

# Center for Reconstructive Urethral Surgery



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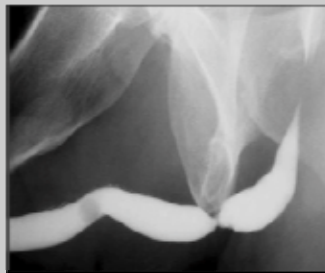
**Website: [www.urethralcenter.it](http://www.urethralcenter.it)**

# **Management of patient after failure of urethroplasty**

**Patient showing failure after urethroplasty  
require to be again fully investigated.**

**Recurrent stricture should be considered  
“a new disease” inside “a new urethra”.**

- 1. Retrograde urethrography**
- 2. Voiding cystourethrography**
- 3. Urethral sonography**
- 4. Urethroscopy**



# **How to treat patient after urethroplasty failure?**

**Re-stricture features**

**Surgeon experience and background**

**Literature suggestions**

**Psychological compliance of the patient**

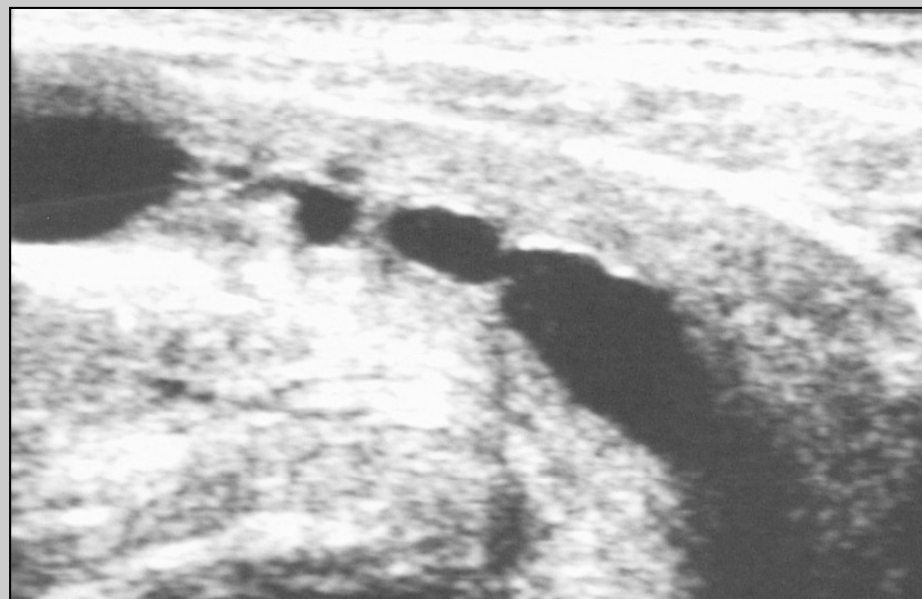
# Re-stricture features

**In our experience, the stricture recurrence showed two different features:**

- 1. Fibrous tissue involving the entire reconstructed area**
- 2. Short (< 1cm) fibrous ring at the anastomotic site**

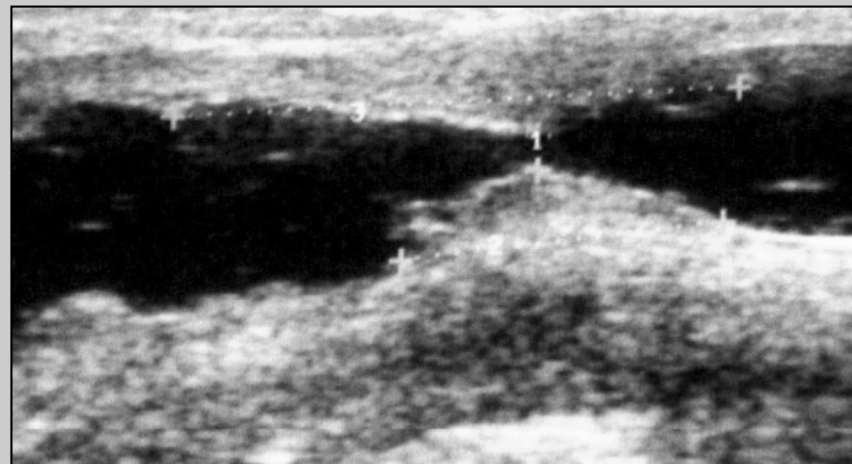
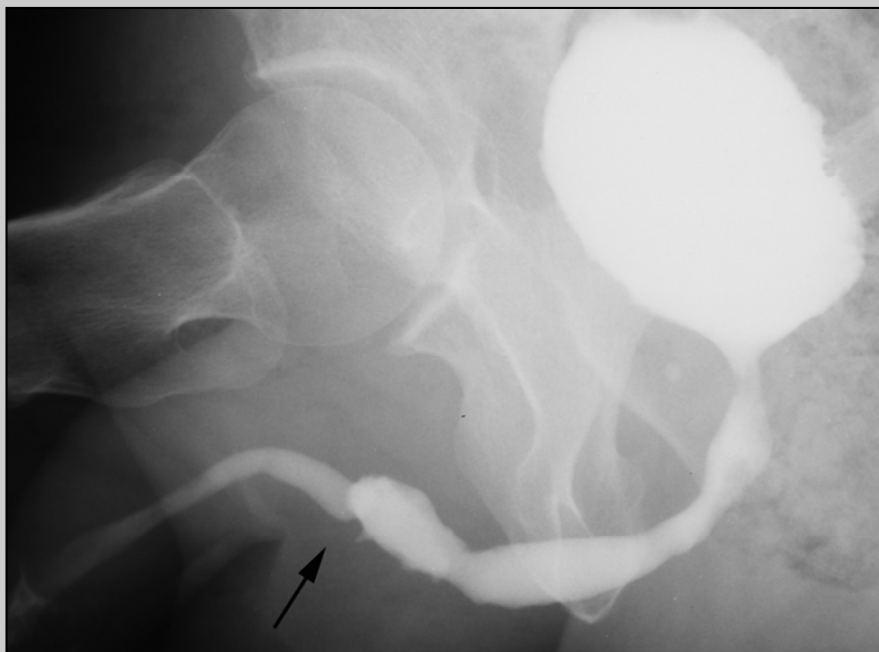
**J Urol 2006, 176: 614-619**

