ort. Pet sayısı : 8.0 pet/gün vs 4.2 pet /gün

Hafif-orta şiddette inkontinans

European Association of Urology

Incontinence

Duloxetine for Mild to Moderate Postprostatectomy Incontinence: Preliminary Results of a Randomised, Placebo-Controlled Trial

Jean-Nicolas Cornu^{a,*}, Benoit Merlet^a, Calin Ciofu^a, Stéphane Mouly^b,
Laurence Peyrat^a, Philippe Sèbe^a, René Yiou^c, Guy Vallancien^d, Isabelle Debrix^e,
Karim Laribi^e, Olivier Cussenot^a, François Haab^a

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Jean-Nicolas Cornu^{a,*}, Benoit Merlet^a, Cédric Cléjau^a, Stéphane Mouly^b,
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Karim Laribi^a, Olivier Cussenot^a, François Haub^a

Table 4 – Emergent side-effects during the study and secondary outcomes concerning tolerance (*p* values issued from Fisher exact test)

Side-effect	Duloxetine (<i>n</i> = 16)	Placebo (<i>n</i> = 15)
Fatigue	8 (50%)	2 (13%)
Sweat	4 (25%)	3 (20%)
Insomnia	4 (25%)	1 (7%)
Loss of libido	3 (19%)	1 (7%)
Constipation	2 (13%)	1 (7%)
Nausea	2 (13%)	1 (7%)
Diarrhoea	2 (13%)	1 (7%)
Dry mouth	1 (6%)	–
Anorexia	1 (6%)	–



European Association of Urology



Editorial

Duloxetine for Male Stress Incontinence

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The authors also report the high prevalence of side-effects in these men. Fourteen of 20 men experienced side-effects, and these side-effects precluded any use of the drug in 2 men and led to a further 6 discontinuing the drug (after what period of time?). Clearly, just as in female patients, drug tolerability is an important issue with the use of this drug. The patients who continued the drug did so for a mean of 9.4 mo, and it is not clear what happened to them afterwards and why they stopped taking the drug. Certainly the authors report impressive efficacy in those able to tolerate the drug: efficacy in 15 of 18 patients and dryness in 7.

PPI Medikal tedavisinde güncel ne var?

Coadministration of low-dose serotonin/noradrenaline reuptake inhibitor (SNRI) duloxetine with α_2 -adrenoceptor blockers to treat both female and male mild-to-moderate stress urinary incontinence (SUI)

C. ALBERTI

Emerging SUI pharmacotherapy by SNRI/ α_2 -adrenoceptor blocker co-administration

Considering that the therapeutic dose of duloxetine to treat SUI (40 mg, twice a day) is frequently associated with above-mentioned side-effects, it has been shown, in SUI animal models, that the dose may be significantly reduced when such drug is co-administered with α_2 -adrenoceptor antagonists (yohimbine, idazoxan), given that the α_2 -adrenoceptor inhibition can boost the effects of duloxetine on the urethral rhabdosphincter. It follows that, together with avoiding or

Duloxetine +
yohimbine,
idazoxan

Duloksetin kime önerilebilir?

Başarıyı belirleyen faktörler var mı?

1087 kadın hasta

12 ay tedavi

Tedaviyi bırakmaya yol açan nedenler

Diğer ilaçlarla tedavi bırakma arasındaki ilişki

Yaş faktörü

VKI

Kaçırma oranı, şiddeti...

Do predictive parameters exist for therapy with duloxetine in women with stress urinary incontinence?

Nadine Schwertner-Tiepelmann • Frank Schwab •
Ralf Tunn

Do predictive parameters exist for therapy with duloxetine in women with stress urinary incontinence?

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Ralf Tunn

Parameters	Category	Odds ratio	95 % CI	<i>p</i>
Duloxetine combination	Duloxetine only	1		<0.001
	Duloxetine and anti-cholinergics	18.72	(6.51–53.84)	
	Duloxetine and other	4.32	(2.85–6.56)	
Country	Germany	1		<0.001
	United Kingdom	1.96	(1.15–3.34)	
	Ireland	2.40	(0.7–8.18)	
	Mexico	3.64	(1.99–6.67)	
	Sweden	1.90	(1.15–3.12)	
Age group	≥45 and <65	1		0.050
	≥18 and <45	0.96	(0.59–1.55)	
	≥65	0.63	(0.43–0.92)	
Number urinary incontinence episodes in last 7 days at Obs.1	>0 to <7	1		0.001
	>13	0.70	(0.47–1.04)	
	7 to 13	0.42	(0.26–0.69)	
	ND	1.86	(0.75–4.59)	
Severity of UI symptoms at Obs. 4	1 No	1		<0.001
	2 Mild	1.32	(0.82–2.13)	
	3 Moderate	3.16	(1.85–5.42)	
	4 Severe	5.39	(2.27–12.84)	
	5 Unknown	4.78 *10 ⁻⁹	(0.00 to ND)	

Sigara içme ve VKİ <20,
VKİ > 30

Azalır

Artar

Çok değişkenli analizde ise:

- 65 yaş üstü
- Ülke
- 7-13 inkontinans atağı
- Diğer ilaçlar,
özellikle anti-kolinergikler

Azalır

Azalır

Azalır

Artar

PPI & enjeksiyon tedavileri

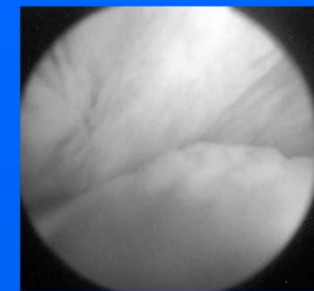
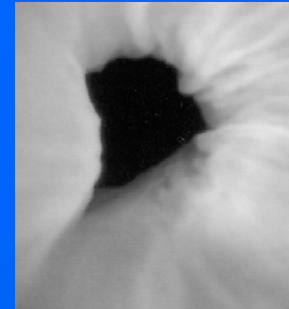


TABLE I. Results of transurethral collagen injection therapy for male postprostatectomy intrinsic sphincter deficiency

Investigators	Patients (n)	Mean Follow-up (mo)	Mean No. of Injections	Mean Cumulative Volume (mL)	Cured (%)	Significantly Improved (%)	Failed (%)
Bevan-Thomas <i>et al.</i> ¹²	257	28	4.4	36.6	52 (20)	101 (39)	104 (41)
Smith <i>et al.</i> ¹⁴	54	29	4	20.0	Not reported	19 (38)	35 (62)
Cespedes <i>et al.</i> ¹³	110	7	4.2	28.4	58 (53)	10 (9)	42 (38)
Aboseif <i>et al.</i> ¹⁵	88	10	3.5	25	42 (48)	33 (37)	13 (15)
Martins <i>et al.</i> ¹⁶	46	26	2.8	31	11 (24)	21 (46)	14 (30)
Faerber and Richardson ¹⁷	68	38	5	36	7 (10)	7 (10)	54 (80)
Griebing <i>et al.</i> ¹⁸	25	13.3	2.6	35.5	0 (0)	10 (40)	15 (60)
Cummings <i>et al.</i> ¹⁹	19	10.4	1.8	13.8	4 (21)	7 (37)	8 (42)
Elsargany and Ghoniem ²⁰	35	17.6	2	10	7 (20)	11 (31)	17 (48)

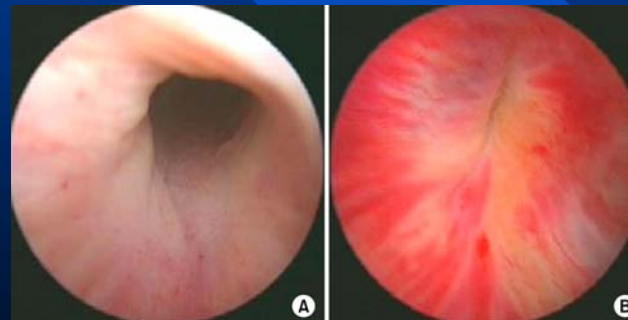
Treatment Outcomes of Transurethral Macroplastique Injection for Postprostatectomy Incontinence

