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Urology 2007
State of the art...
Looking at the future

May 2 - 5, 2007

Messina - Italy



Reconstructive urethral surgery





Looking at the future...



Center for Reconstructive Urethral Surgery





...sometimes means returning to where one left off



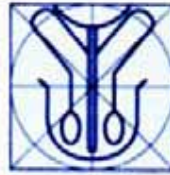
**Looking at the future...for me, meant
reviewing the results of all the
urethroplasties I have performed up until**





Looking at the future...for me, meant reporting these data in a dedicate website and making them as available as possible to the public and urologists





CENTER FOR RECONSTRUCTIVE URETHRAL SURGERY

Director: GUIDO BARBAGLI

www.urethralcenter.it



Prof. Guido Barbagli
Where we are
Scientific activity
What is the Center
Urethral Patology
Clinical Activity performed at our center
Results of urethroplasties
Clinical Research
Meetings & congresses
Training
Editorial
Historical review
Atlas of surgical techniques
Videos
Meetings lectures
Scientific Director Dr. Massimo Lazzeri

- [End-to-end anastomosis](#) (update to 12/31/2006)
- [Augmented anastomotic repair using dorsal skin graft](#) (update to 12/31/2006)
- [Augmented anastomotic repair using dorsal buccal mucosal graft](#) (update to 12/31/2006)
- [Augmented anastomotic repair using ventral buccal mucosal graft](#) (update to 12/31/2006)
- [Dorsal buccal mucosal onlay graft urethroplasty](#) (update to 12/31/2006)
- [Lateral buccal mucosal onlay graft urethroplasty](#) (update to 12/31/2006)
- [Circumferential substitution buccal mucosal graft urethroplasty](#) (update to 12/31/2006)



Center for Reconstructive Urethral Surgery



Results of 375 one-stage bulbar urethroplasties



Looking at the future...



End-to-end anastomosis: 165 patients

Augmented anastomotic repair: 40 patients

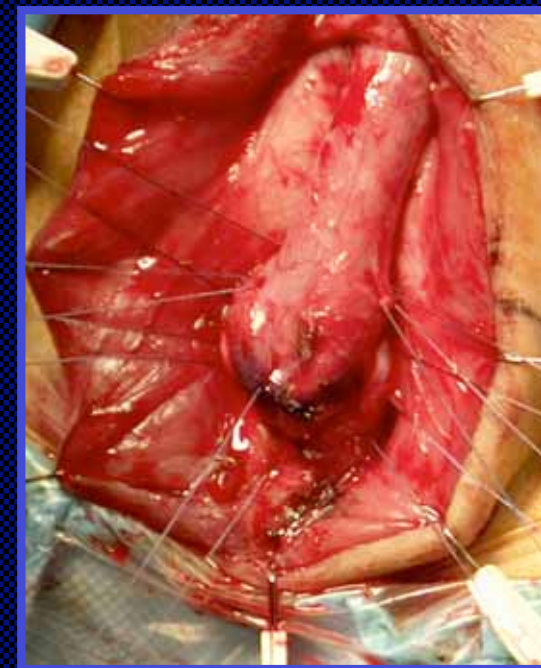
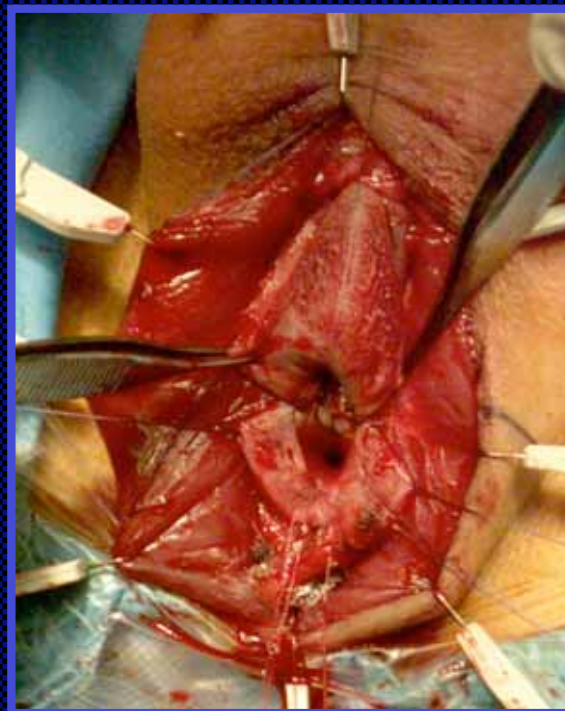
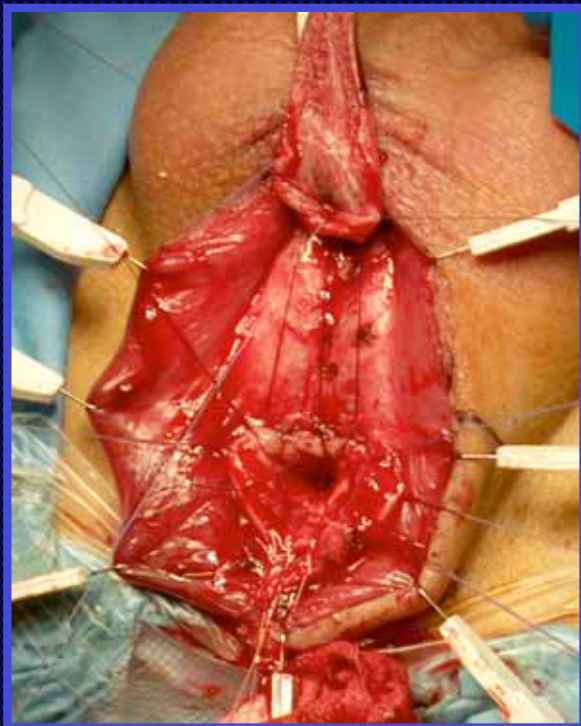
- dorsal skin graft
- dorsal buccal mucosal graft
- ventral buccal mucosal graft

Onlay graft urethroplasty: 170 patients

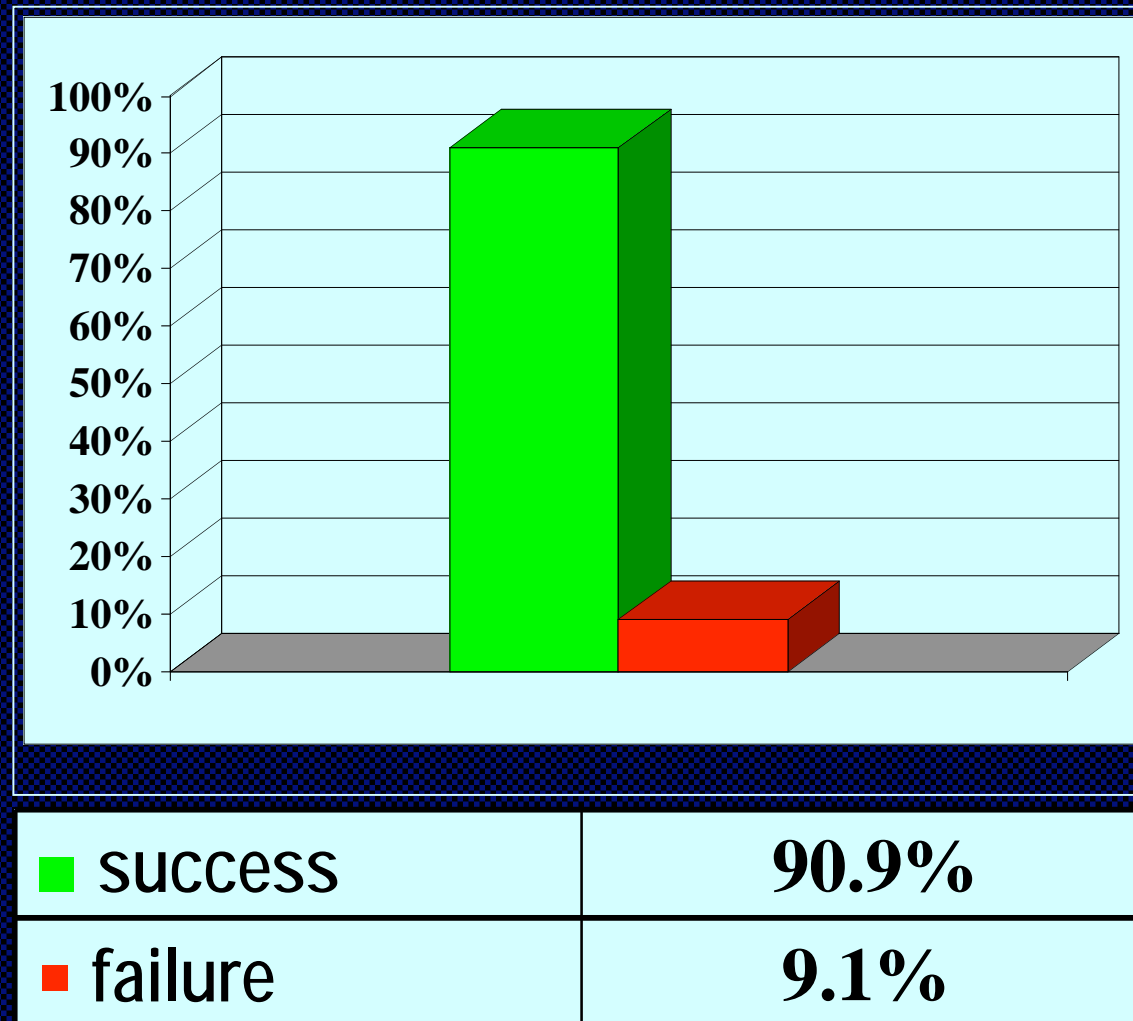
- ventral onlay (BM)
- dorsal onlay (BM)
- lateral onlay (BM)
- circumferential substitution onlay (BM)
- dorsal onlay (skin)