# Stricture recurrence involving the entire grafted area



J Urol 2006, 176: 614-619

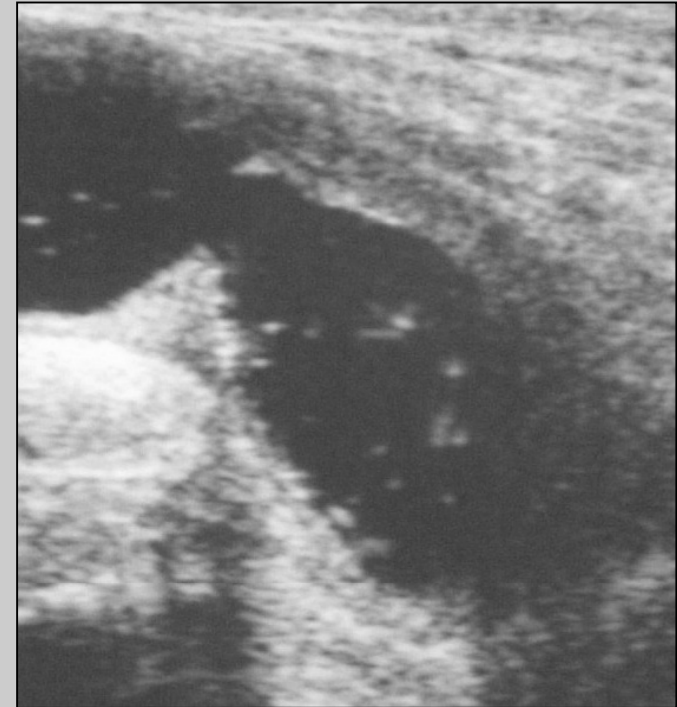
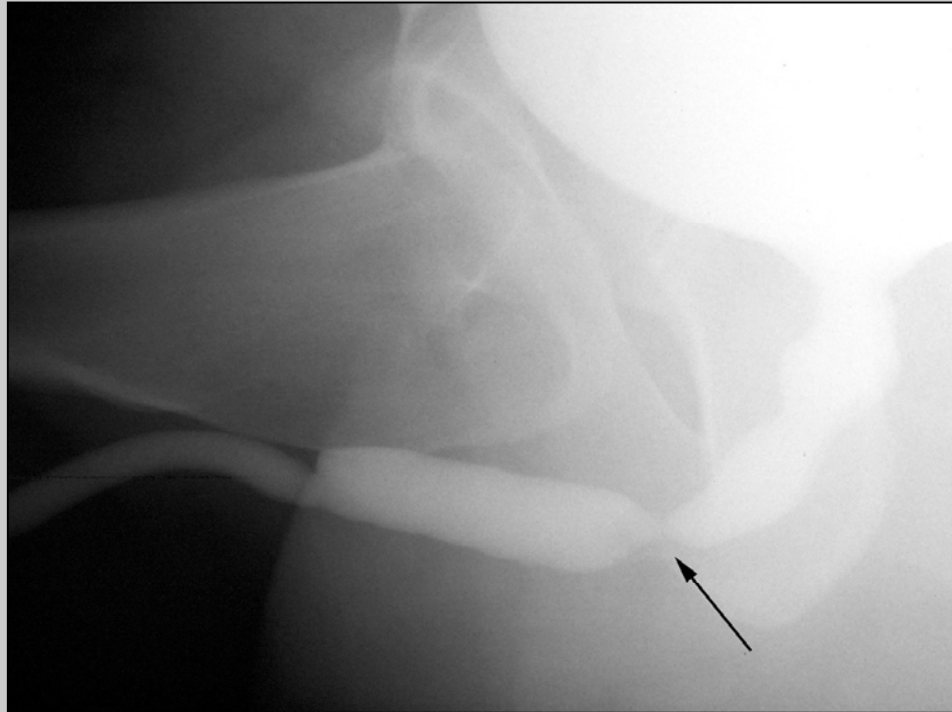
# Distal anastomotic ring



