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Annual Meeting of the Sociedad Madrileña de Urología

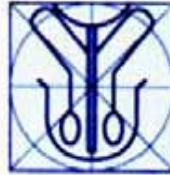
May 11 - 12, 2007

Segovia - Spain



Surgical techniques and results of the bulbar urethral stricture surgery





CENTER FOR RECONSTRUCTIVE URETHRAL SURGERY
Director: GUIDO BARBAGLI

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Prof. Guido Barbagli
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Center for Reconstructive Urethral Surgery



Results of 375 one-stage bulbar urethroplasties



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

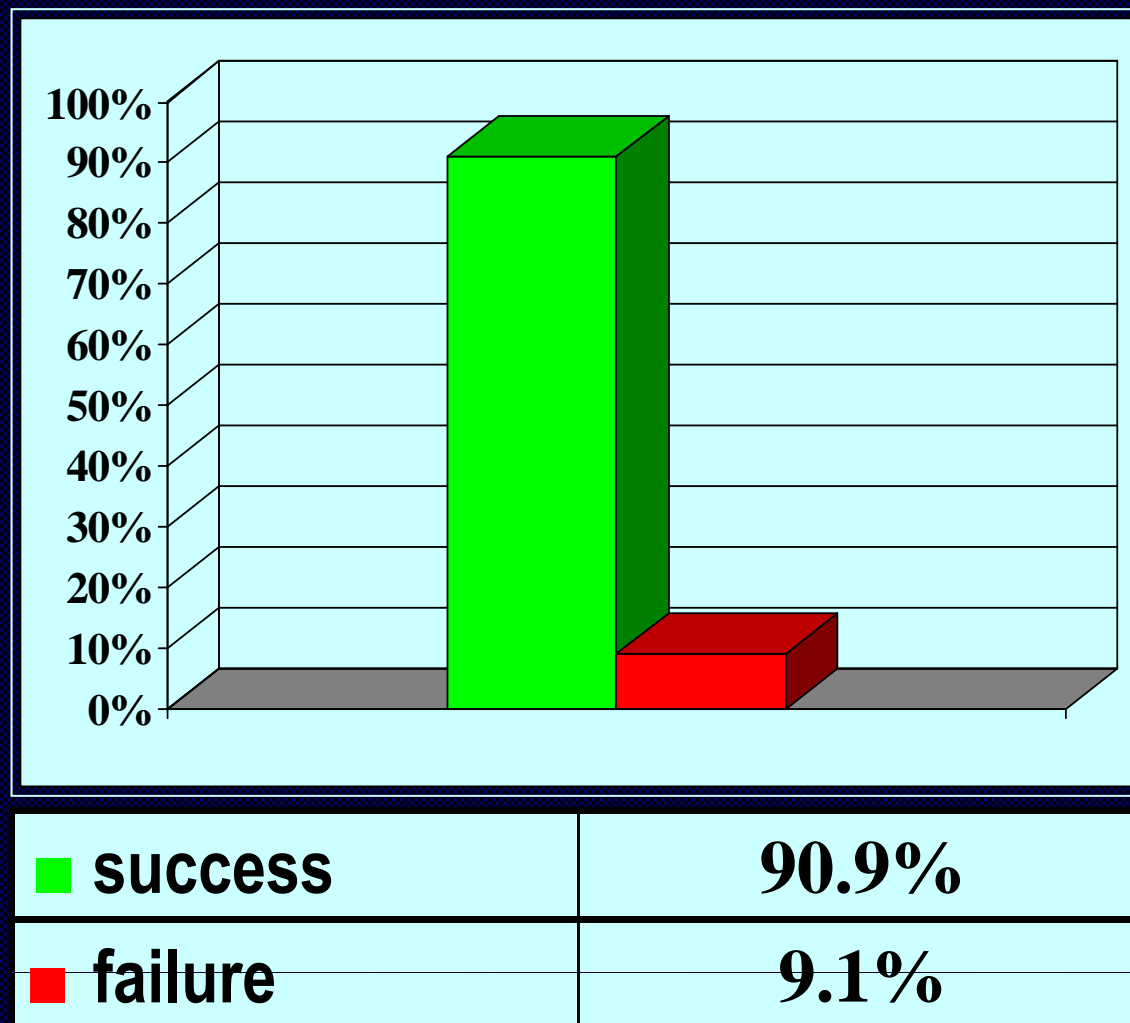
- ventral onlay (BM)
- dorsal onlay (BM)
- lateral onlay (BM)
- circumferential substitution onlay (BM)
- dorsal onlay (skin)