Sin Woo Lee, Jung Hun Kang, Hyun Hwan Sung, U-Seok Jeong, Young-Suk Lee¹, Minki Baek, Kyu-Sung Lee

Department of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, ¹Department of Urology, Samsung Changwon Hospital, Sungkyunkwan University School of Medicine, Changwon, Korea

Ort. 9.3 ay takip

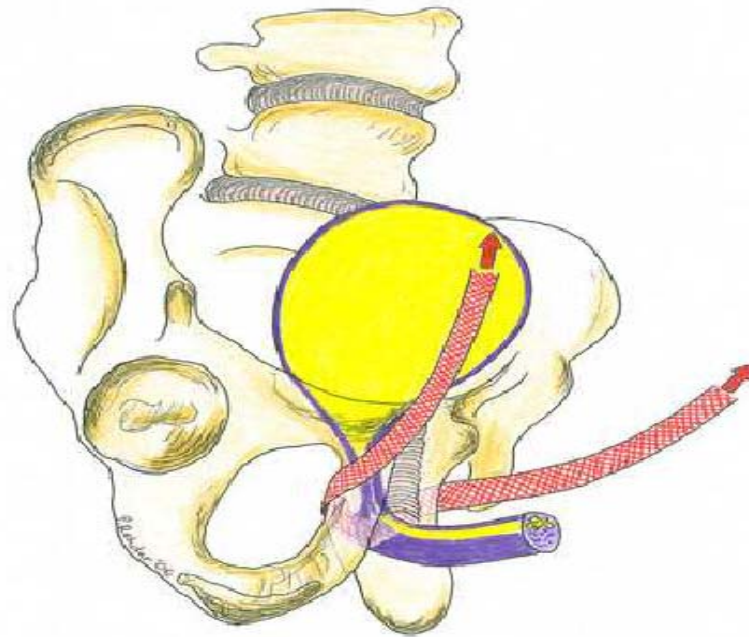
- 1. ay sonunda % 43 iyileşme
- 6. ay sonunda % 32 düzelme

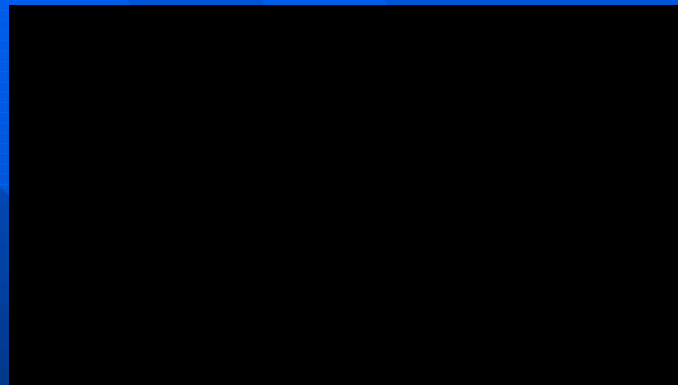
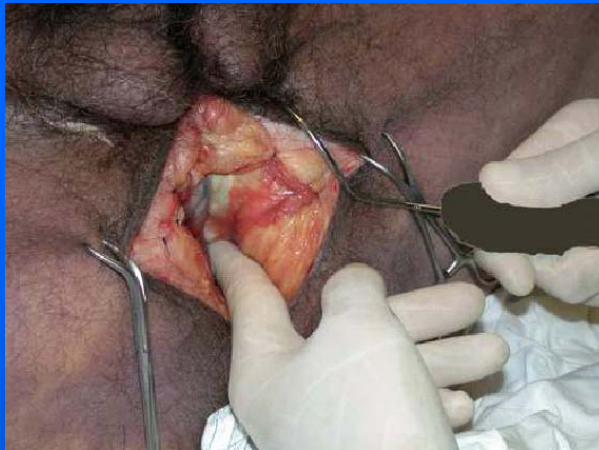


Study	Year	No. of patients	Material	Mean follow-up (mo)	Mean injection no.	Mean injection volume (mL)	Definition of improvement	Treatment outcomes		
								% Dryness	% Improvement	% AUR
Cummings et al. [17]	1996	19	Col	10.4	2.1	17.4	> 75% symptom reduction	21.1	36.8	10.5
Klutke et al. [18]	1996	20	Col	8.5	1.0	14.5	≥ 1 reduction in SUI Grade	25.0	45.0	5.0
Martins et al. [19]	1997	46	Col	26	2.8	31.0	> 75% symptom reduction or ≤ 2 PPD	23.9	45.7	4.3
Colombo et al. [20]	1997	6	Macro	15.5	1.5	7.5	Subjective symptom improvement	83.3	16.7	16.7
Griebeling et al. [21]	1997	25	Col	13	2.6	27.5	> 50% PPD reduction	8.0	32.0	16.0
Faerber and Richardson [22]	1997	68	Col	38	5.0	36.0	> 50% PPD reduction	10.3	76.5	11.8
Elsergany and Ghoniem [12]	1998	35	Col	17.6	1.9	8.5	≥ 1 reduction in SUI Grade	20.0	31.4	2.9
Smith et al. [23]	1998	62	Col	29	4.0	20.0	≤ 1 PPD	8.1	30.6	4.8
Tiguert et al. [24]	1999	21	Col	24.5	2.9	18.4	≥ 1 reduction in SUI Grade	4.8	57.1	0
Kylmala et al. [16]	2003	50	Macro	7.3	3.0	7.1	Improvement in 1 hour pad test and subjective symptoms	60.0	24.0	0
Westney et al. [2]	2005	322	Col	40	4.4	35.0	> 50% PPD reduction	17.1	27.0	3.4
Schneider et al. [25]	2005	44	NR	32	1.4	5.2	Symptom improvement	43.2	40.9	13.6
Imamoglu et al. [26]	2005	23	Macro	48	1.2	11.9	≤ 1 PPD	47.8	26.1	4.3
Onur and Singla [27]	2006	34	Col	15	2.1	8.8	> 50% PPD reduction or ≤ 2 PPD	14.7	14.7	2.9
Present study		30	Macro	9.3	1.0	5.3	≤ 1 PPD and subjective symptom improvement	10.0	33.3	16.7

Male TOT-

- ADVANCE, I-STOP TOT, ARGUS TOT



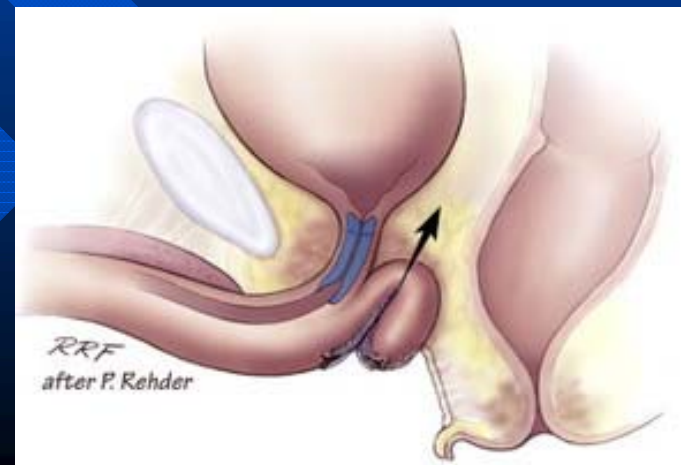
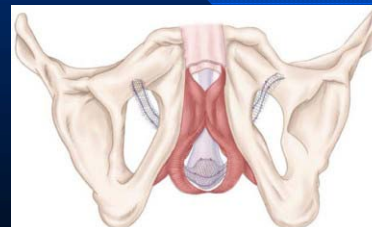