**J Urol 2006, 176: 614-619**

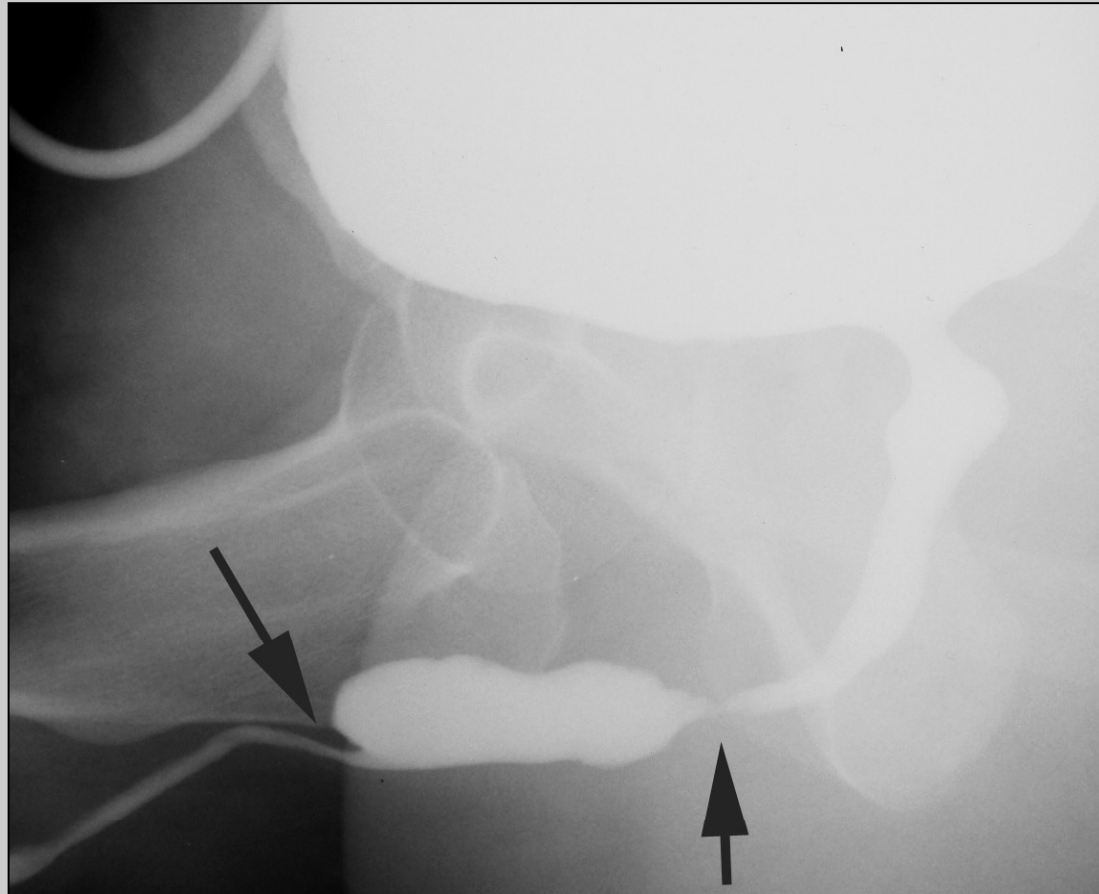


# Proximal anastomotic ring

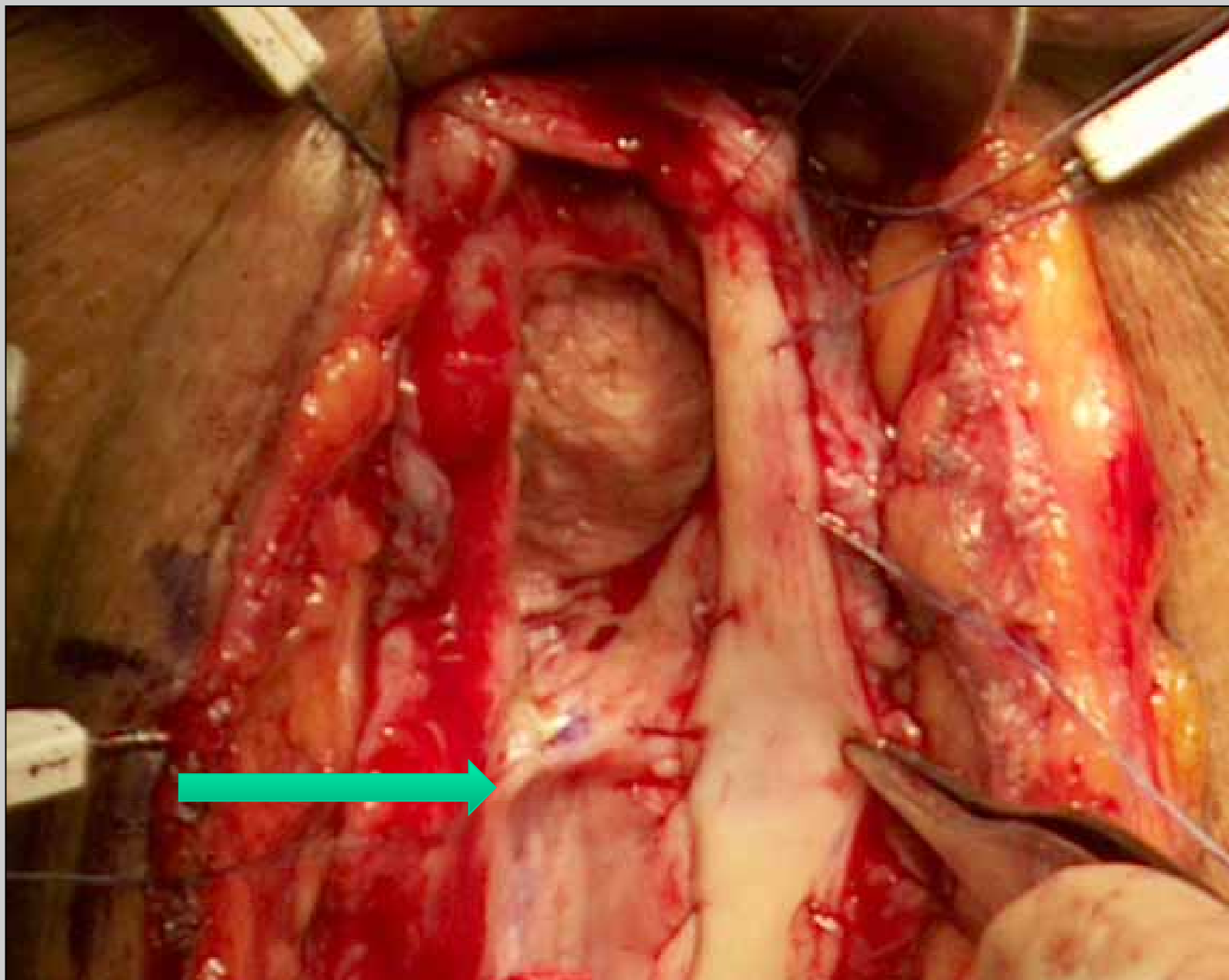