End-to-end anastomosis



Results of 165 end-to-end anastomosis

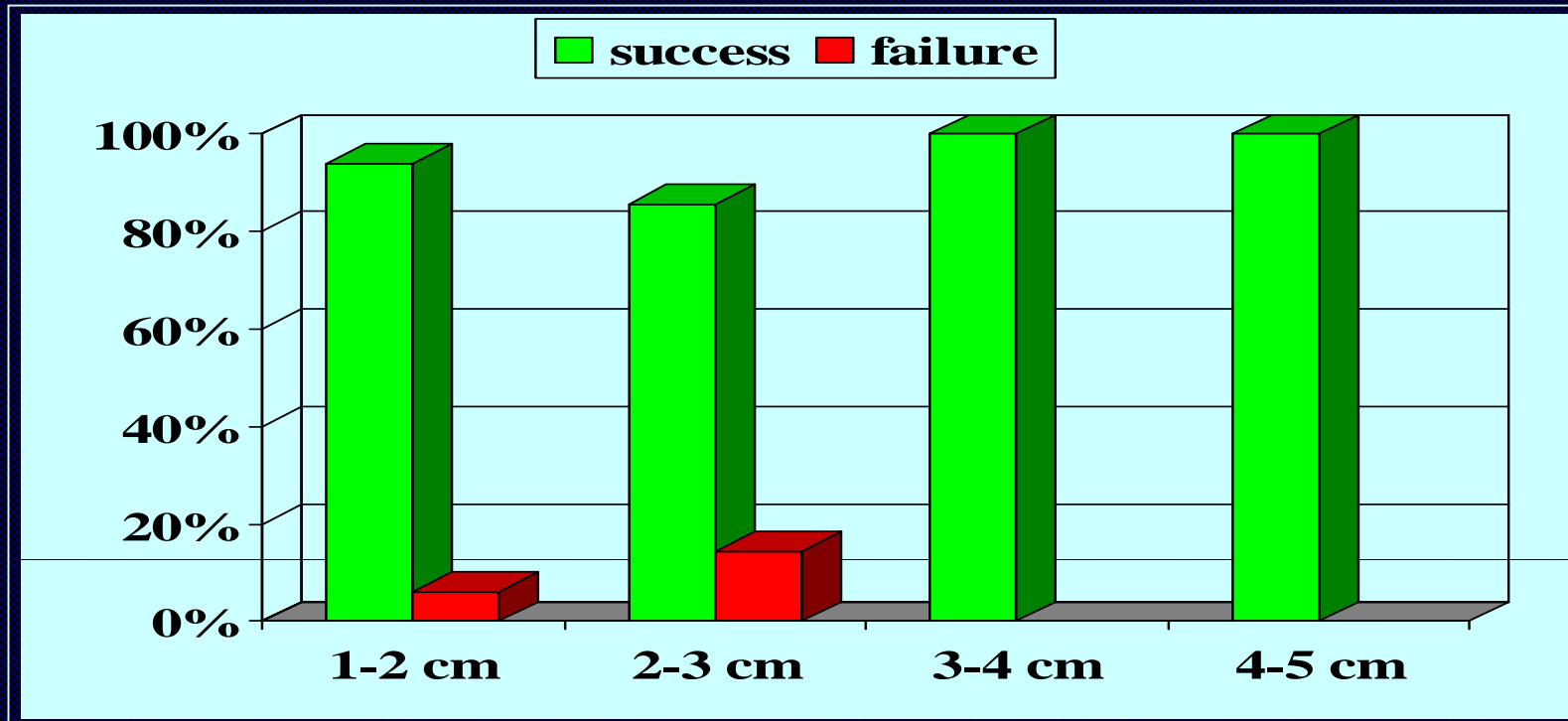


Outcome according to the patient age

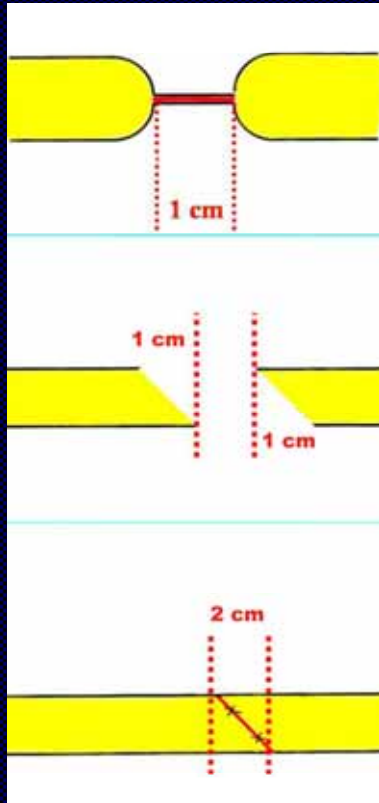


	0-49 years	50-69 years	> 70 years
■ success	91%	86.4%	100%
■ failure	9%	13.4%	

Outcome according to the 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