Editorial Comment on: Transobturator Sling Suspension for Male Urinary Incontinence Including Post-Radical Prostatectomy
 Rahmi Onur
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 rahmionur@yahoo.com

The authors report on a novel technique to treat male incontinence. This study is the first in vivo application of a transobturator tape (TOT) procedure after a cadaveric application and shows its hammock-like effect to cure or improve incontinence in men [1]. Placement of TOT in women has been widely used [2] and the general acceptance and success rate of this procedure now seems to be pushing use of this technique in the management of male incontinence. However, it was reported that continence after radical prostatectomy is highly dependent on sphincteric efficiency [3], whereas continence in women is lost in sphincteric insufficiency, urethral hypermobility, or pelvic organ prolapse [4]. Thus, the high success rate of the TOT procedure observed in women comes from restoring one or more of these continence mechan-

isms rather than correcting primarily the sphincteric insufficiency.

Considering other anti-incontinence techniques, an artificial urinary sphincter circumferentially occludes the urethra and exerts continuous pressure, whereas bulbourethral sling, adjustable male sling, and bone-anchored male sling techniques all aim to apply enough pressure with fixation of the material to some point. In most, the mesh used was fixed to a surface hard enough (ie, bone) or tied on itself (bulbourethral sling) [5]. However, with the use of transobturator sling suspension, neither end of the tape was anchored to any place. The answer to the question of whether the technique described in the present study provides enough tension may not be reassuring because this is a non-encircling technique without fixation and a circumferential occlusion as in artificial urinary sphincter is lacking. However, the efficacy of the technique would still be satisfactory if it had a high long-term success rate. The short-term evaluation in the present study revealed 40% cure and 30% improved rates at only the sixth week [1]. Thus, although this technique is totally different and brings new insights to the



Ayarlanabilir slingler

■ ATOMS

– transobturator – ayarlanabilir



Remeex sling

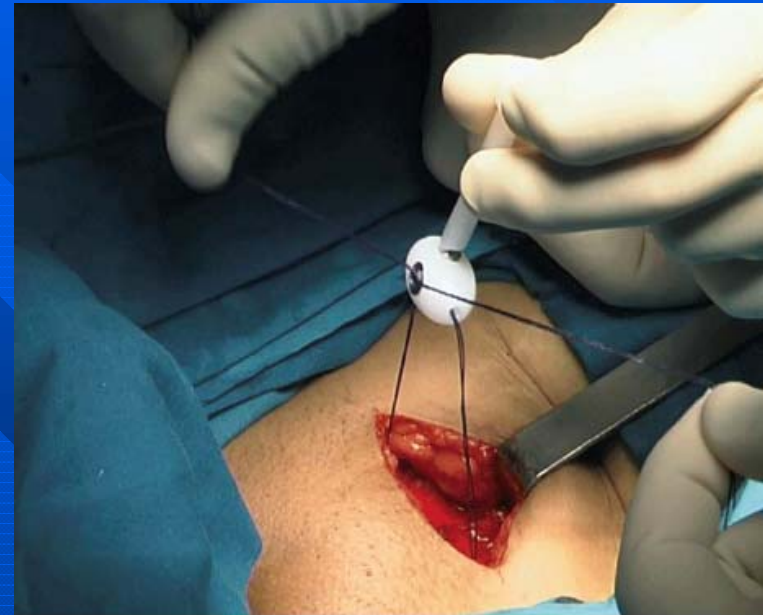
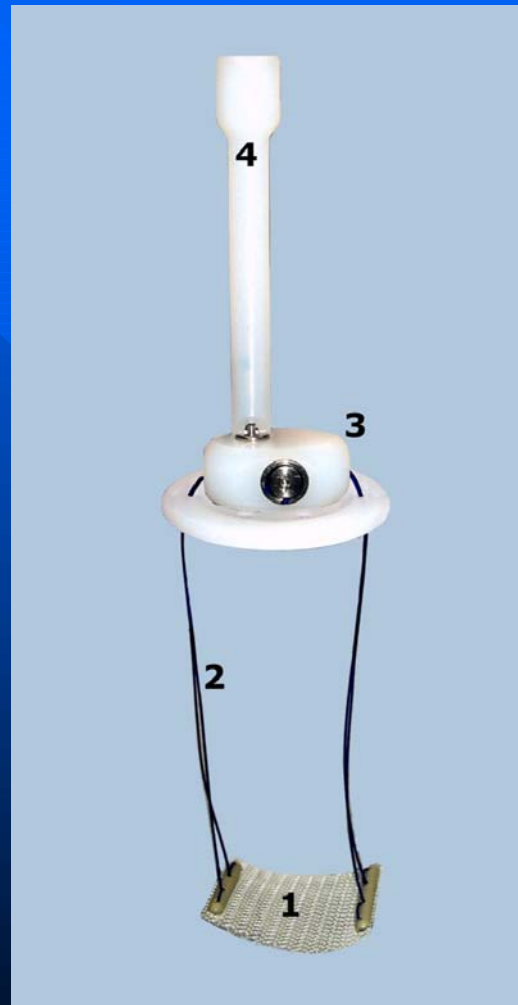
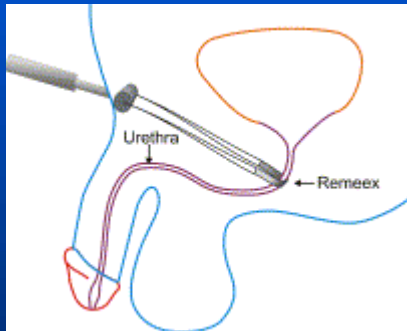
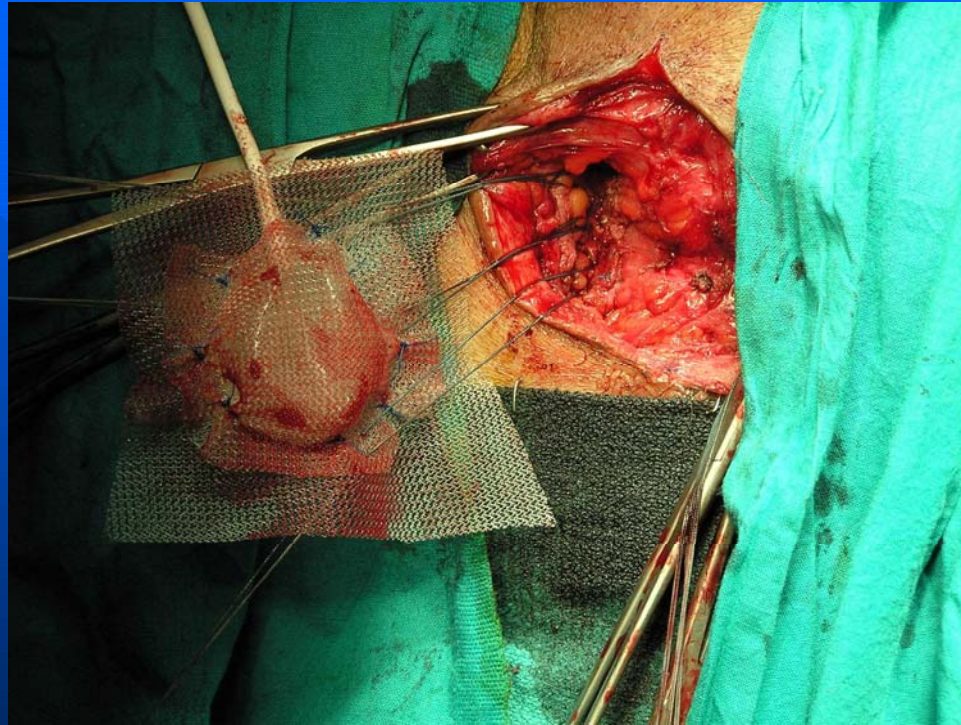


FIGURA 4. Enhebrado de los hilos en el sistema bari-tensor de la prótesis.