End-to-end anastomosis



Results of 165 end-to-end anastomosis

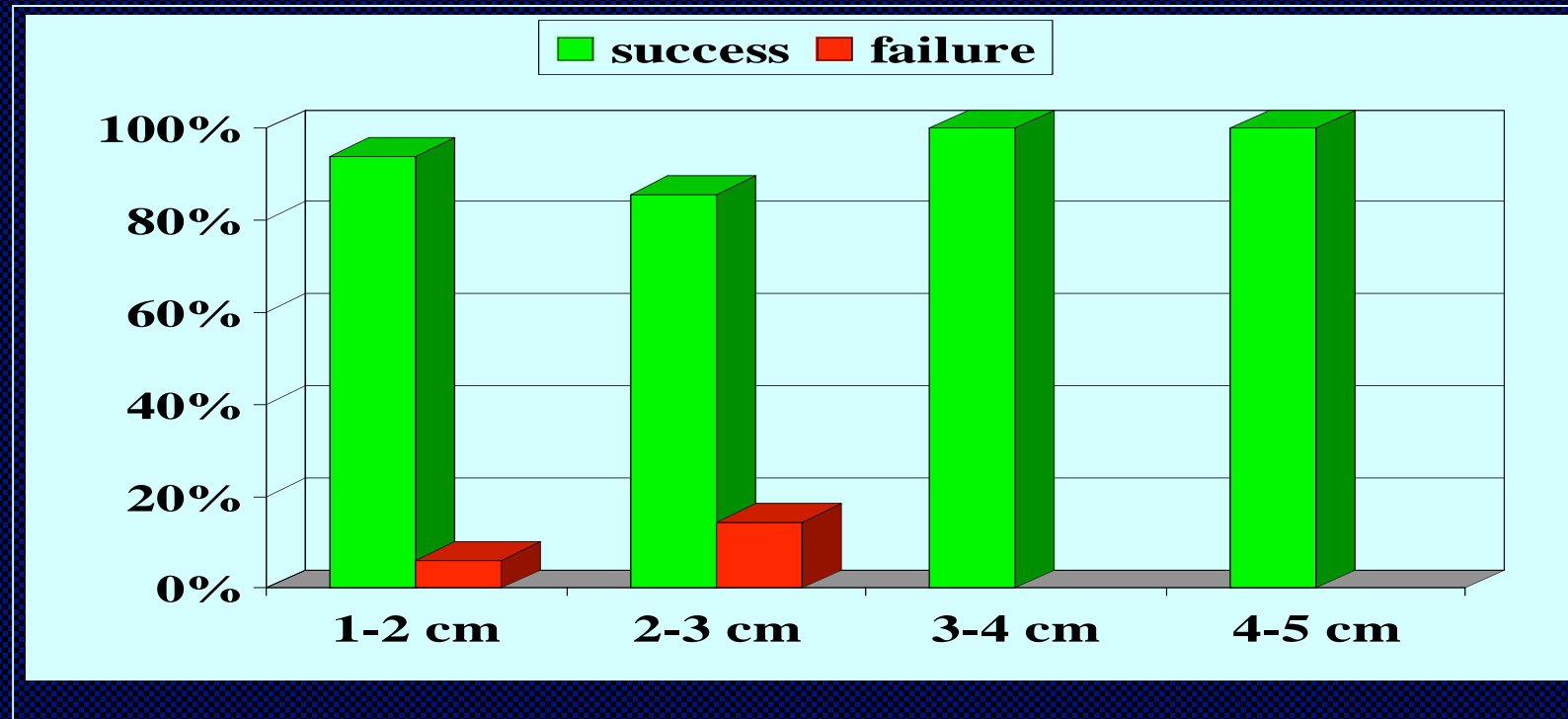


Outcome based on patient age

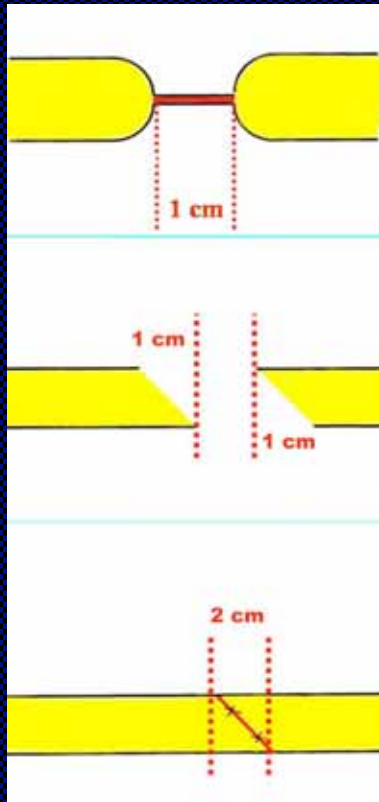


	0-49 years	50-69 years	> 70 years
■ success	91%	86.4%	100%
■ failure	9%	13.4%	

Outcome based on stricture length



	1-2 cm	2-3 cm	3-4 cm	4-5 cm
■ success	93.8%	85.7%	100%	100%
■ failure	6.2%	14.3%		



**bulbar urethral
stricture of 1 cm or less**



**penile chordee due to
excessive urethral
shortening**

Guralnick and Webster, J Urol 2001





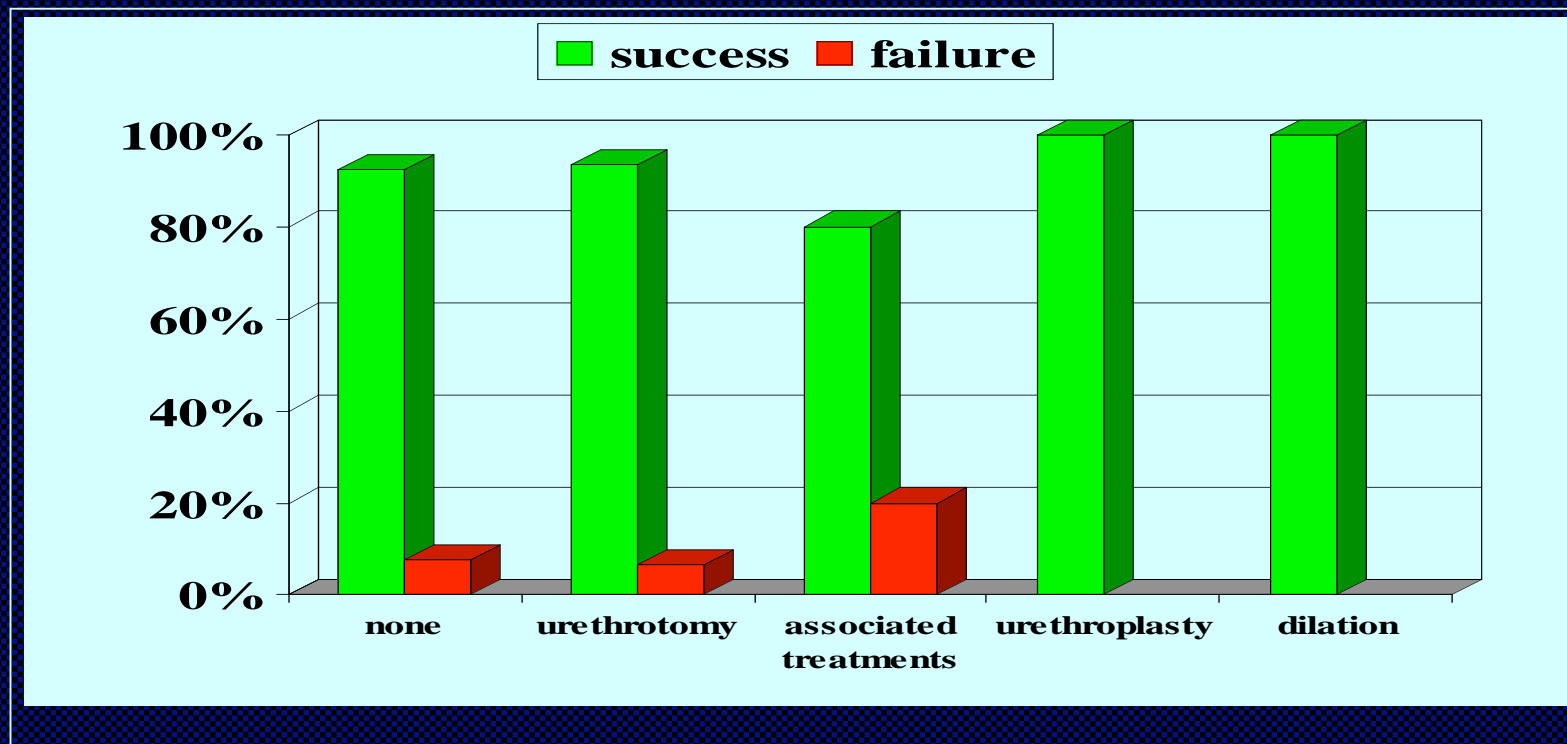
**Urethral reconstructability is proportional to
the length and elasticity of the distal urethra**

Morey et al., J Urol 2006

authors	patients	length	success rate
Santucci et al. 2002	168	1 to 4.5 cm	95%
Morey et al. 2006	22	2.6 to 5 cm	91%
Eltahawy et al. 2005	213	1 to 4.5 cm	98%