**J Urol 2006, 176: 614-619**

# Distal and proximal anastomotic rings



J Urol 2006, 176: 614-619

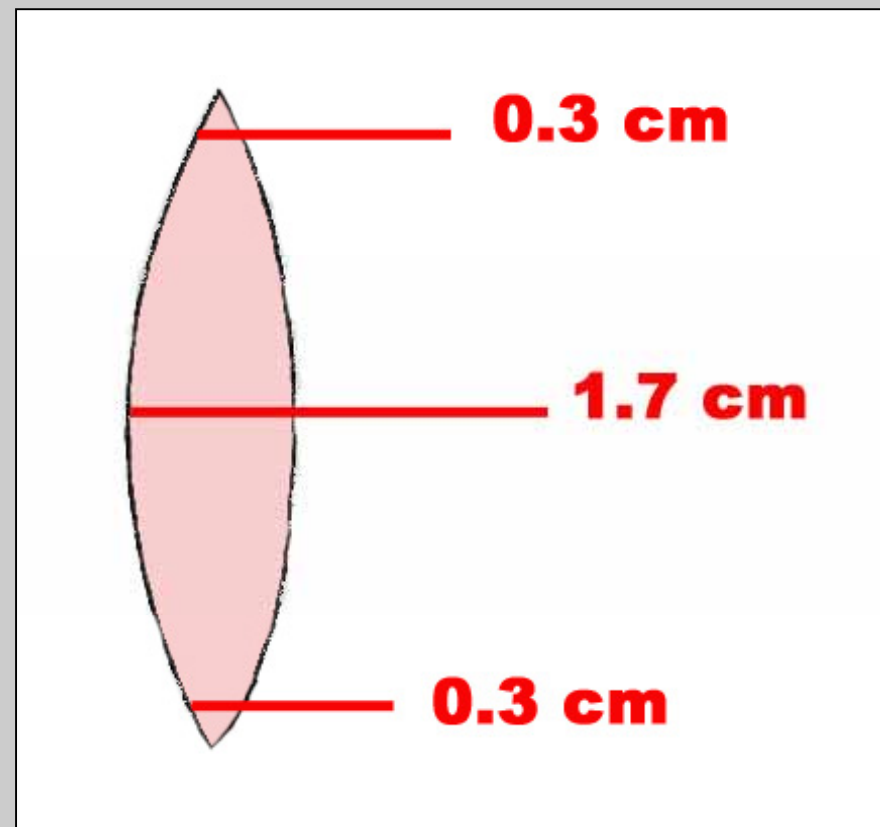
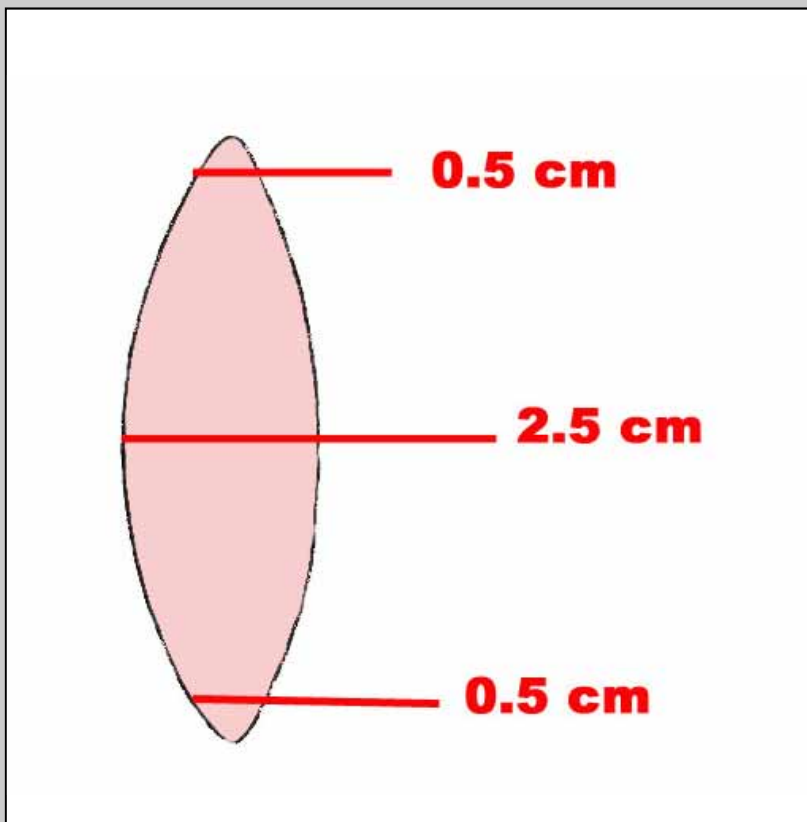