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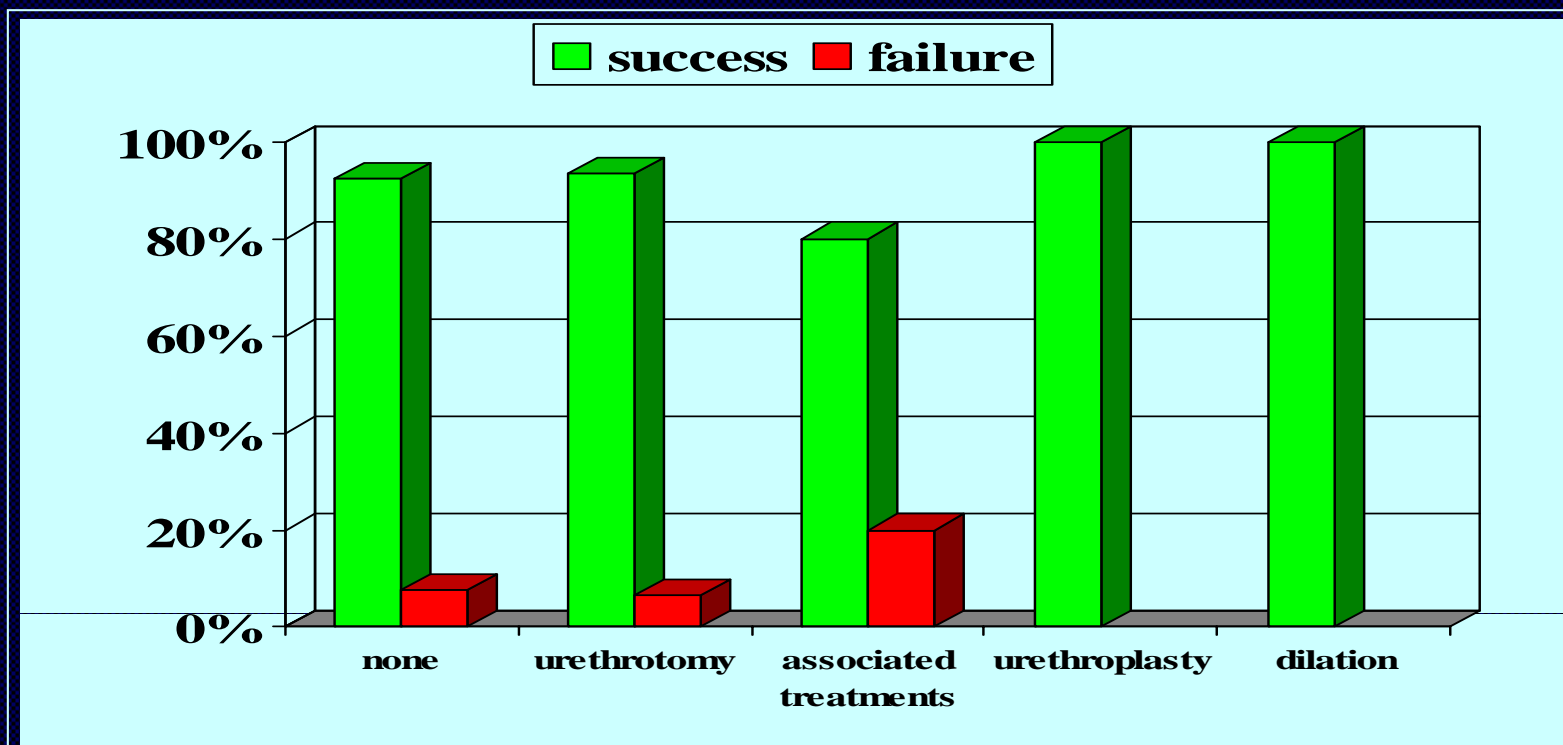


**Urethral reconstructability is proportional to the
length and elasticity of the distal urethra**

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%

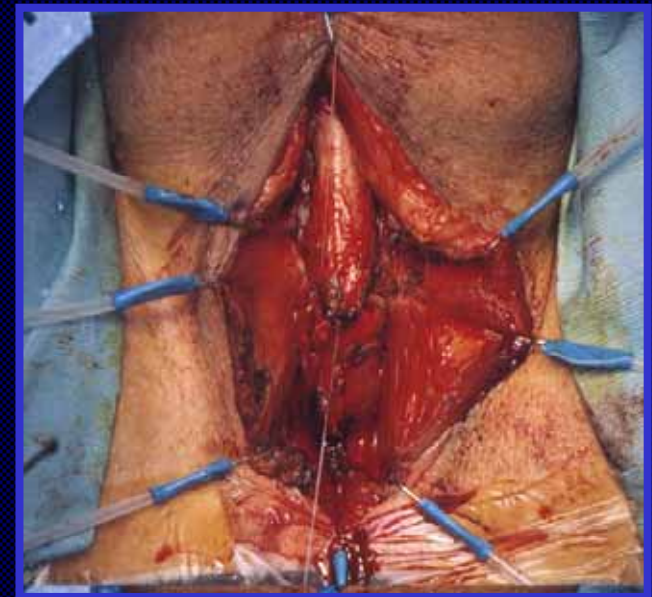
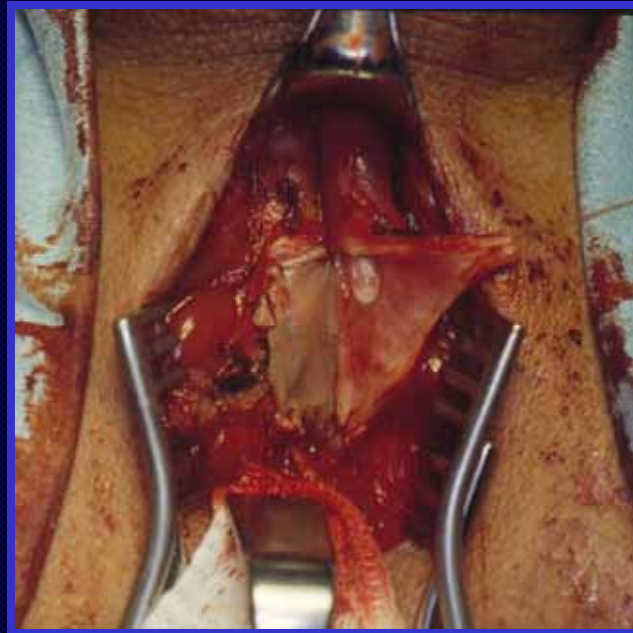
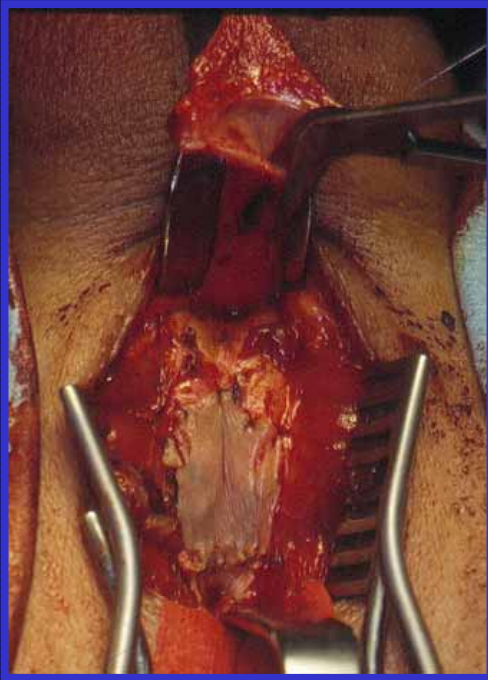
Outcome according to the previous treatments