Remeex: ayarlanabilir sling



Home-made ayarlanabilir erkek slingler



- Doku genişletici



Sonuçlar

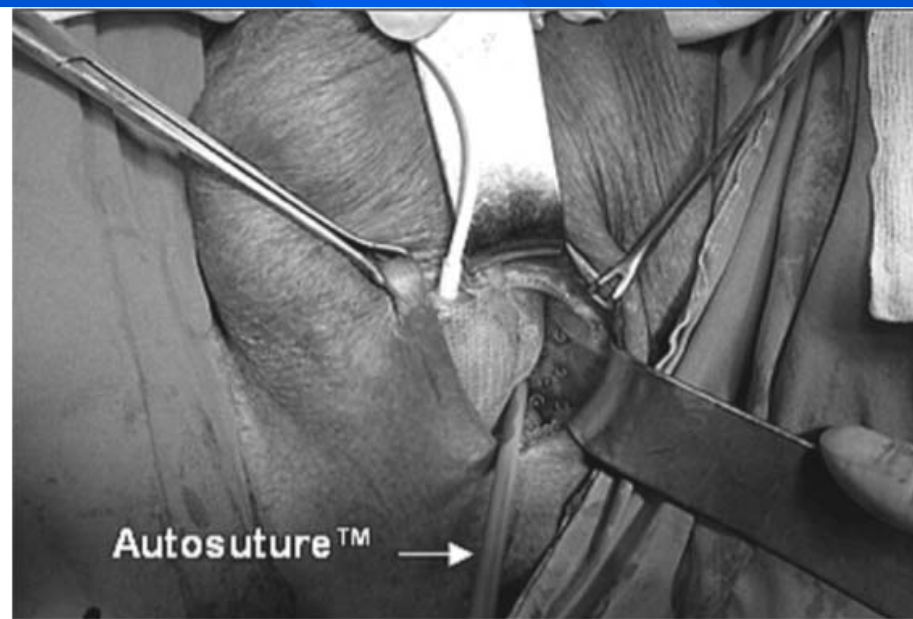
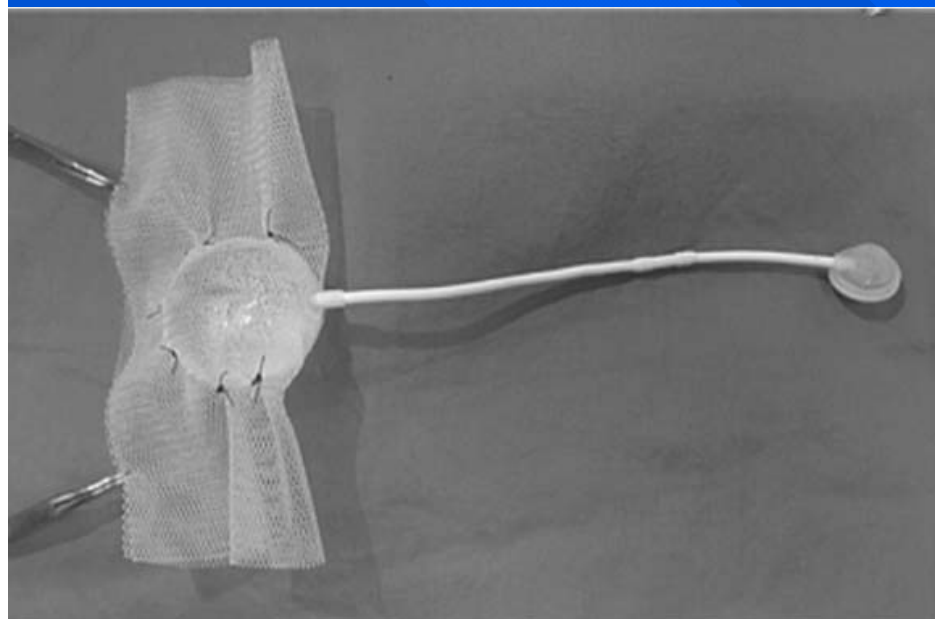
- 58 hasta,takip: 52 mo
- % 58 : kuru
- > 70% kuru ya da iyileşme
- Başarı zamanla azalır