# **Cause of anastomotic fibrous ring after bulbar onlay graft urethroplasty**

- **recurrence of the disease**
- **graft retraction**
- **suture lines**
- **suture material**
- **ischemia and poor vascularized graft bed**

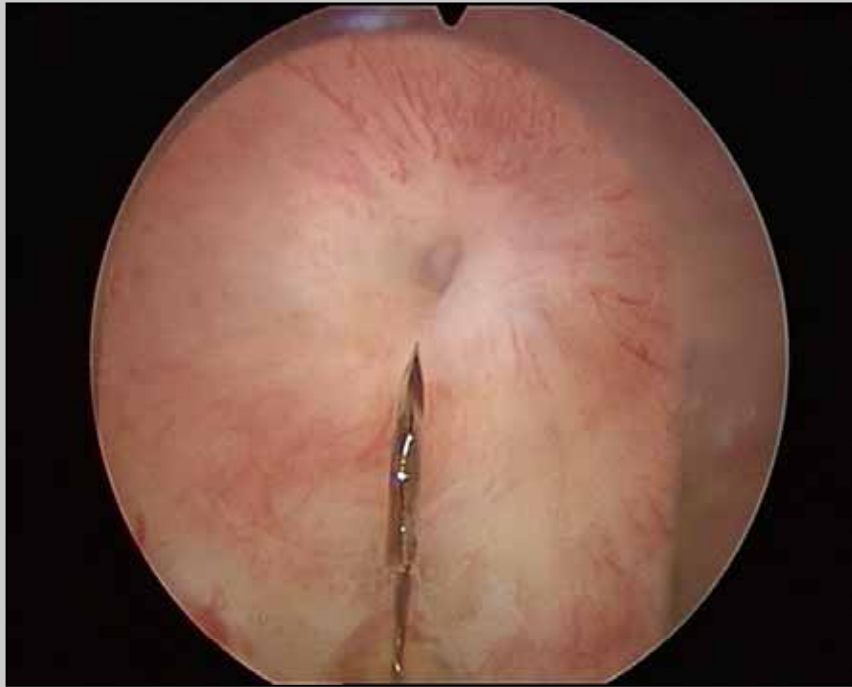
**J Urol 2006, 176: 614-619**

# Graft retraction



J Urol 2006, 176: 614-619

# Surgeon experience and background



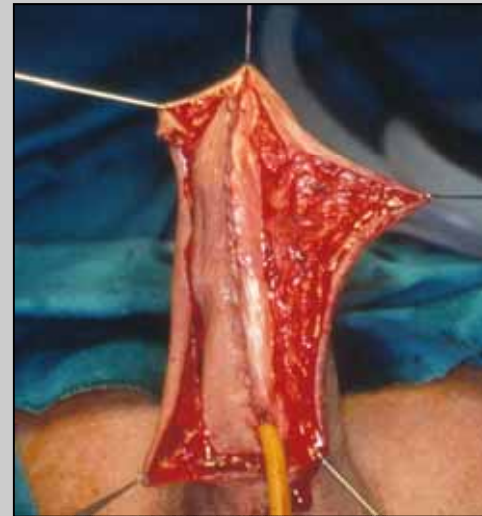
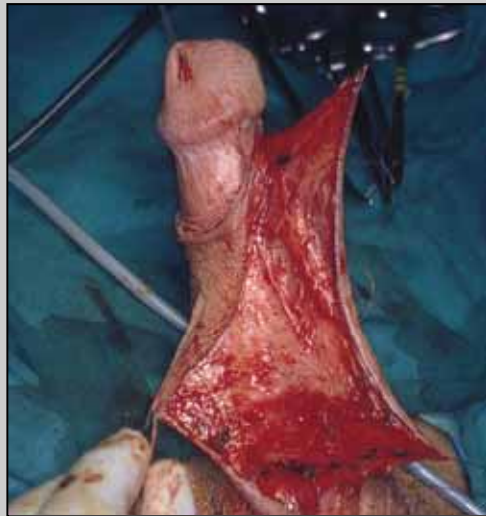
endoscopy



surgery



# Surgeon experience and background



flap

graft



# **Literature suggestions**

**The literature don't provide sure guidelines for the management of patient after urethroplasty failure.**

**No homogenous series of patients**

**No homogenous follow-up criteria**



# Psychological compliance of the patient



“I underwent an innumerable number of prior failed operations. I am tired.”