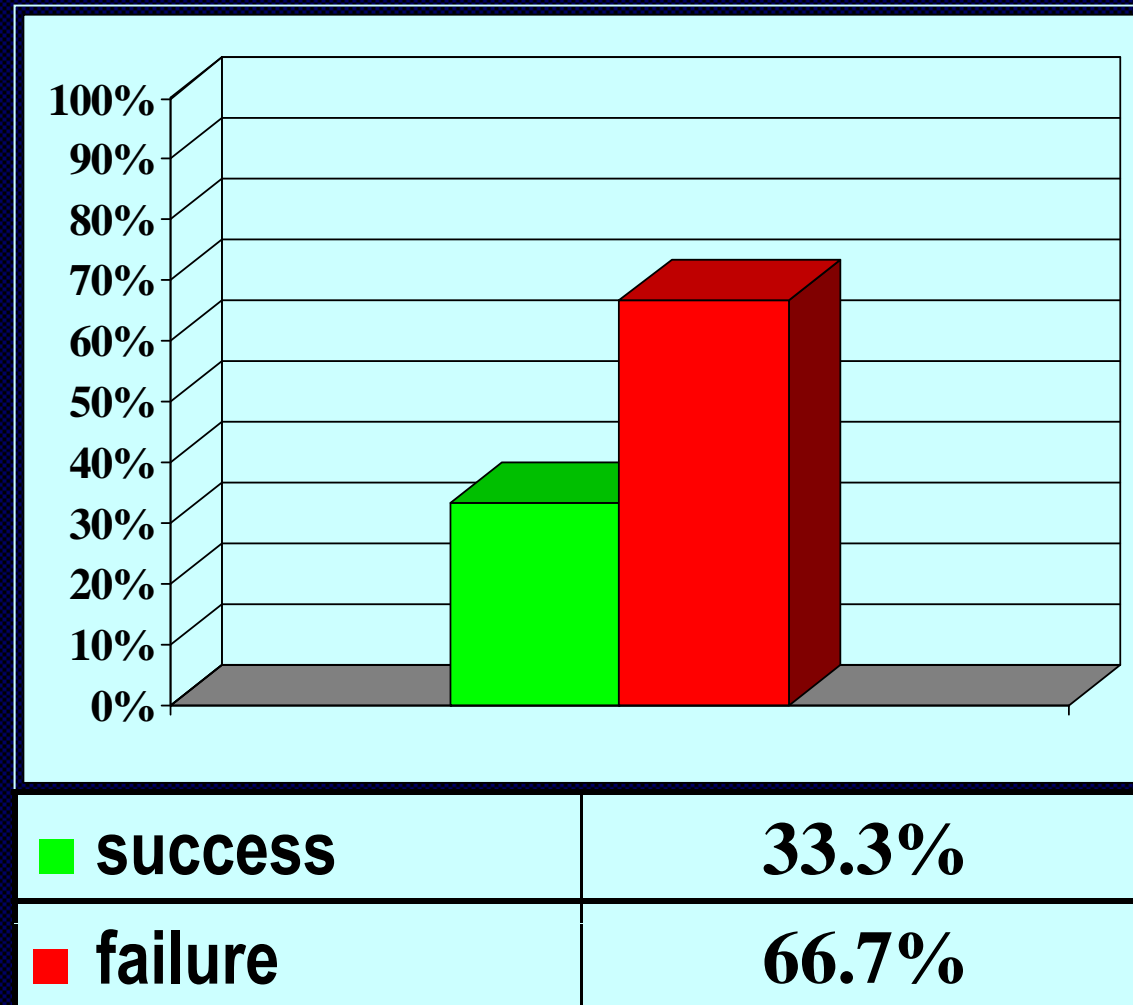
	none	urethrotomy	associated treatments	urethroplasty	dilation
■ success	92.4%	93.4%	80%	100%	100%
■ failure	7.6%	6.6%	20%		