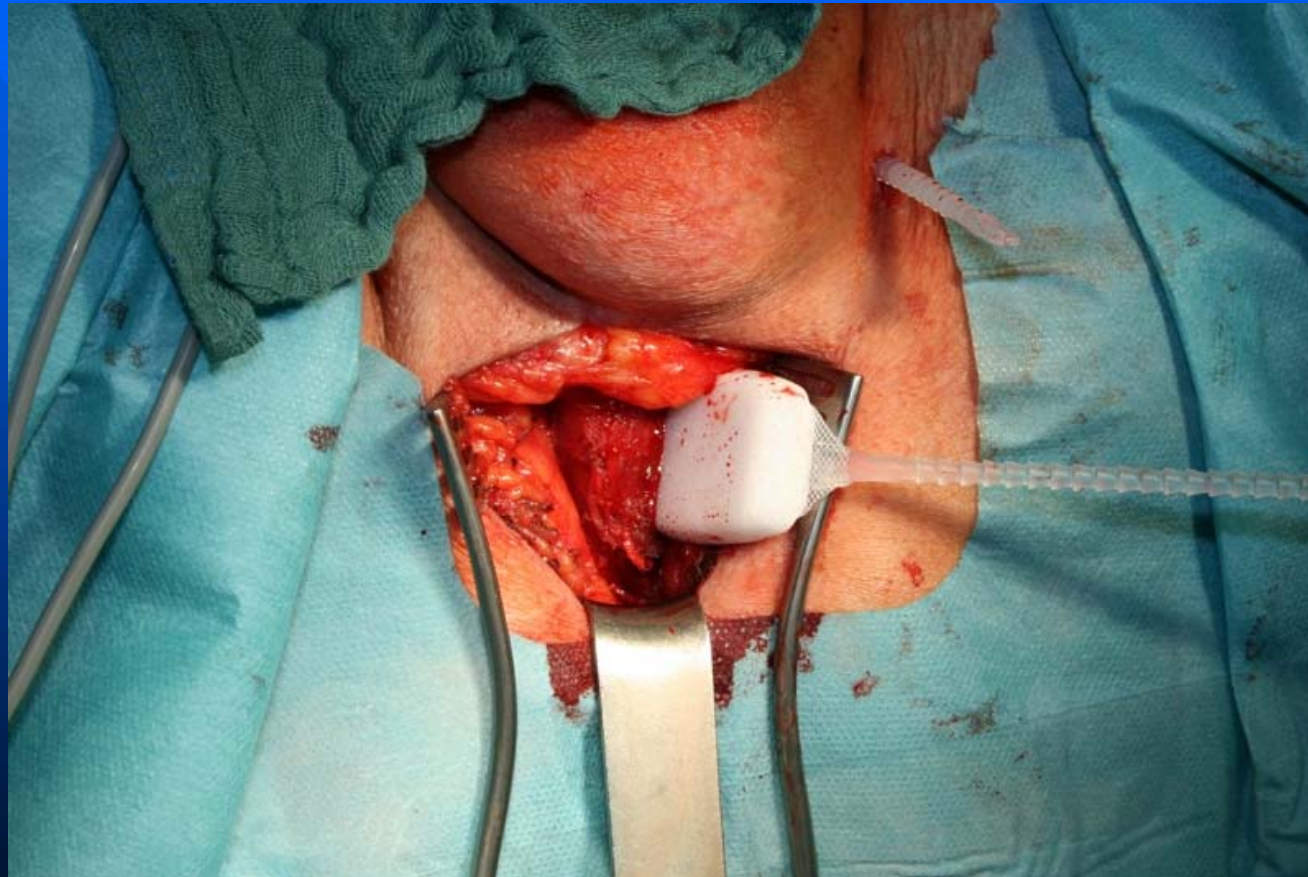


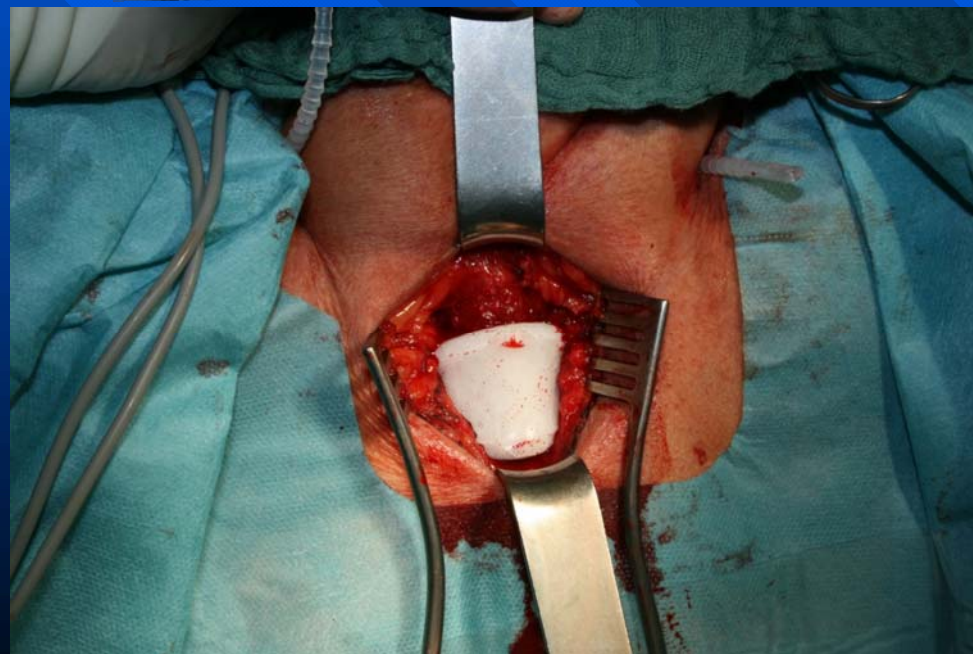
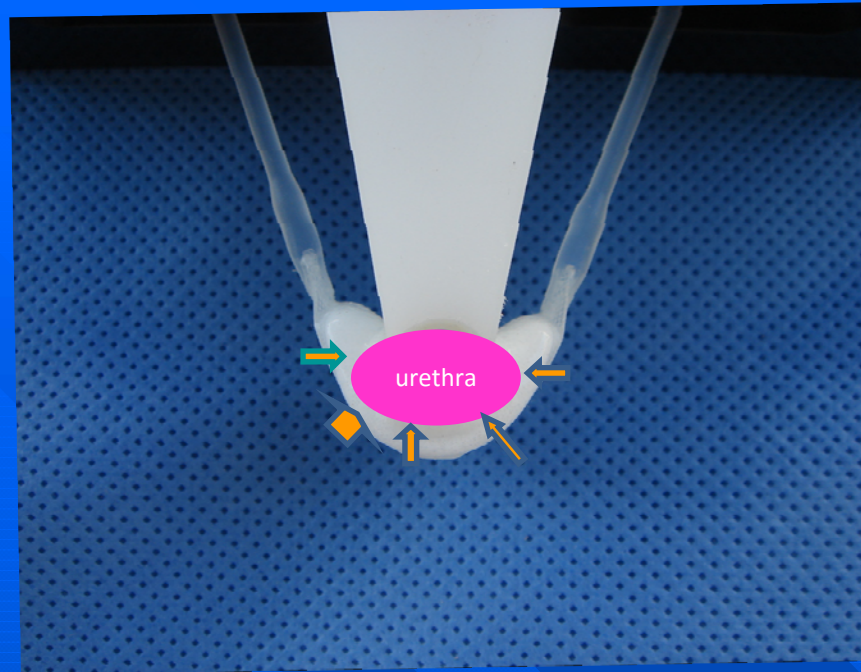
Adjustable perineal male sling using tissue expander as an effective treatment of post-prostatectomy urinary incontinence

Melih Balci ¹, Altug Tuncel ¹, Ovunc Bilgin ¹, Yilmaz Aslan ¹, Ali Atan ¹



ARGUS- retropubik veya transobturator yolla

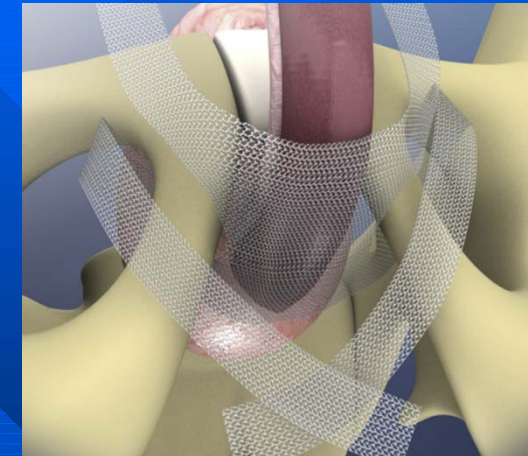
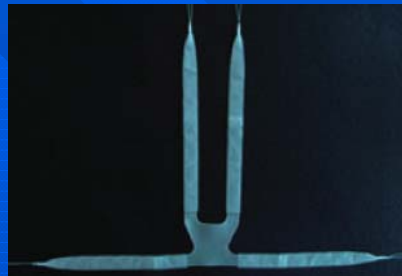
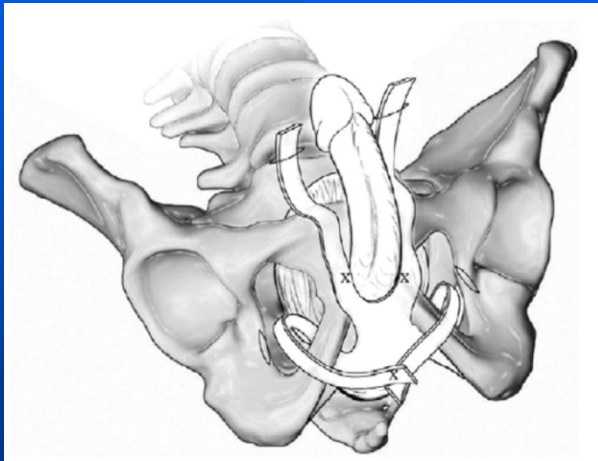




The Virtue Sling—A New Quadratic Sling for Postprostatectomy Incontinence—Results of a Multinational Clinical Trial

Craig V. Comiter, Eugene Y. Rhee, Le-Mai Tu, Sender Herschorn, and Victor W. Nitti