# **Management of patient after failure of urethroplasty**

**Our experience in 491 patients who underwent  
anterior urethroplasty using one-stage techniques**

# **One-stage penile urethroplasty in 70 patients**



**14 penile skin flap**

**32 penile skin graft**

**24 oral mucosa graft**

**54 (77.1%) success**

**16 (22.9%) failure**

# **One-stage penile urethroplasty in 70 patients**

**54 (77.1%) success**

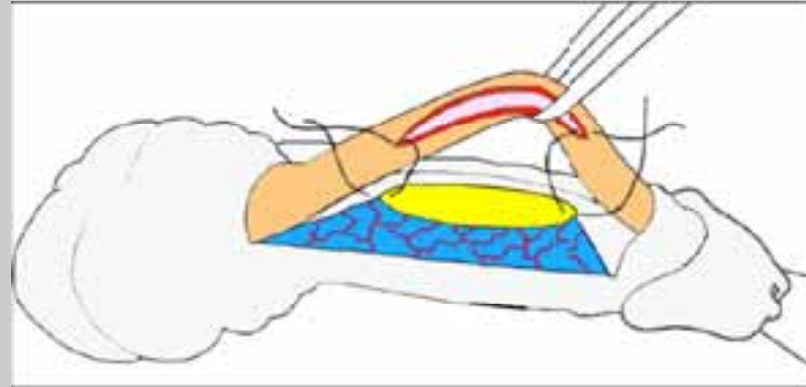
**16 (22.9%) failures**

**9 one-stage repair**

**5 two-stage repair**

**2 meatotomy**

# One-stage penile skin flap urethroplasty



**14 patients** { **9 success**  
**5 failure**

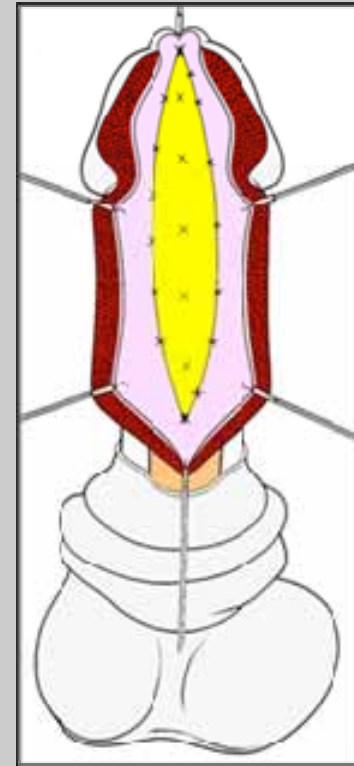
Surgical technique	Result	Redo-technique	Result
Penile skin flap	5 failures	3 oral graft repair	success
		2 two-stage repair	success

# One-stage penile skin graft urethroplasty

**32 patients**

**25 success**

**7 failure**



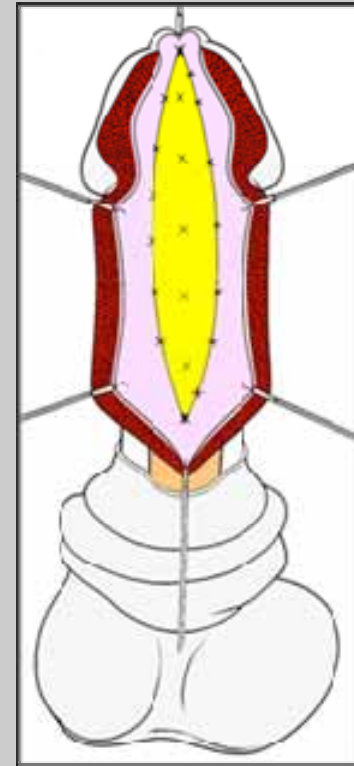
Surgical technique	Result	Redo-technique	Result
Penile skin graft	7 failures	4 penile flap repair	success
		2 two-stage repair	success
		1 end-to-end	success

# One-stage penile oral mucosa graft urethroplasty

**24 patients**

**20 success**

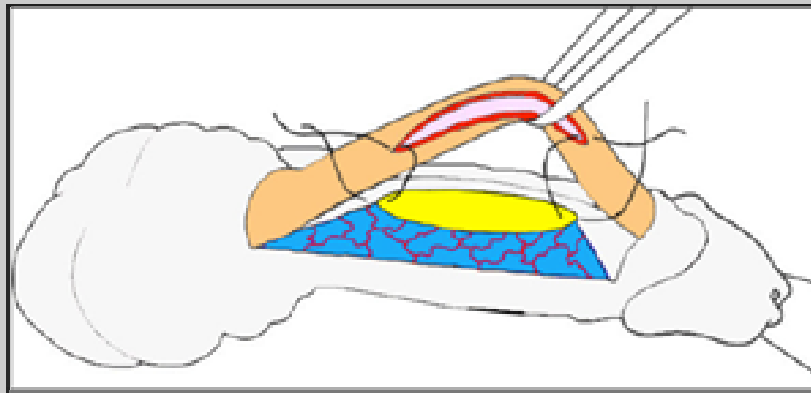
**4 failure**



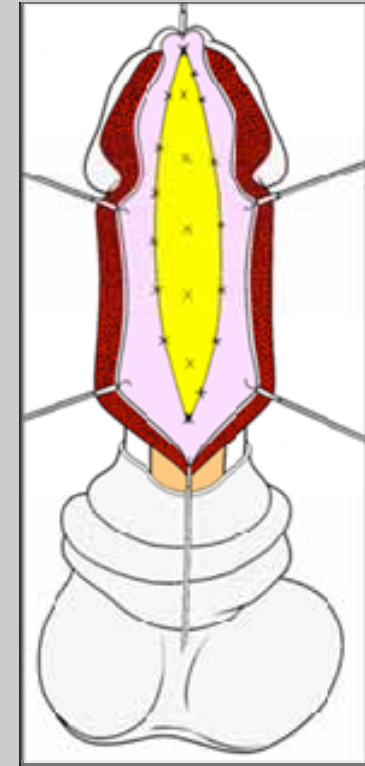
Surgical technique	Result	Redo-technique	Result
Penile oral graft	4 failures	2 meatotomy	success
		1 penile skin flap repair	success
		1 two-stage reapiir	success