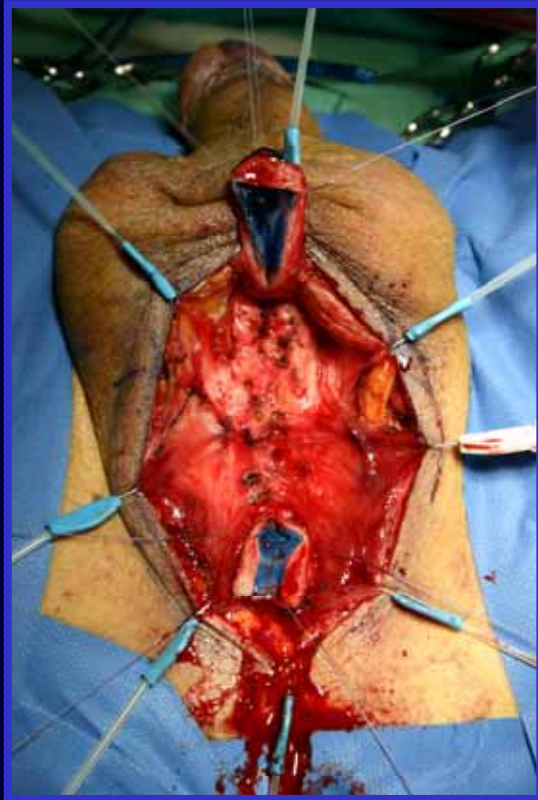
Augmented anastomotic repair using dorsal skin graft



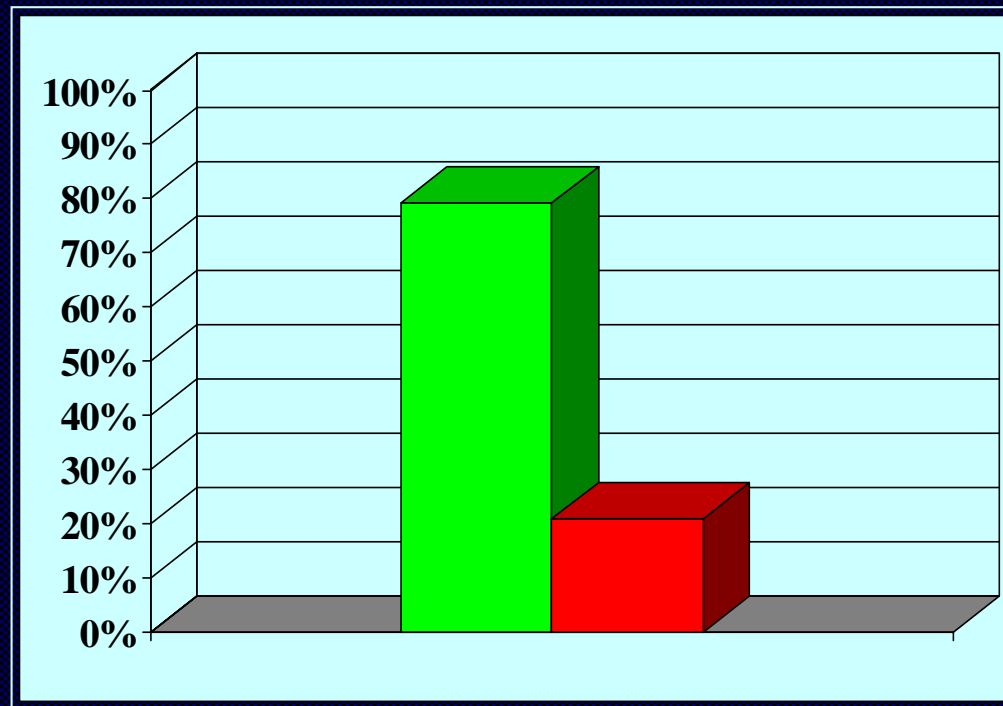
Results of 9 augmented anastomotic repair using dorsal skin graft



Augmented anastomotic repair using dorsal buccal mucosal graft



Results of 24 augmented anastomotic repair using dorsal buccal mucosal graft



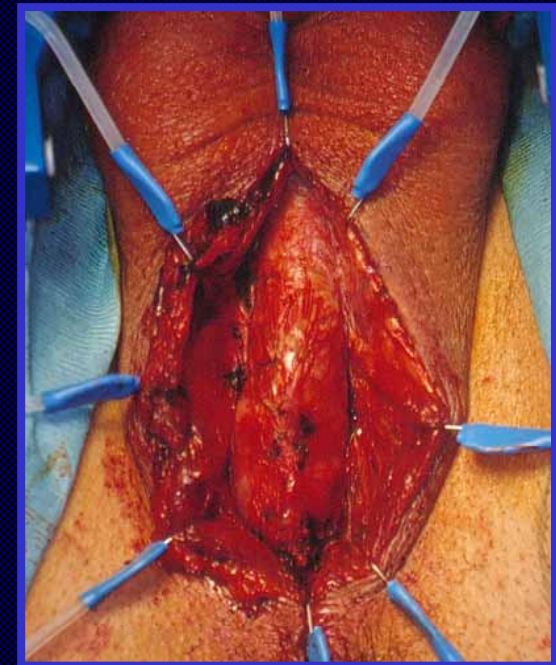
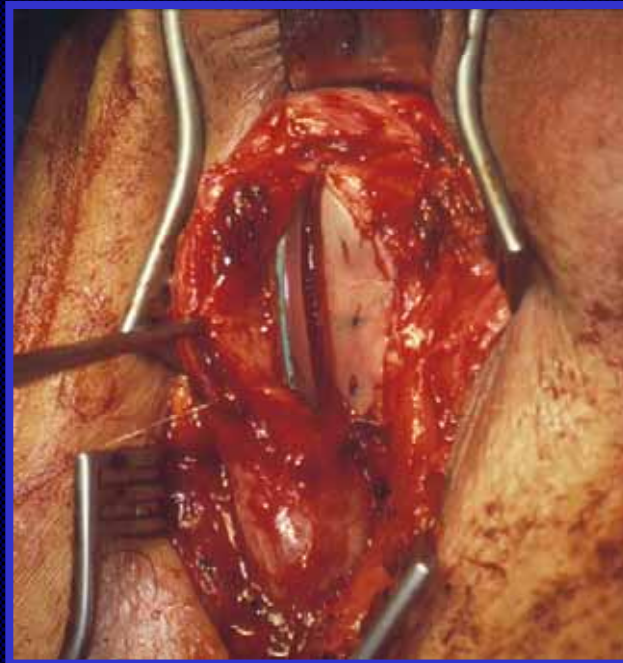
■ success