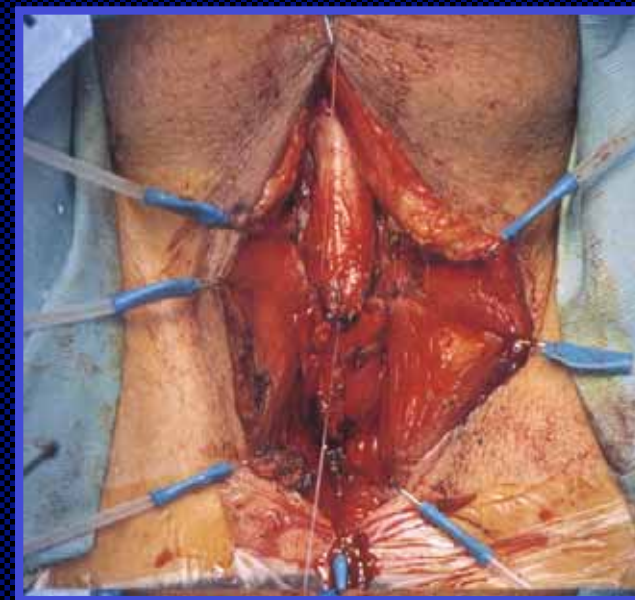
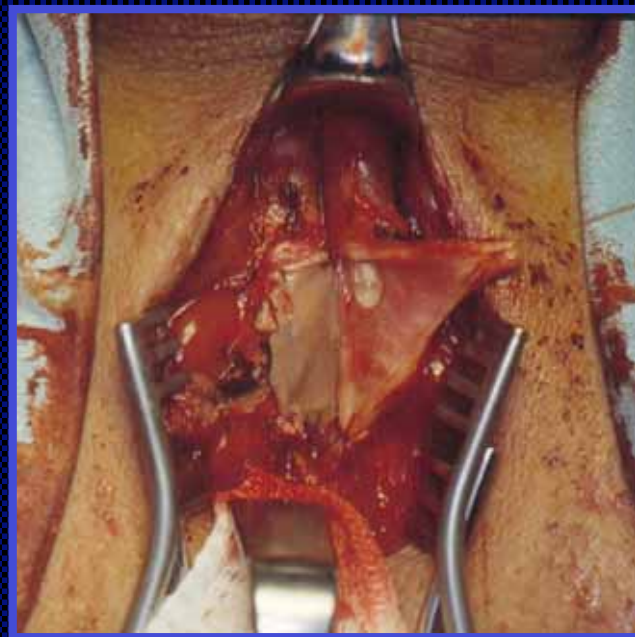
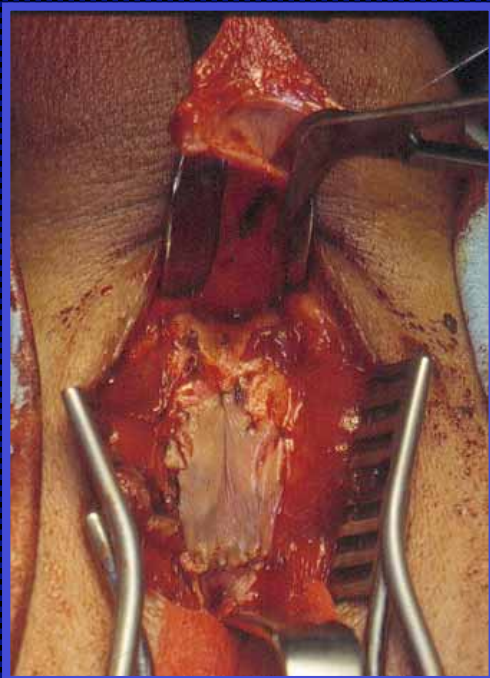


Outcome based on previous treatments

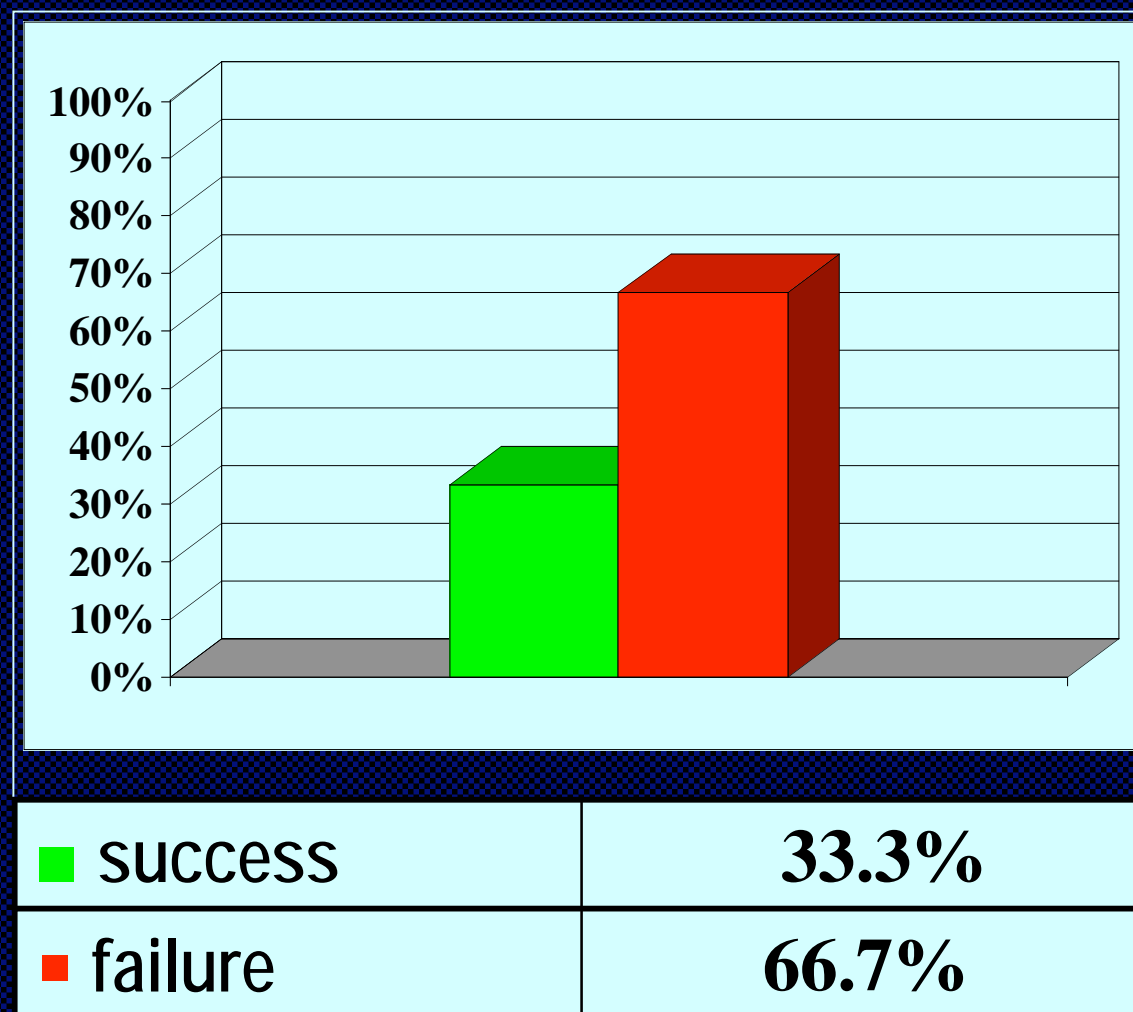


	none	urethrotomy	associated treatments	urethroplasty	dilation
■ success	92.4%	93.4%	80%	100%	100%
■ failure	7.6%	6.6%	20%		

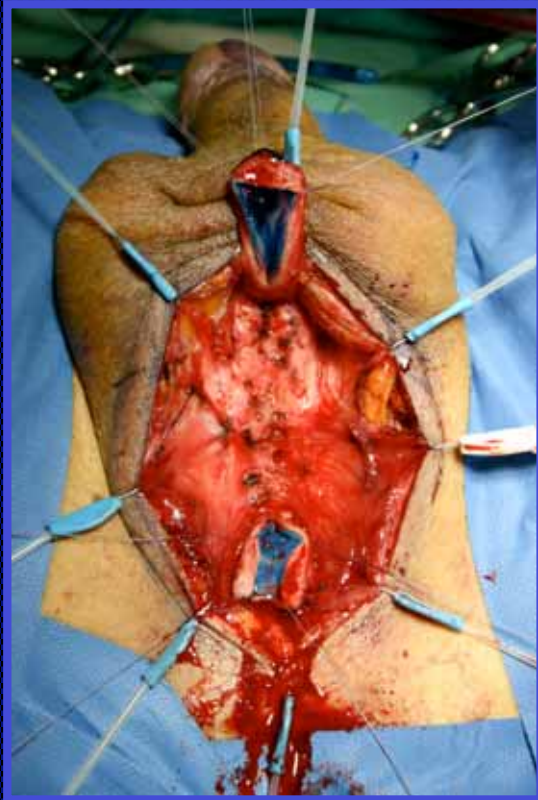
Augmented anastomotic repair using dorsal skin graft