Quadratik sling proksimal ve retropubik kompresyon

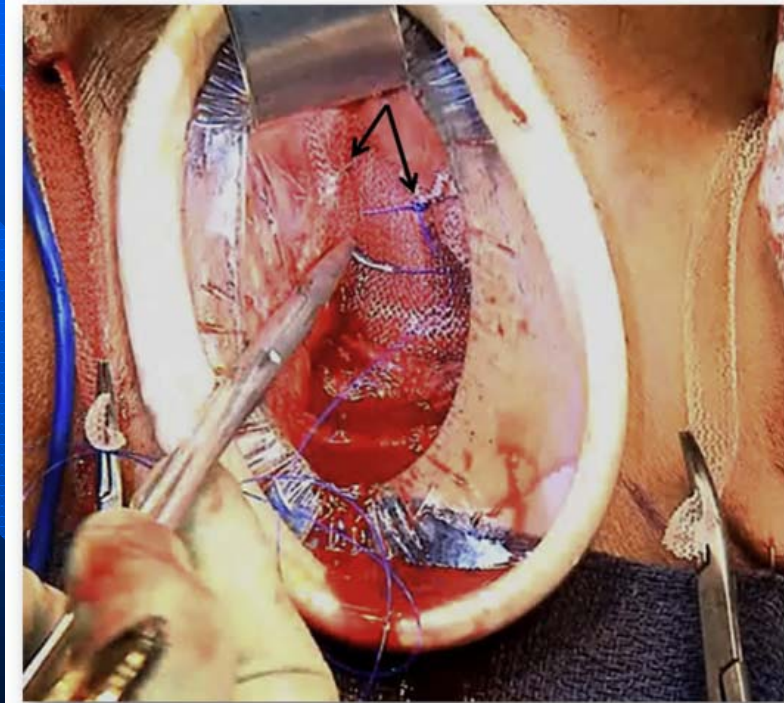
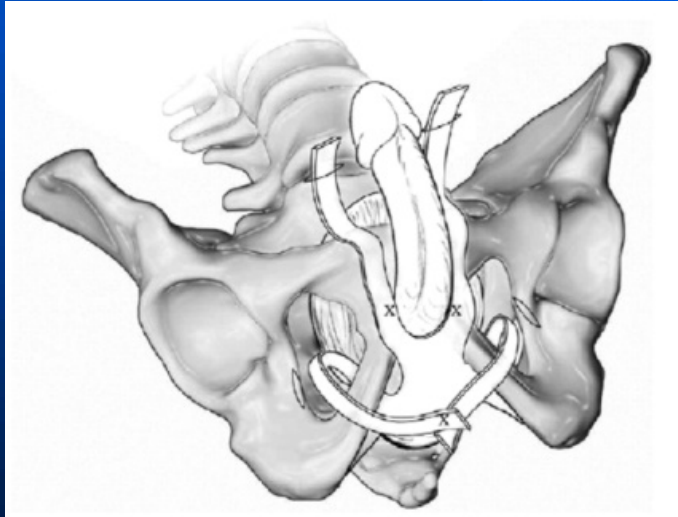


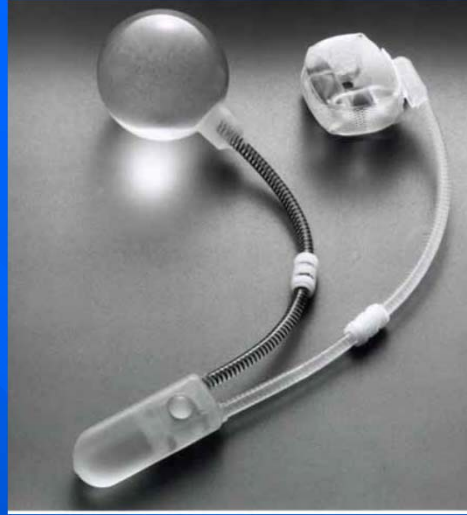
Urology. 2014 Aug;84(2):433-8. doi: 10.1016/j.urology.2014.02.062. Epub 2014 Jun 25.

The virtue sling--a new quadratic sling for postprostatectomy incontinence--results of a multinational clinical trial.

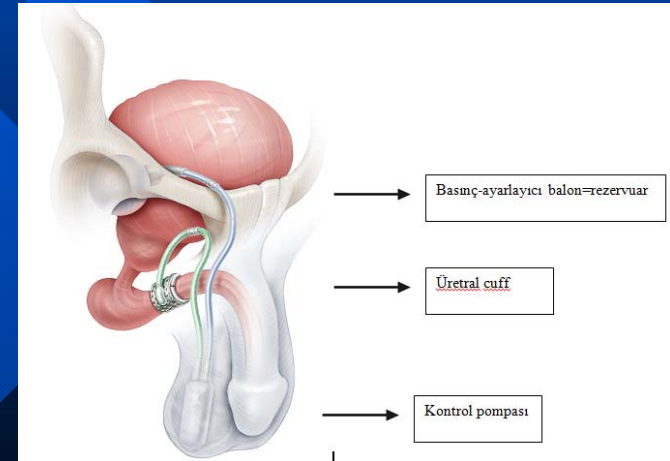
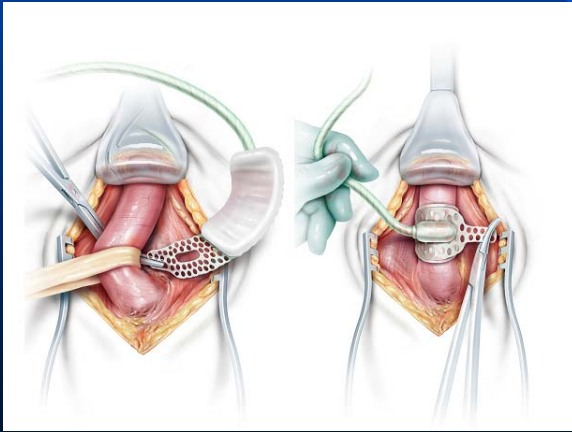
Comiter CV¹, Rhee EY², Tu LM³, Herschorn S⁴, Nitti VW⁵.

Objektif başarı: Ped sayısı % 88 azalmış





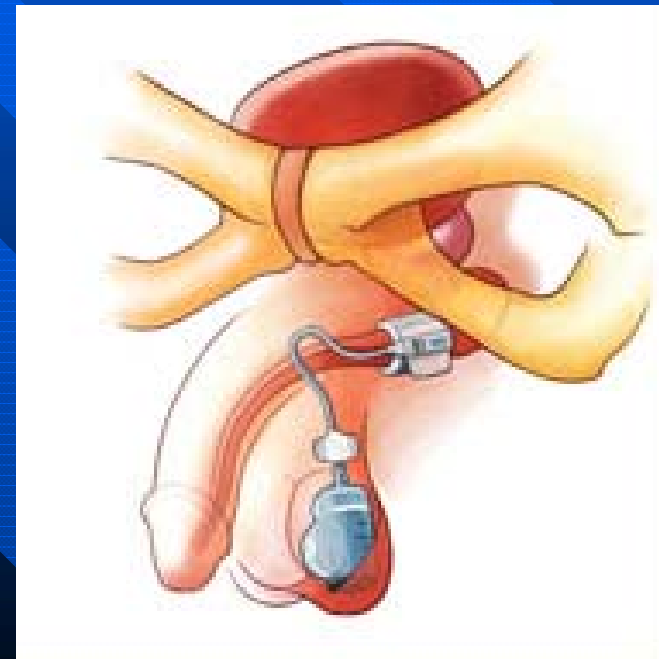
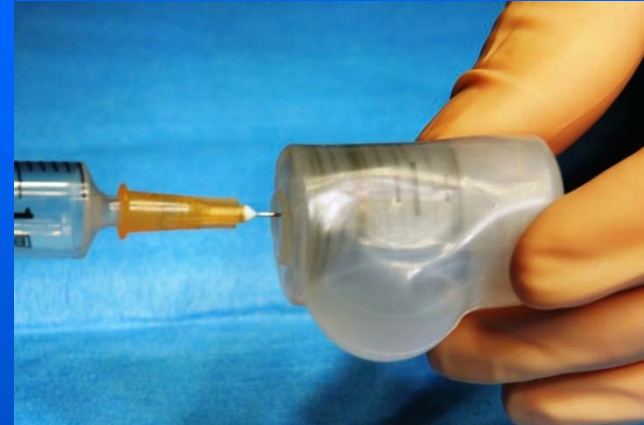
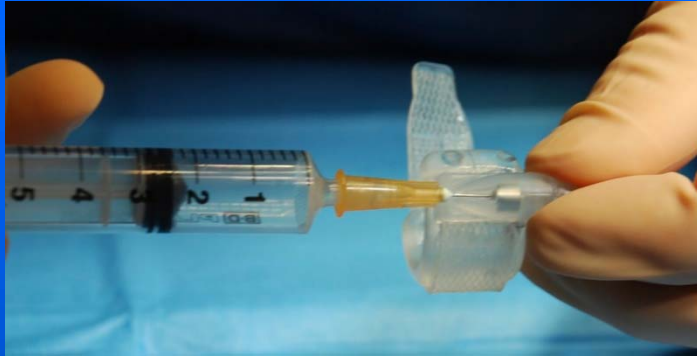
...AÜS