79.2%

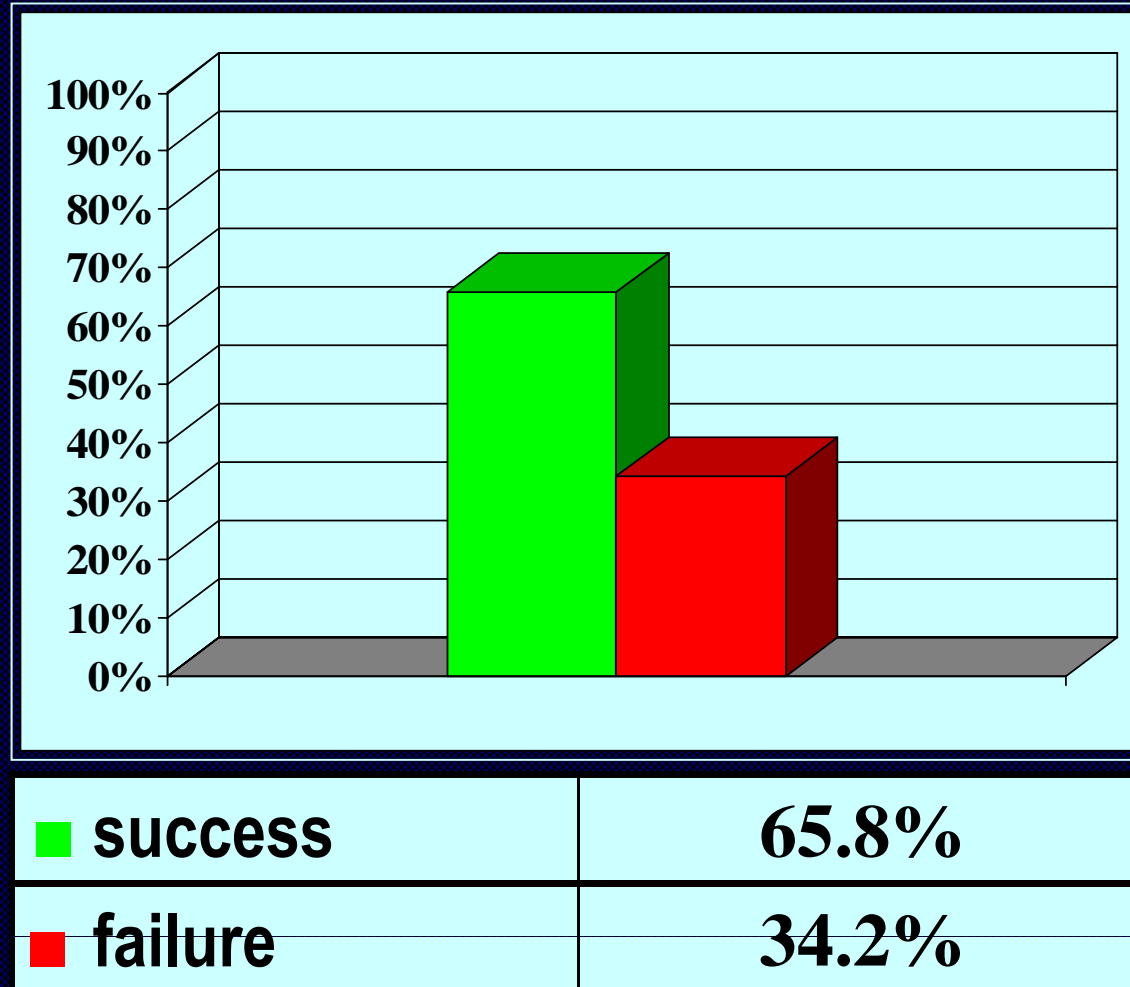
■ failure

20.8%

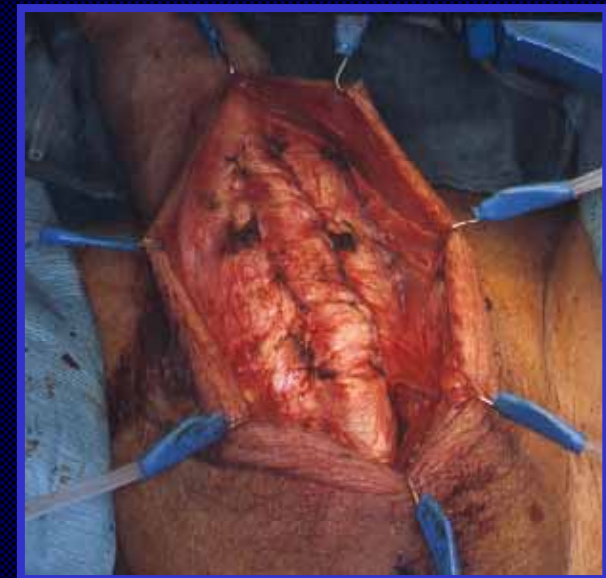
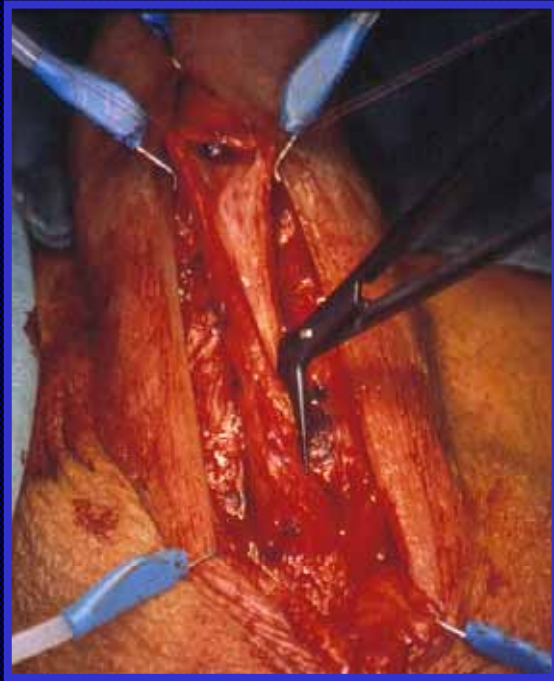