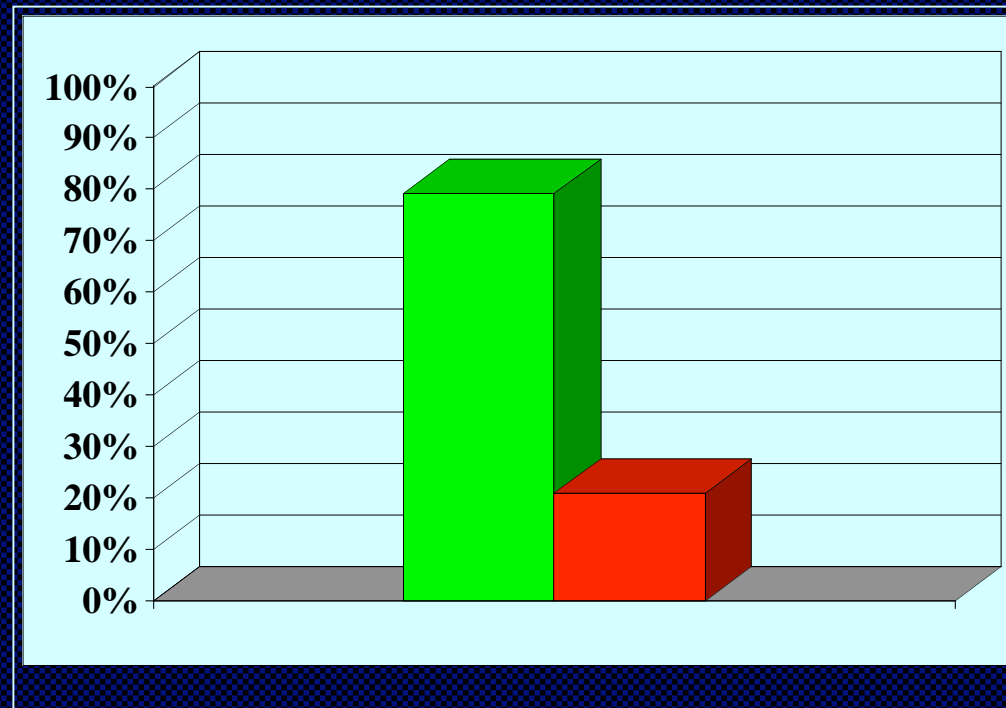
Results of 9 augmented anastomotic repair using dorsal skin graft



Augmented anastomotic repair using dorsal buccal mucosal graft



Results of 24 augmented anastomotic repair using dorsal buccal mucosal graft



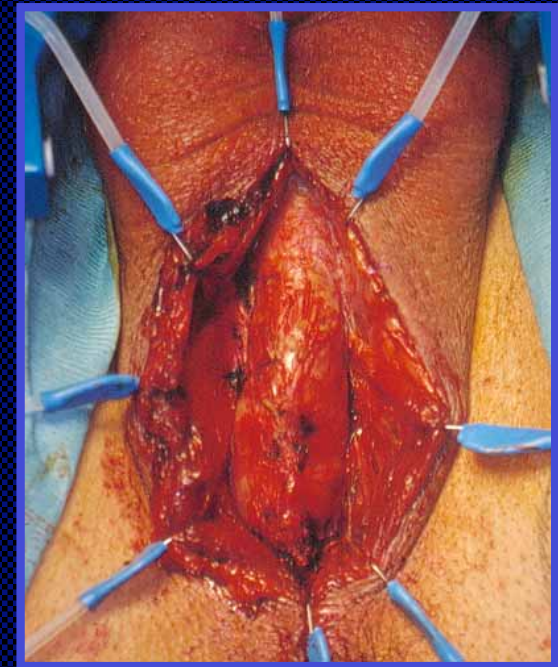
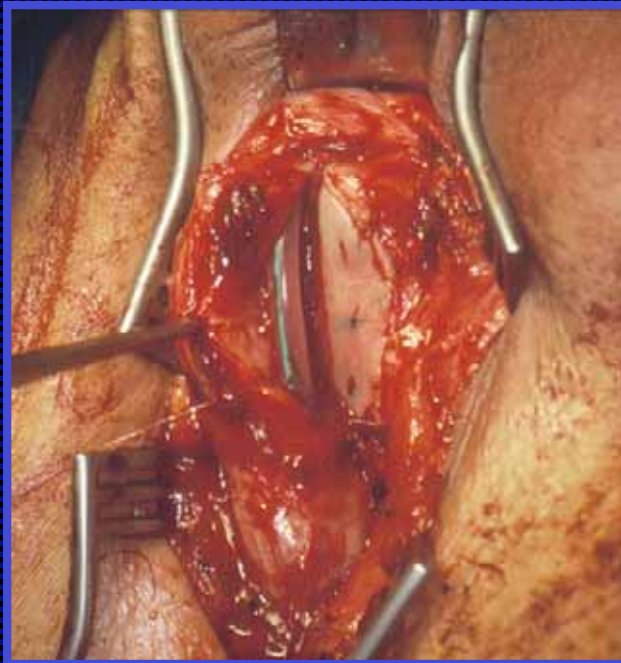
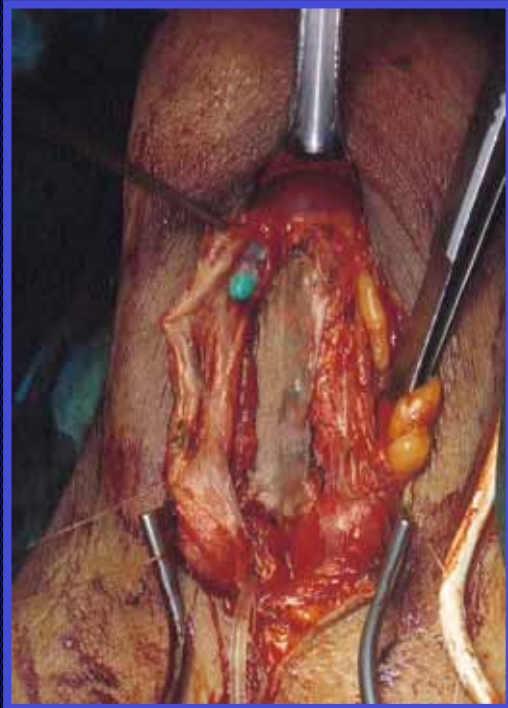
■ success