- **New sphincters ZSI 375 (Zephyr), Flow-Secure,**

- Tek parçalı sfinkterler
- Rezarvuar ve pompa aynı ünite



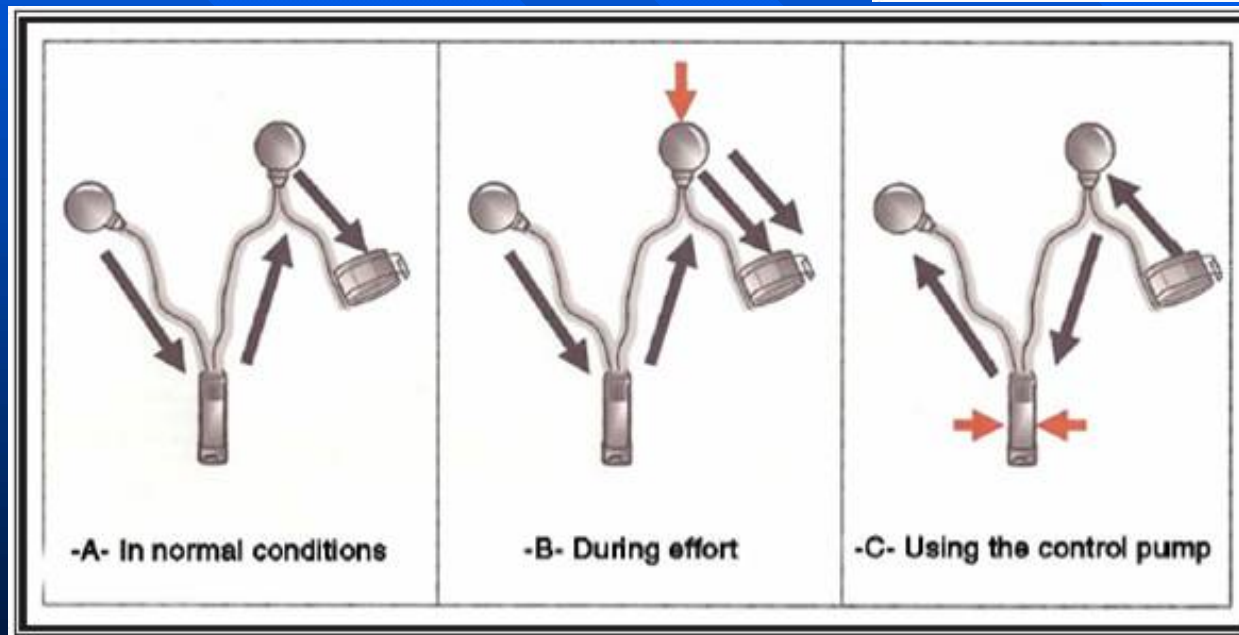
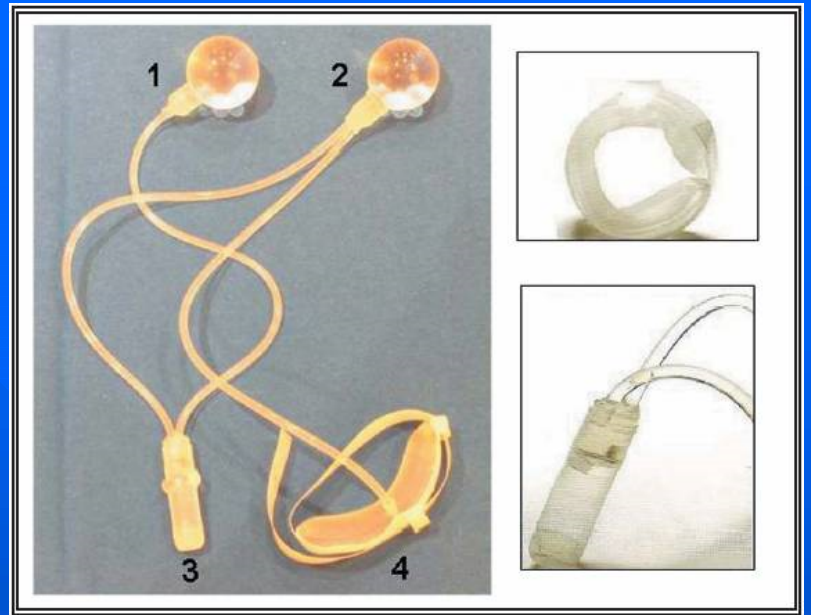


- ZSI 375 (Zephyr)



- Staerman et al., 36 hasta
- Post-op 3 ve 6. mo: % 78 and % 73 (0-1 ped/gün)

- Flow-Secure



•Uzaktan kumandalı

- pompa yok
- “Wireless”



Sonuçlar

- Ort. Başarı
 - AUS %83
 - Advance% 75
 - Argus sling %71
- Başarı tanımı
 - 0-1 ped/gün
- Slinglerde başarı tanımı genellikle %50'den fazla iyileşme



Adjustable perineal male sling using tissue expander as an effective treatment of post-prostatectomy urinary incontinence

Melih Balci ¹, Altug Tuncel ¹, Ovunc Bilgin ¹, Yilmaz Aslan ¹, Ali Atan ¹

- 40.1 ± 23.2 (6-74) ay takip
- Enj. sıvı hacmi: 11.6 ± 5.7 (5-25) mL.
- Takip:
 - 16 /21 hasta (%76.2) kuru
 - 11 hasta, 0 ped;
 - 3 hasta (%14) minimal
 - 2 erkek (%9.8) orta şiddette inkont.

Ayarlanabilir slingler

Table 1 Adjustable sling success rates.