# One-stage penile urethroplasty

**flap**



**graft**



**3 flap failure**

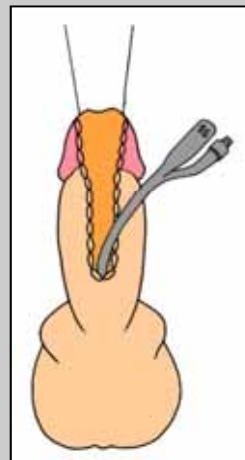
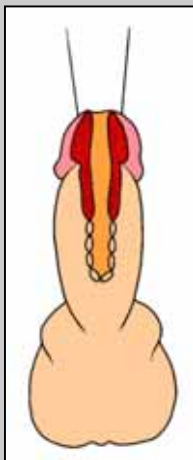
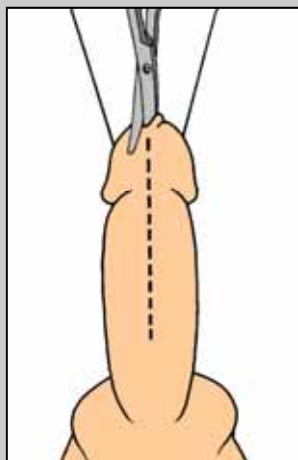
**3 new graft repair**

**5 new flap repair**

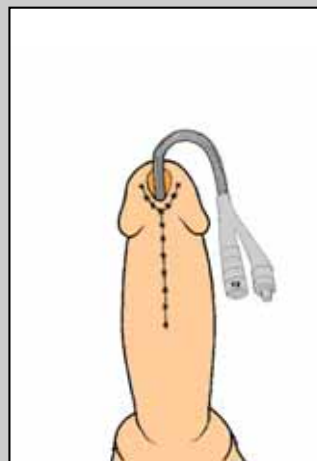
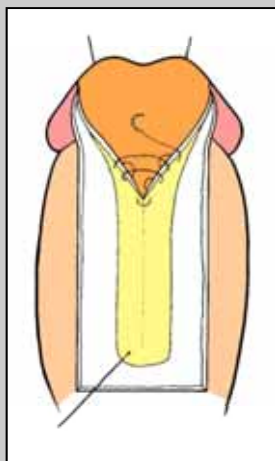
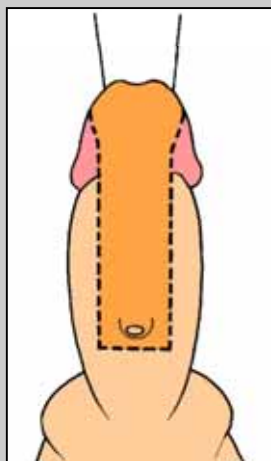
**5 graft failure**



# One-stage penile urethroplasty



**First stage**



**Second stage**

**5 failure**

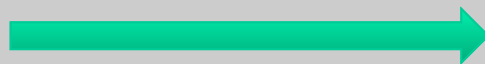


**5 two-stage repair**

# One-stage penile urethroplasty



**2 failure**



**2 meatotomy**



# **One-stage penile urethroplasty in 70 patients**

**One operation: 54 (77.1%)**

**Two operations: 9 (12.9%)**

**Three operations: 5 (7.1%)**

**Waiting list: 2 (2.9%)**

# One-stage penile urethroplasty



**In our Center the patient is fully informed that the stricture recurrence after one-stage repair may require more than one operation to be permanently cured.**

# One-stage **bulbar urethroplasty**

## End-to-end anastomosis

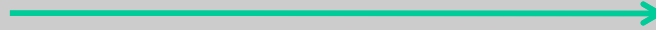
**202 patients** { **179 success**  
**23 failure**

## Oral mucosa graft

**219 patients** { **187 success**  
**32 failure**

# **Management of 23 patients after failure of bulbar end-to-end anastomosis**

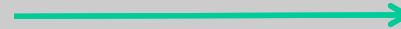
**16 urethrotomy**



**13 success (82%)**

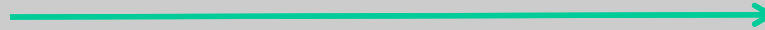
**3 failure (18%)**

**3 perineal urethrostomy**



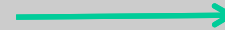
**3 waiting list**

**2 end-to-end**



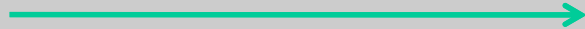
**2 success (100%)**

**1 one-stage oral mucosa repair**



**1 success (100%)**

**1 two-stage repair**



**1 success (100%)**

**16 urethrotomy**

**13 success (82%)**

**3 failure (18%)**

**1 one-stage oral mucosa repair**

**1 two-stage repair**

**1 perineal urethrostomy**

**success**

**waiting list**



# **Bulbar end-to-end anastomosis in 202 patients**

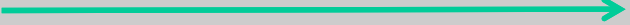
**One operation: 179 (88.6%)**

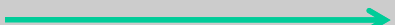
**Two operations: 17 (8.4%)**

**Three operations: 3 (1.5%)**

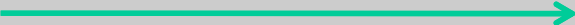
**Waiting list: 3 (1.5%)**

# **Management of 32 patients after failure of bulbar one-stage oral mucosa urethroplasty**

**27 urethrotomy**  **13 success (48.2%)**  
**14 failure (51.8%)**

**3 perineal urethrostomy**  **3 waiting list**

**1 first stage of Johanson procedure**  **1 waiting list**

**1 two-stage repair**  **1 failure (100%)**

## 27 urethrotomy

**14 failure (51.8%)**

**13 success (48.2%)**

**9 one urethrotomy**

**6 success**

**3 failure**

**1 end-to-end**

**failure**

**2 oral graft**

**success**

**2 perineal urethrostomy**

**success**

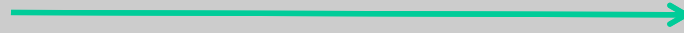
# One-stage bulbar urethroplasty

**421 patients**

**366 (87%) success**

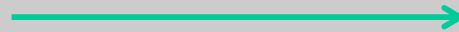
**55 (13%) failure**

**43 urethrotomy**



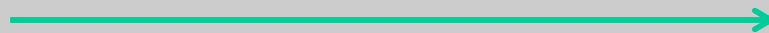
**{ 26 success (60.4%)  
17 failure (39.6%)**