79.2%

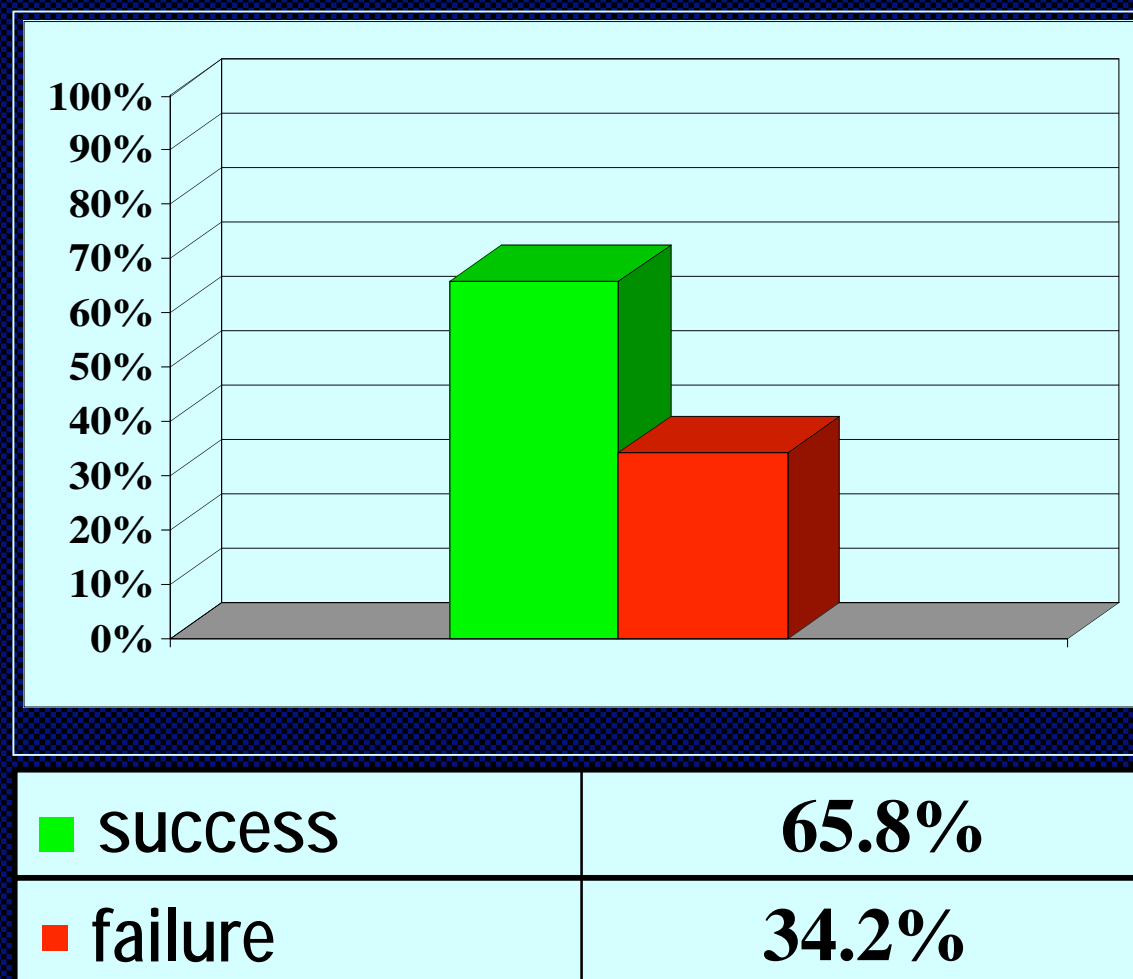
■ failure

20.8%

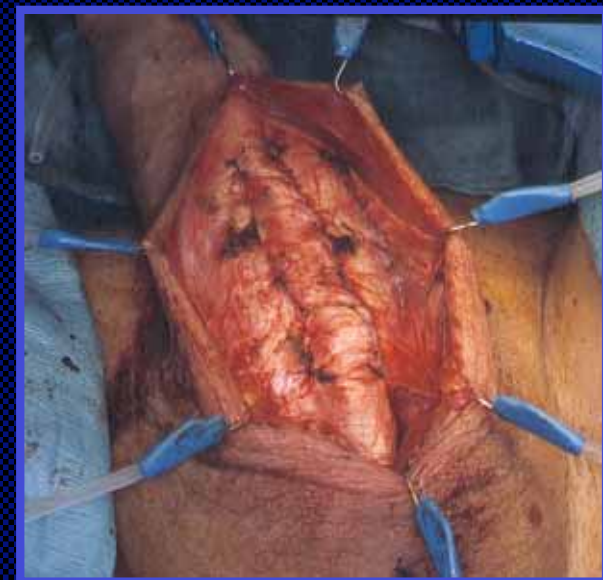
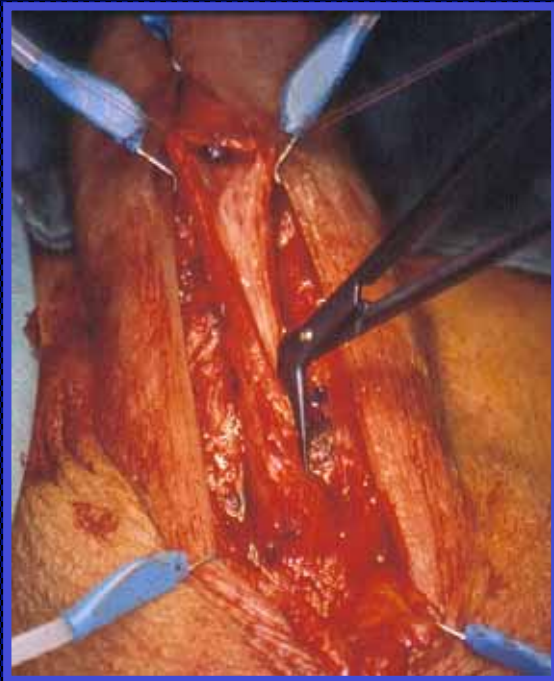
Dorsal skin onlay graft urethroplasty



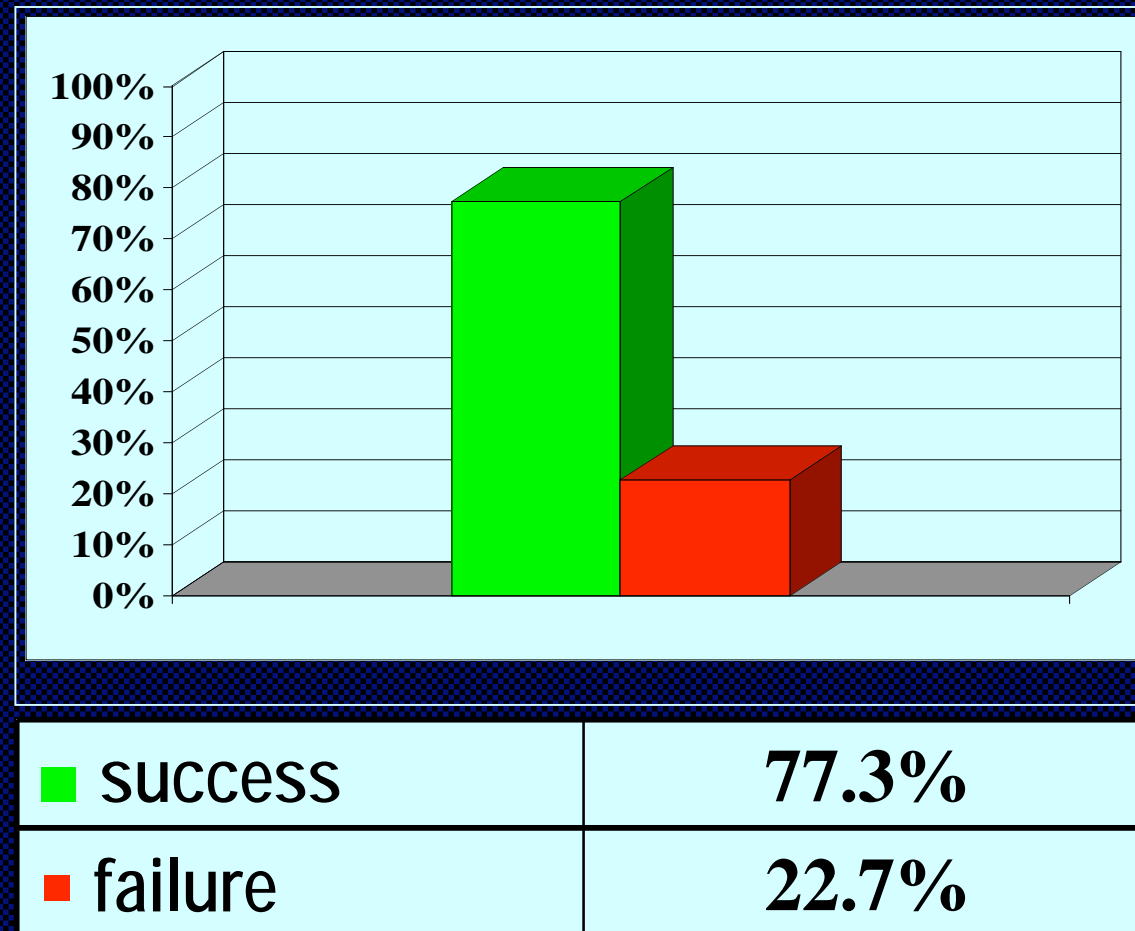
Results of 38 dorsal skin onlay graft urethroplasty



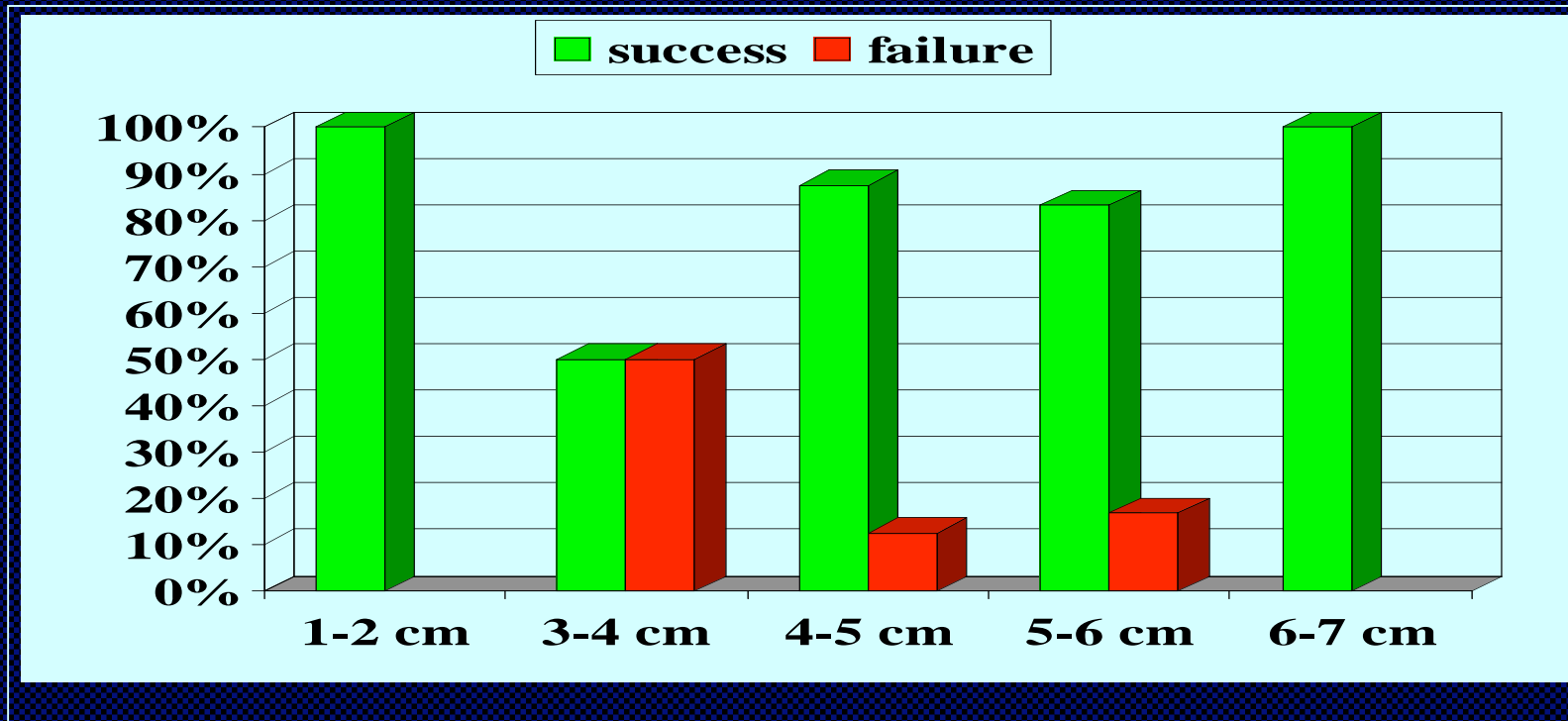
Dorsal buccal mucosal onlay graft urethroplasty