Reference	Year	Material	Trial	N	Lost to follow-up, n	Mean/median follow up (months)	Cure definition	Improvement definition	Cure rate, n/N (%)	Improvement rate, n/N (%)	Success rate, n/N (%)
Sousa-Escandón et al. [6]	2007	Remeex	Pro	51	0	32	0–1 PPD	>50% reduction in PPD	33/51 (65)	10/51 (20)	43/51 (84)
Romano et al. [7]	2009	Argus	Pro	48	1	45	0 PPD	1 PPD	31/47 (66)	6/47 (13)	37/47 (79)
Dalpiaz et al. [8]	2011	Argus	Retro	29	0	35	0–1 PPD	2 PPD or 50% decrease	5/29 (17)	–	8/29 (28)*
Bochove-Overgaauw and Schrier [9]	2011	Argus	Retro	100	5	27	0–1 PPD	1–2 PPD and >50% reduction	51/95 (54)	17/95 (18)	68/95 (72)
Hübner et al. [10]	2011	Argus	Retro	101	0	25	0–1 g	–	80/101 (79)	–	80/101 (79)
Seweryn et al. [†] [11]	2012	ATOMS	Pro	38	0	17	0–1 PPD, <15 mL/24 h	>50% reduction in PPD, <100 mL/24 h	23/38 (60)	9/38 (24)	32/38 (84)
Hoda et al.* [12]	2013	ATOMS	Pro MC	99	0	18	0 PPD <10 mL/24 h	>50% reduction in PPD, 1–2 PPD, 10–40 mL/24 h	63/99 (63)	29/99 (29)	91/99 (91)

n, number of patients; Pro, prospective; Retro, retrospective; MC, multicentre; –, not specified. *Percentage of satisfied patients, no objective success rates were provided; [†]Possible data overlap.

Slinglerle Başarı

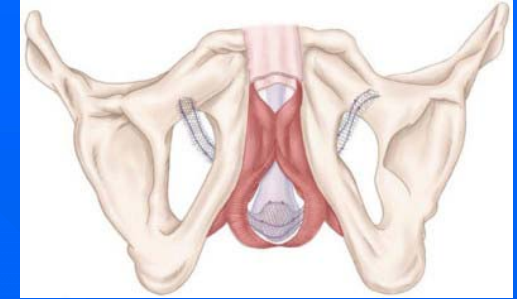


Table 4 RTS success rates.

Reference	Year	Material	Trial	N	Lost to follow-up, n	Mean/median follow up (months)	Cure definition	Improvement definition	Cure rate, n/N (%)	Improvement rate, n/N (%)	Success rate, n/N (%)
(I-STOP) TOMS											
Crites et al. [13]	2011	TOMS	Retro comp	23	0	18	—	>50% improvement, <4 PPD	—	16/23 (70)	16/23 (70)
Grise et al. [14]	2012	i-STOP TOMS	Pro	103	34	12	0–1 PPD	improvement in pad use	55/69 (80)	5/69 (7)	60/69 (87)
Yiou et al. [15]	2013	TOMS	Pro	40	0	12	0–1 PPD	1–2 PPD and >50% reduction	22/40 (55)	11/40 (28)	33/40 (83)
Advance											
Rehder et al. [16]*	2010	Advance	Pro	118	0	12	0–1 PPD	1–2 PPD and 50% reduction pad use	87/118 (74)	20/118 (17)	07/118 (91)
Bauer et al. [17]*	2010	Advance	Pro	137	11	27	0–1 PPD	1–2 PPD and 50% reduction pad use	65/126 (52)	30/126 (24)	95/126 (75)
Cornel et al. [18]	2010	Advance	Pro	36	1	12	0 PPD and <2 g urine loss	50% reduction pad use	3/35 (9)	15/35 (43)	18/35 (51)
Cornu et al. [19]*	2011	Advance	Pro	136	0	21	0 PPD	50% reduction pad use	84/136 (62)	22/136 (16)	106/136 (78)
Zuckerman et al. [20]	2011	Advance	Retro	27	0	16	0–1 PPD	50% reduction in pad use or patient satisfaction	13/27 (48)	6/27 (22)	19/27 (70)
Suskind et al. [21]	2011	Advance	Retro	42	6	18	PGI-I very much better	PGI-I much better	9/36 (25)	18/36 (50)	27/36 (75)
Berger et al. [22]	2011	Advance	Retro	26	0	22	0 PPD	1–2 PPD	16/26 (62)	7/26 (27)	23/26 (88)
Rehder et al. [28]*	2012	Advance	Pro MC	156	0	39	0–1 PPD	1–2 PPD and 50% reduction pad use	84/156 (54)	36/156 (23)	120/156 (77)
Li et al. [23]	2012	Advance	Retro	66	10	24	0 PPD	1–2 PPD	22/56 (39)	13/56 (23)	35/56 (63)
Torrey et al. [24]	2013	Advance	Retro	37	0	17	0 PPD	Decrease in number of pads	19/37 (51)	10/37 (27)	29/37 (78)
Siegler et al. [25]	2013	Advance	Retro	69	0	32	0–1 PPD	>50% reduction in pad use	15/69 (22)	20/69 (29)	35/69 (51)
Collado et al. [26]	2013	Advance, XP	Pro	61	0	26	0 PPD	>50% reduction in pad weight	47/61 (77)	—	47/61 (77)
Kowalik et al. [27]	2013	Advance	Retro	31	1	37	0–1 PPD	1–2 PPD and 50% reduction pad use	18/30 (60)	4/30 (13)	22/30 (73)

*Possible patient overlap; Pro, prospective; Retro, retrospective; comp, comparative trial; MC, multicentre; n, number of patients; —, not specified; PGI-I, Patient Global Impression of Improvement.

PPİ: Tedavide ipuçları

“Radyoterapili”

- Slinglerde dezavantajlar
 - Erkeklerde TOT- meş radyoterapili hastalarda önerilmemekte
- AÜS: revizyon, atrofi, enfeksiyon
 - radyoterapi ile % 41, radyoterapi olmayan olgularda % 11

PPİ: Tedavide ipuçları-2

“Darlık”

- Üretral-mesane boynu
 - Sling sonrası başarı düşük
 - AÜS ile aynı

PPI: Tedavide ipuçları-3

“Önceki Başarısız cerrahi”

- Sling sonrası AÜS başarısı aynı.
 - AÜS’de başarı etkilenmemekte
 - Başarısız AÜS ise sling için olumsuz faktör

•-*Curr Opin Urol 2010; 20: 302–8

•-!Prog Urol 2012; 22: 650–6

PPI: Tedavide ipuçları-4

“Kaçırma şiddeti”

- Şiddetli kaçırma: $AÜS > \text{Ayarlanabilir slingler}$
- Slingler - şiddetli inkontinans ?
- $<200 \text{ g /24-st ped test.}$

İdeal Sling hastası

- Radyoterapi almamış
- Daha önce cerrahi geçirmemiş (AÜS, TOT, ARGUS)
- Hafif-orta şiddetli kaçırma (< 200 gr/gün
- Darlık olmayan
- Üretral repozisyon testi olumlu olan

AÜS

- Altın-bronz standart
- Şiddetli inkontinanstaki hala en başarılı yöntem
- Önceki radyoterapi
- Önceki cerrahi

İdeal sonuç

- Herkese sistoskopi!!
- Herkese dolum testi!!
- Herkese ped testi!
- Erkek sling uygulanacaksa üretral repozisyon testi!

Ben ne yapıyorum?

- 6-12 aydan önce ameliyat yok! 1 yıl beklerim.
- Post-op erken dönem PTE: Erken kontinans
- Kaçırmanın şiddeti en iyi prognostik faktör
- Radyoterapi : Negatif prediktör
- Tüm inkontinan hastalarda sistoskopi
- Male TOT: hafif-orta şiddetteki kaçırmada
- Ayarlanabilir slingler: Orta-şiddetli, deneyim gerektirir.
- Medikal tedavi: hafif inkontinans, erken dönem, cerrahi istemeyen
- Şiddetli inkontinansta: AÜS

Tedavi seçimi

- PTE
- Biofeed-back
- Duloxetine
- Kollajen inj.
- Sling

Kollajen enjeksiyonu ??

- Bulbo-urethral sling
- Perineal sling
- TOT sling
- Pro-Act
- AUS

- Ayarlanabilir slingler
- AUS

Hafif; 1-2 ped/gün

Orta: 2-5 ped/gün

Şiddetli; > 5 ped/gün

İnkontinansın şiddeti