Dorsal skin onlay graft urethroplasty



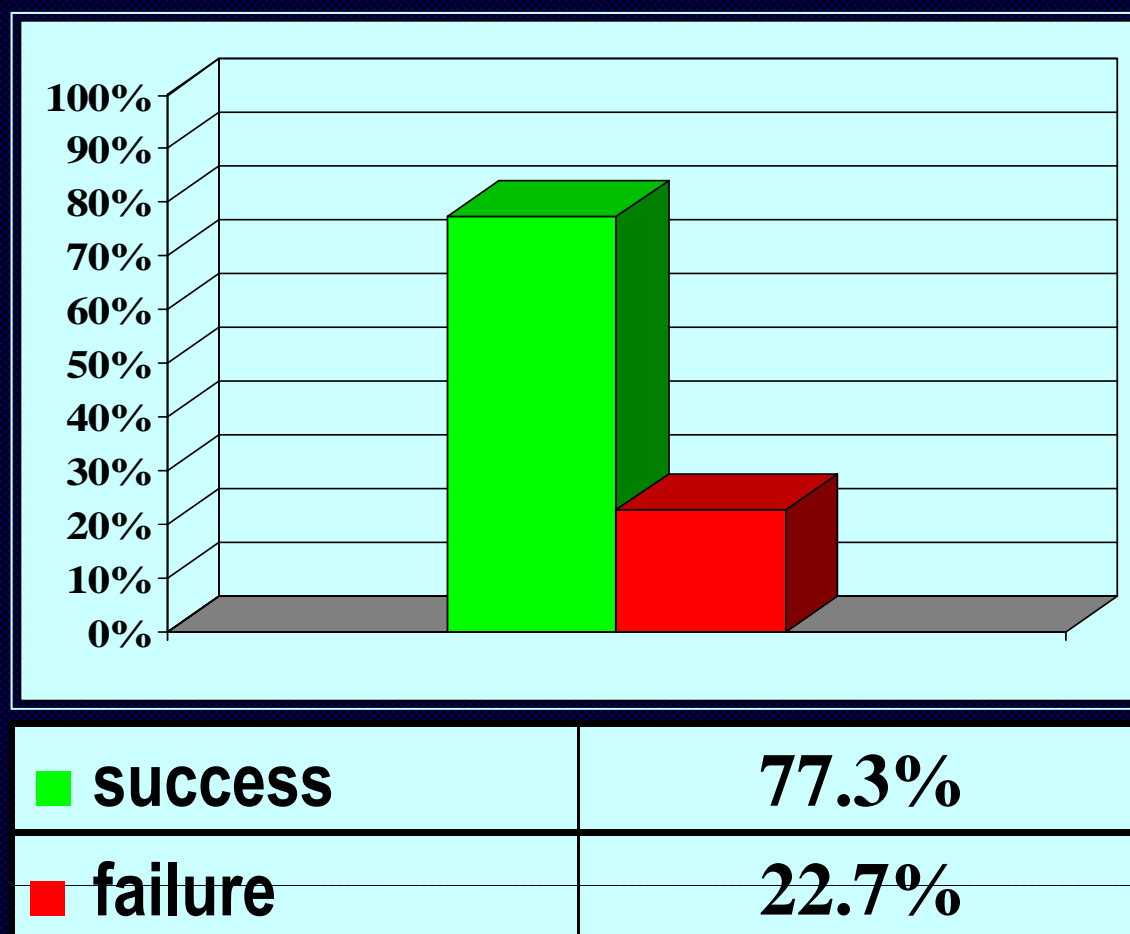
Results of 38 dorsal skin onlay graft urethroplasty