Results of 22 dorsal buccal mucosal onlay graft urethroplasty

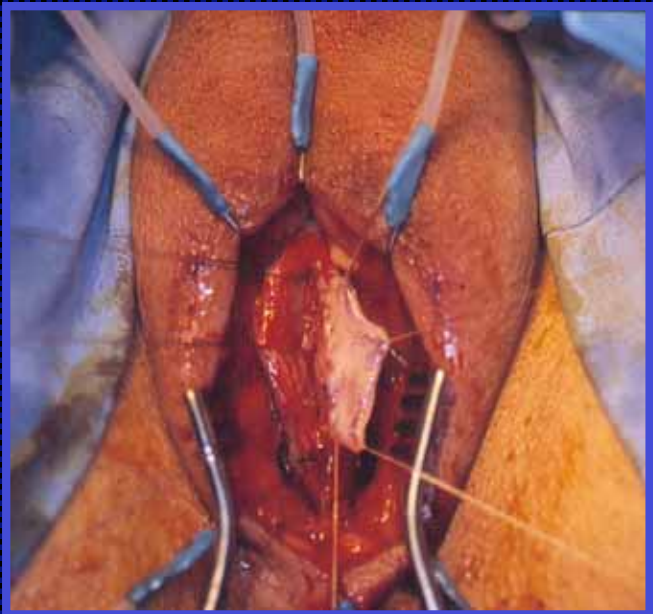


Outcome based on stricture length

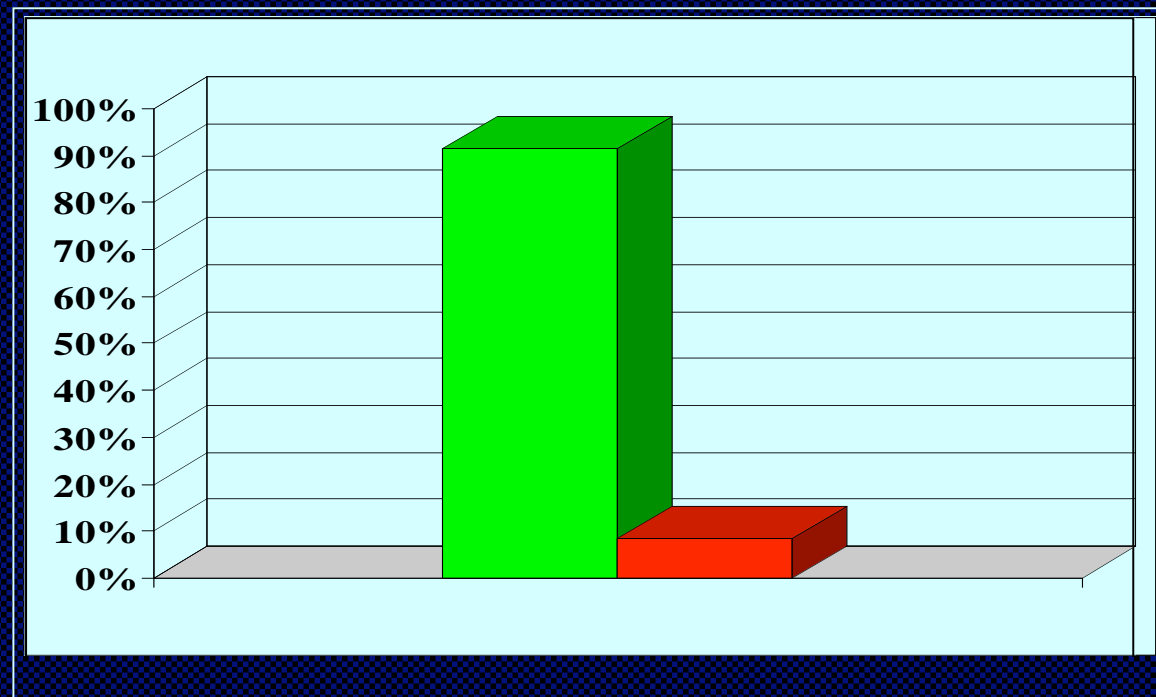


	1-2 cm	3-4 cm	4-5 cm	5-6 cm	6-7 cm
■ success	100%	50%	87.5%	83.3%	100%
■ failure		50%	12.5%	16.7%	

Ventral buccal mucosal onlay graft urethroplasty



Results of 93 ventral buccal mucosal onlay graft urethroplasty



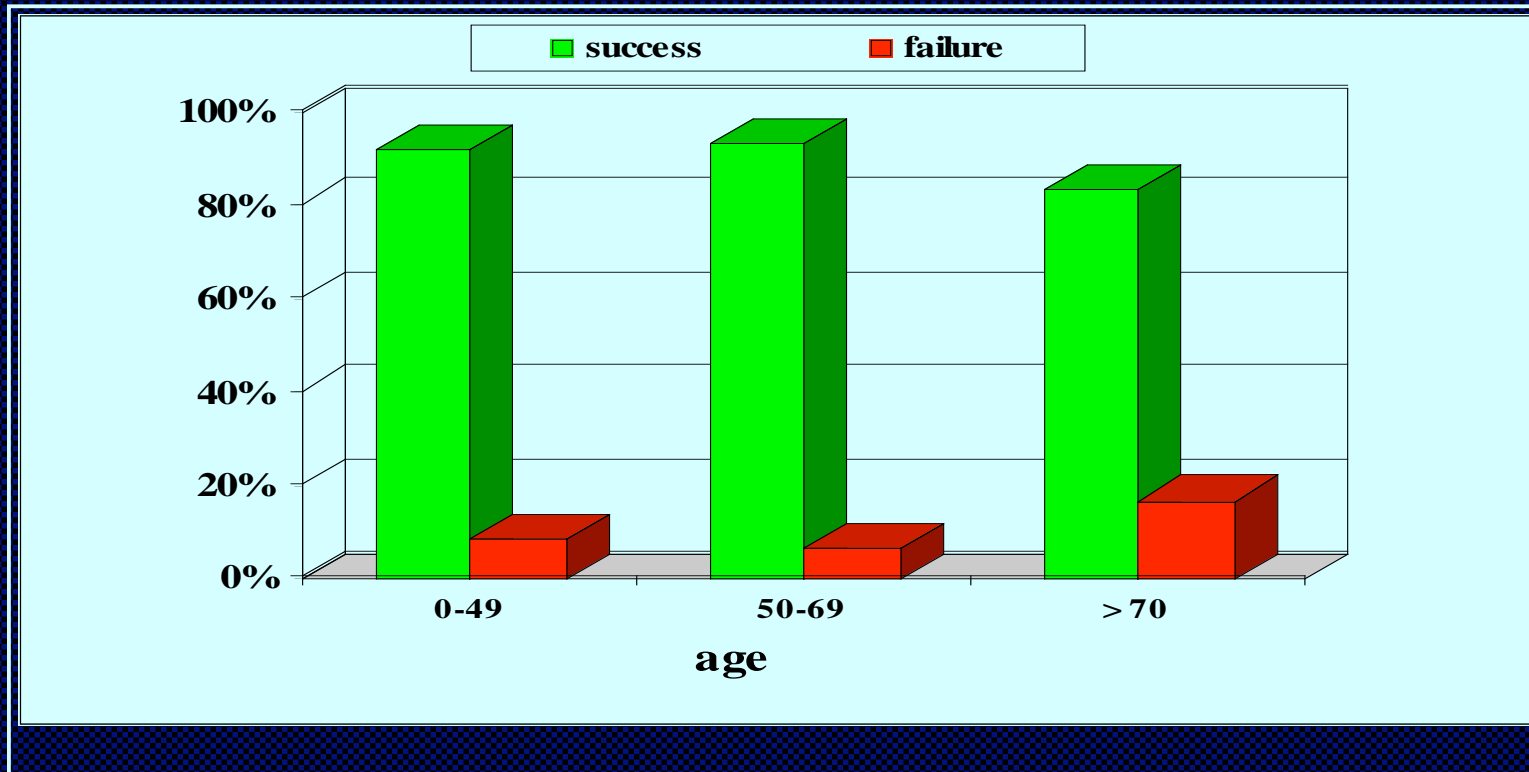
■ success

91.4%

■ failure

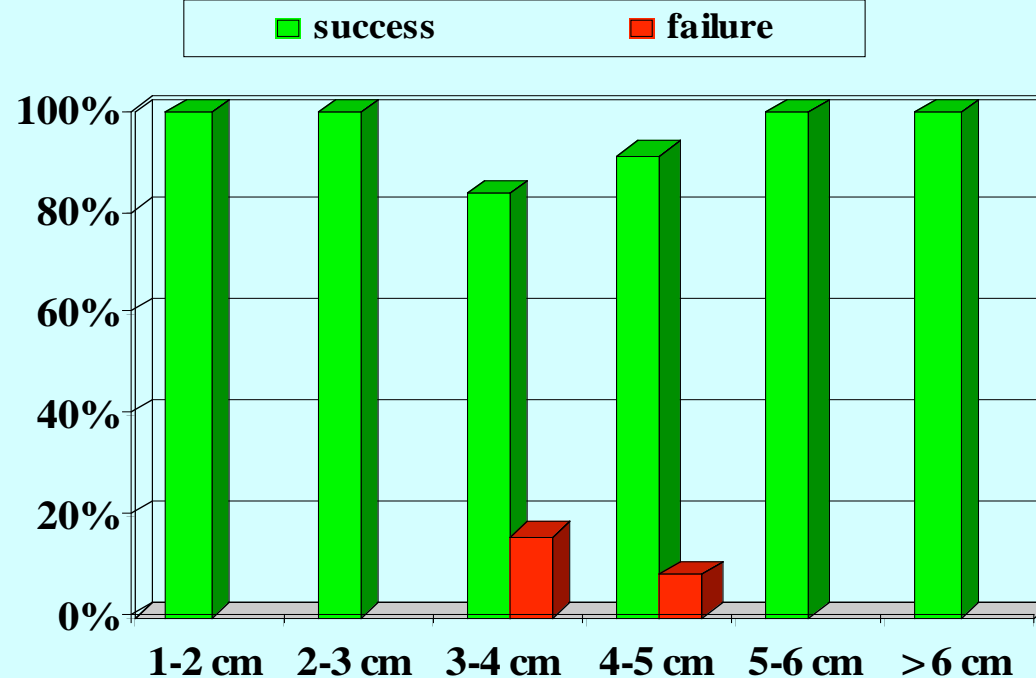
8.6%

Outcome based on patient age



	0-49 years	50-69 years	> 70 years
■ success	91.7%	93.3%	83.3%
■ failure	8.3%	6.7%	16.7%