**6 perineal urethrostomy**



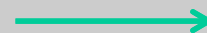
**6 waiting list**

**2 end-to-end**



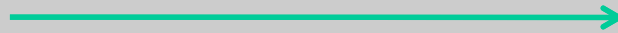
**2 success (100%)**

**1 first stage of Johanson procedure**



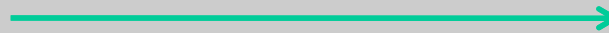
**1 waiting list**

**1 one-stage repair**



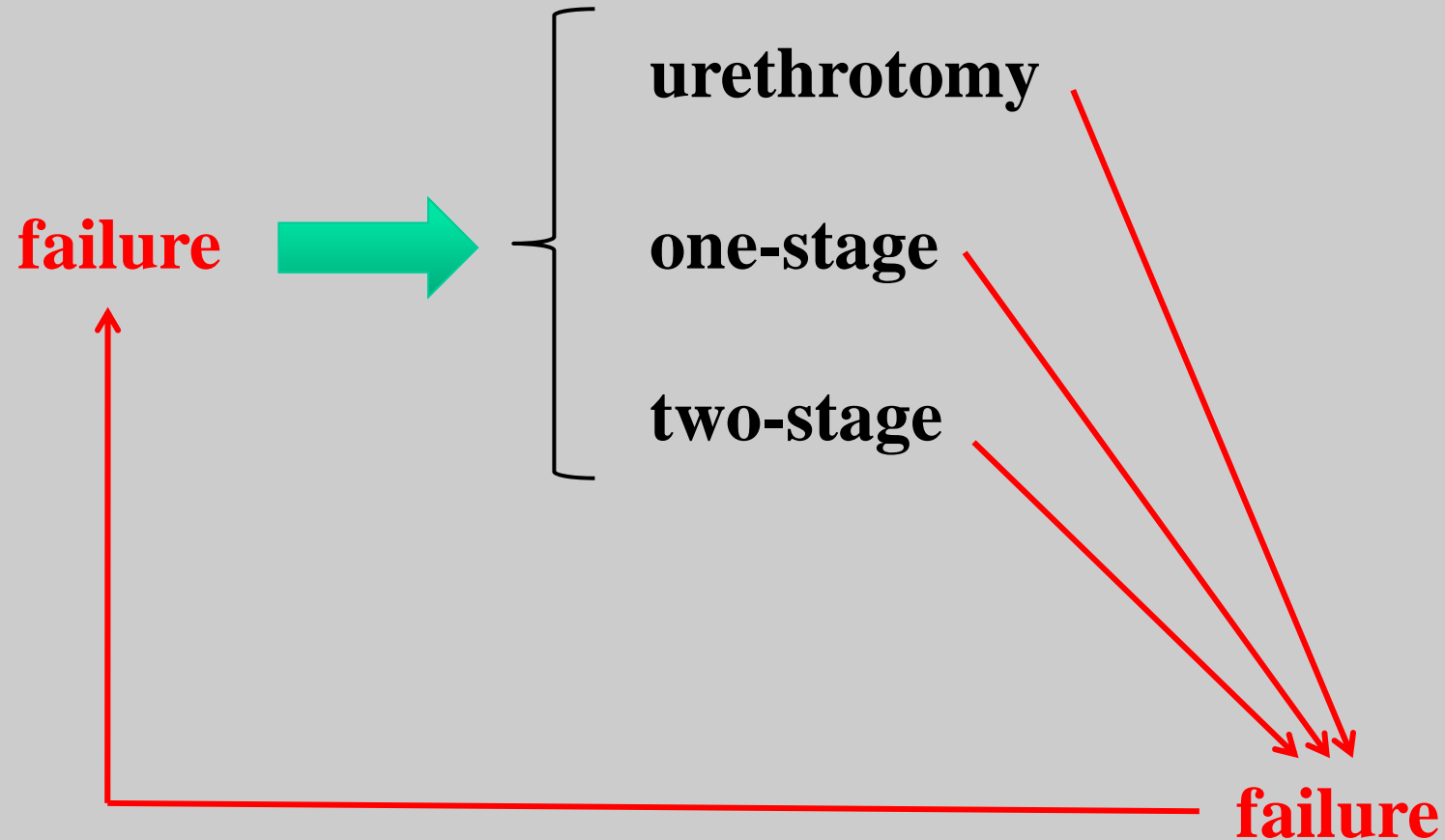
**1 success (100%)**

**2 two-stage repair**



**{ 1 success (50%)  
1 failure (50%)**

# One-stage bulbar urethroplasty



# One-stage bulbar urethroplasty



**In our Center the patient is fully informed that one-stage bulbar urethroplasty provide 87% success rate and 13% of patients will require a new surgery.**



**[www.urethralcenter.it](http://www.urethralcenter.it)**



**Next month, this lecture will be fully available on our website**

**Thank you !**

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