Outcome based on stricture length



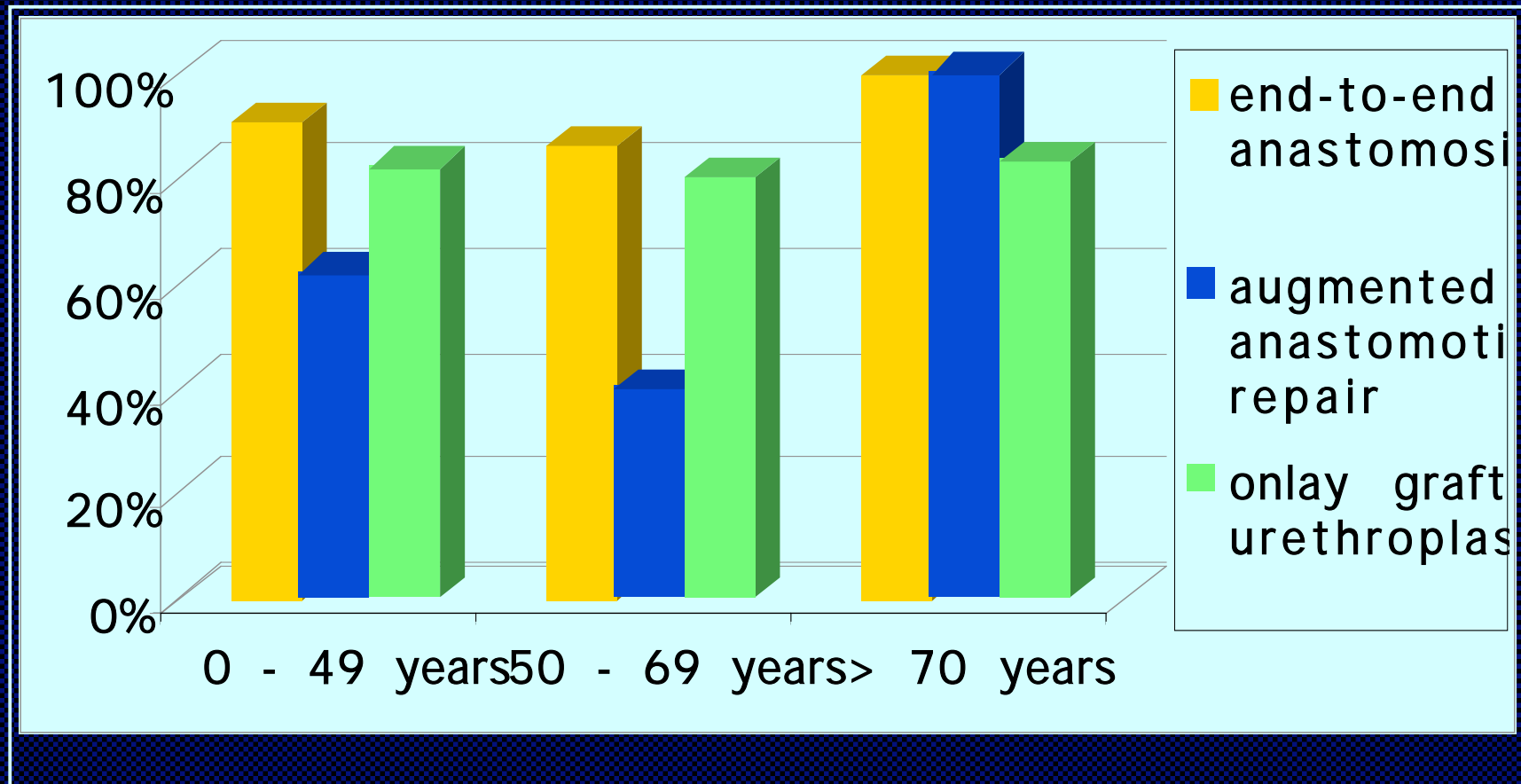
	1-2 cm	2-3 cm	3-4 cm	4-5 cm	5-6 cm	> 6 cm
■ success	100%	100%	84%	91.5%	100%	100%
■ failure			16%	8.5%		

Comparison of success rates of 375 one-stage bulbar urethroplasty

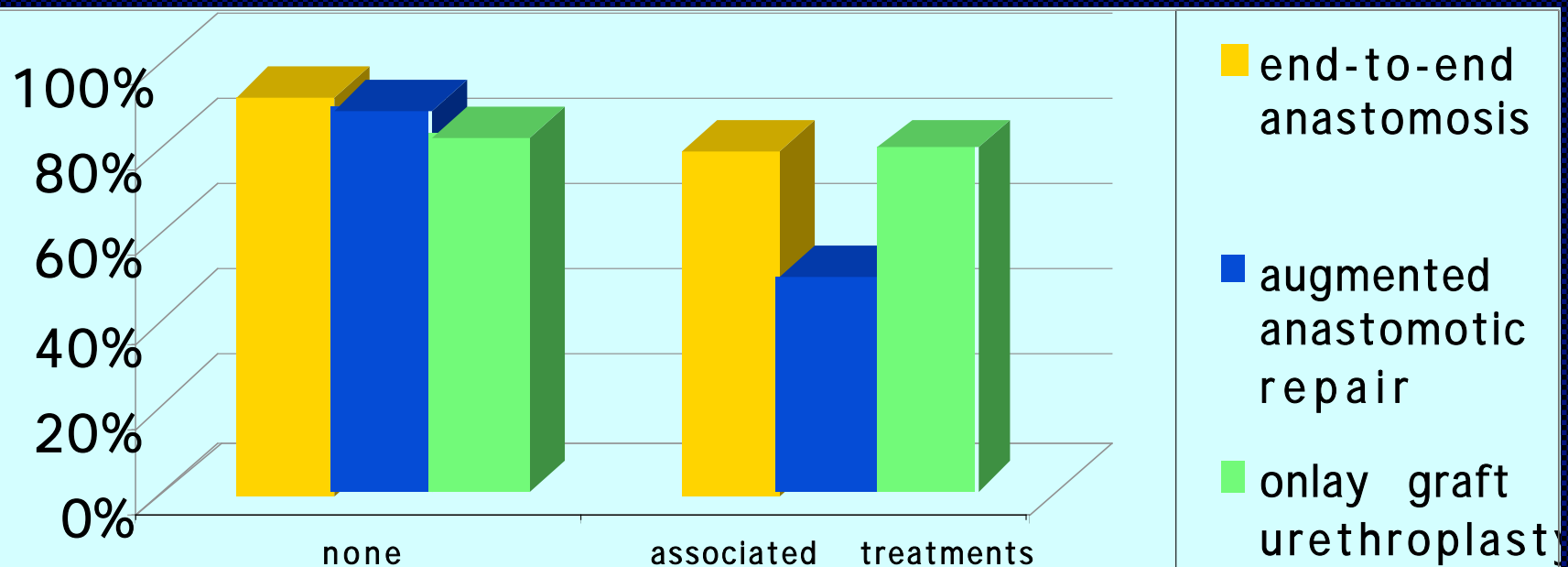
surgical technique	success	failure
end-to-end anastomosis	90.9%	9.1%
onlay graft urethroplasty	81.8%	18.2%
augmented anastomotic repair	60%	40%



Success rate based on patient age



Outcome based on previous treatments



previous treatments	end-to-end anastomosis	augmented anastomosis repair	onlay graft urethroplasty
none	92.4%	88.9%	82.5%
associated treatments	80%	50%	80%

Augmented anastomotic repair

type of repair	success rate
dorsal buccal mucosal graft	79.2%
dorsal skin graft	33.3%
ventral buccal mucosal graft	28.6%

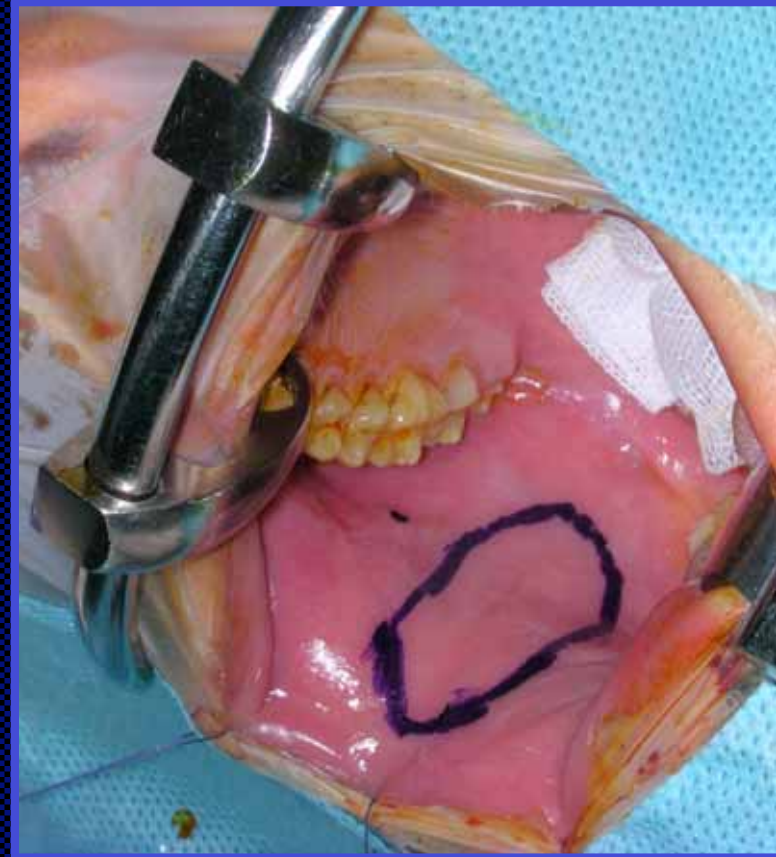
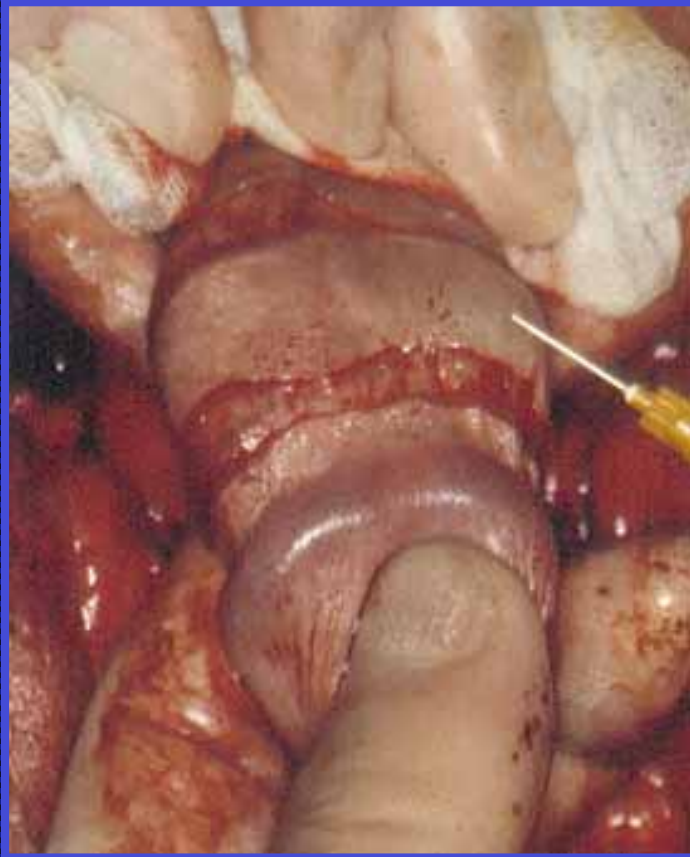


Onlay graft urethroplasty

type of urethroplasty	success rate
ventral onlay (BM)	91.4%
lateral onlay (BM)	83.3%
dorsal onlay (BM)	77.3%
dorsal onlay (skin)	65.8%
substitution onlay (BM)	63.6%



Substitute material



Penile skin or buccal mucosa ?

Success rate based on the substitute material

substitute material	success rate
buccal mucosa	82.8%
penile skin	59.6%



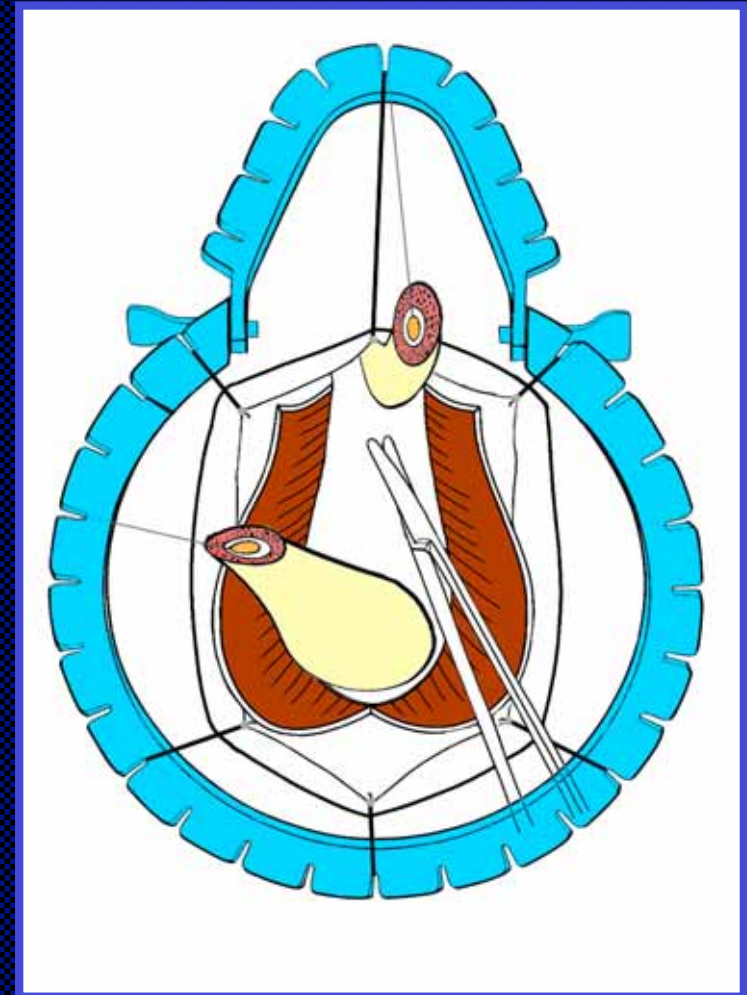
Looking at the future...

Based on these results, is it time to change our approach to surgical treatment of bulbar urethral stricture disease ?



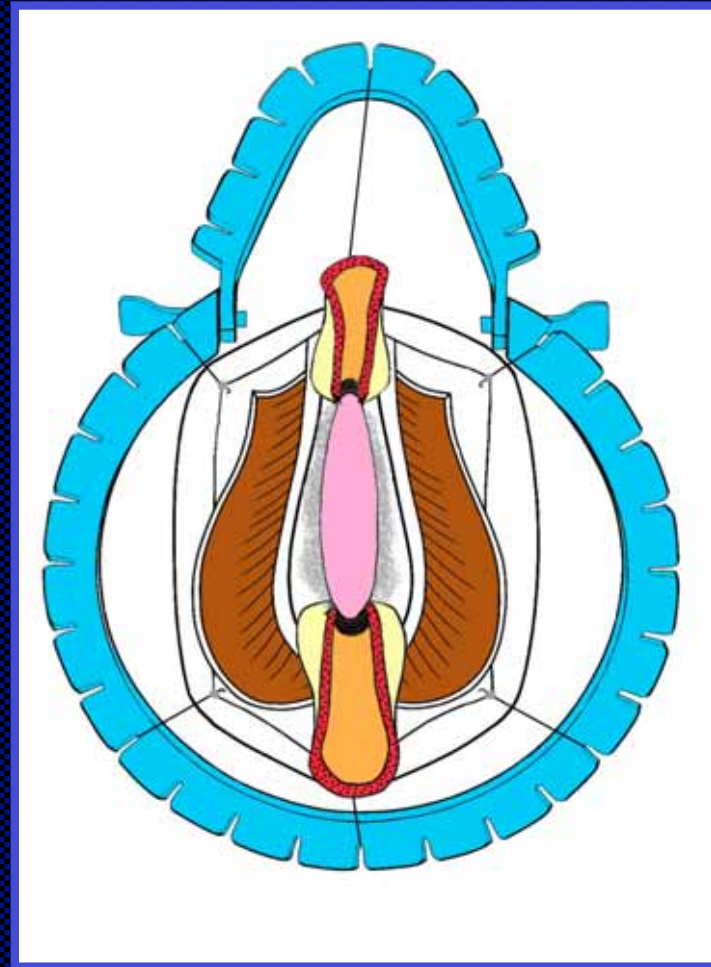
Looking at the future...

End-to-end anastomosis still
represents one of the best technique
for repair of bulbar urethra
strictures of various etiologies,
various lengths, in patients of
various ages



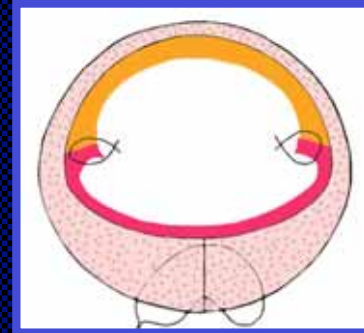
Looking at the future...

- **Augmented anastomotic repair** should be reserved only for complex cases when end-to-end anastomosis or the onlay graft procedure are not appropriate
- The patient should be informed that the success rate of this technique is about 60%

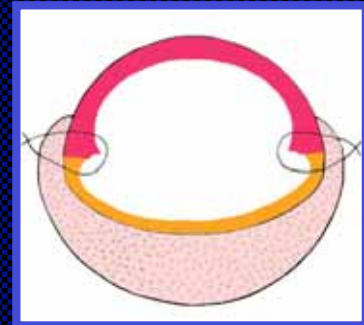


Looking at the future...

- The use of **onlay graft procedures** still represents the only valid alternative to an end-to-end anastomosis
- Buccal mucosa still represents the best substitute material for bulbar urethral reconstruction



ventral graft



dorsal graft

Looking at the future...



We feel that a new frontier of reconstructive urethral surgery must be included in future medical practice: **transparency**



Looking at the future...



Transparency, reporting of data and making them as available as possible to the public, will be our weapon to overcome scepticism of the “**statistically significant results**” that prevail in the medical literature



Looking at the future...



Through the internet, patients have become sophisticated consumers of medical information, and they need more details and easy access to data to choose the best tailored therapy





More than 5000 people visit our website monthly

Center for Reconstructive Urethral Surgery



www.urethralcenter.it



What can you find in www.urethralcenter.it?

- Up-to-date Information on urethral pathology and surgery
- Everything you need to know about urethral stricture diseases
- How to make a diagnosis
- All the surgical techniques performed at our Center
- An up-to-date database of surgical outcome
- Information and opportunities for "hands-on" training
- Up-to-date literature
- The articles published by Guido Barbagli
- The books published by Guido Barbagli
- The lectures presented by Guido Barbagli at Meetings and Congress
- The history of urethral surgery
- An Atlas of Surgical Techniques
- Video
- Comments and suggestion for the urologists of XXI century
- ...and more!

The website is up-to-date monthly

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

Welcome !