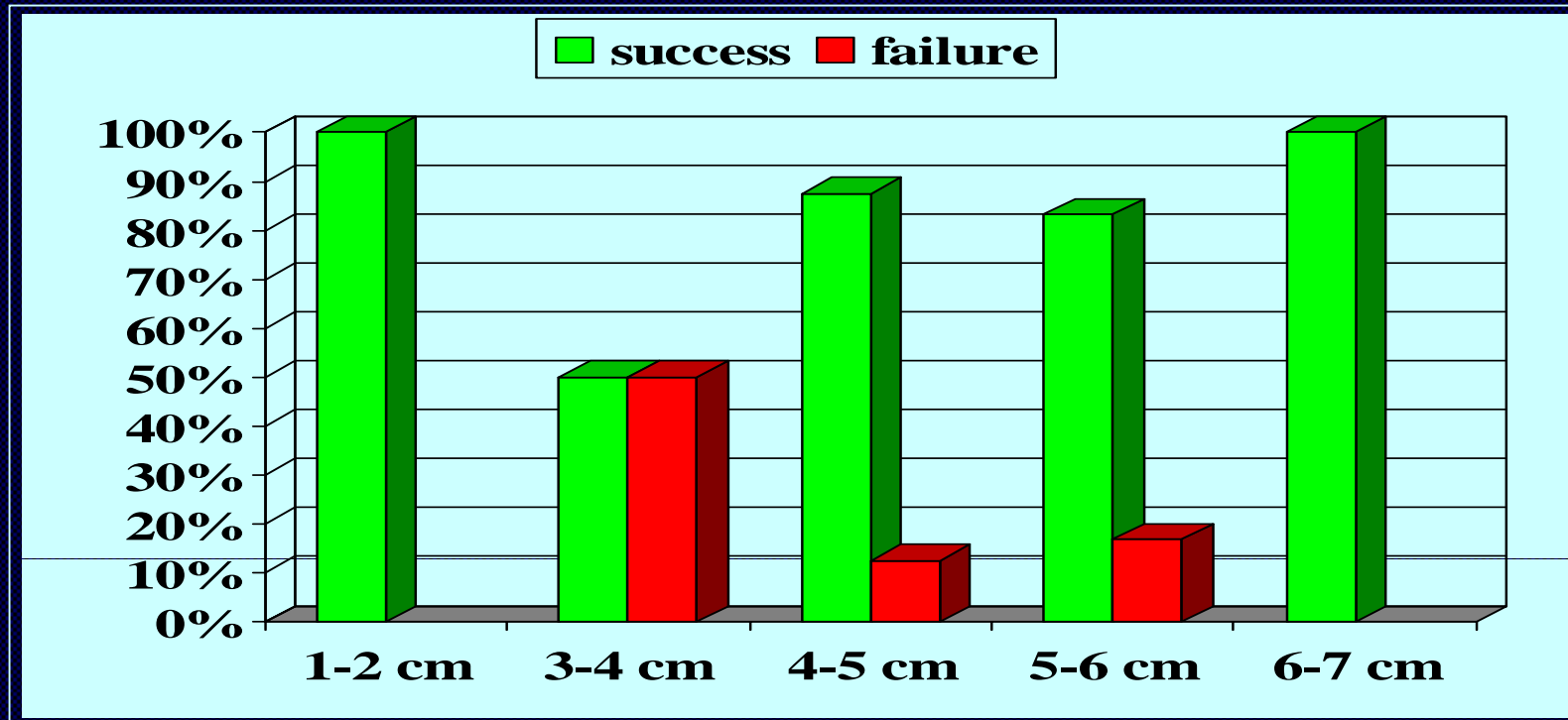
Dorsal buccal mucosal onlay graft urethroplasty



Results of 22 dorsal buccal mucosal onlay graft urethroplasty

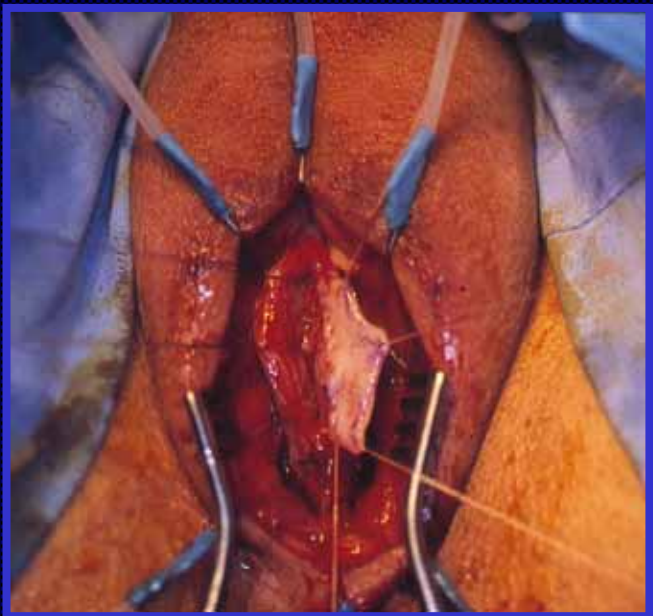


Outcome according to the stricture length

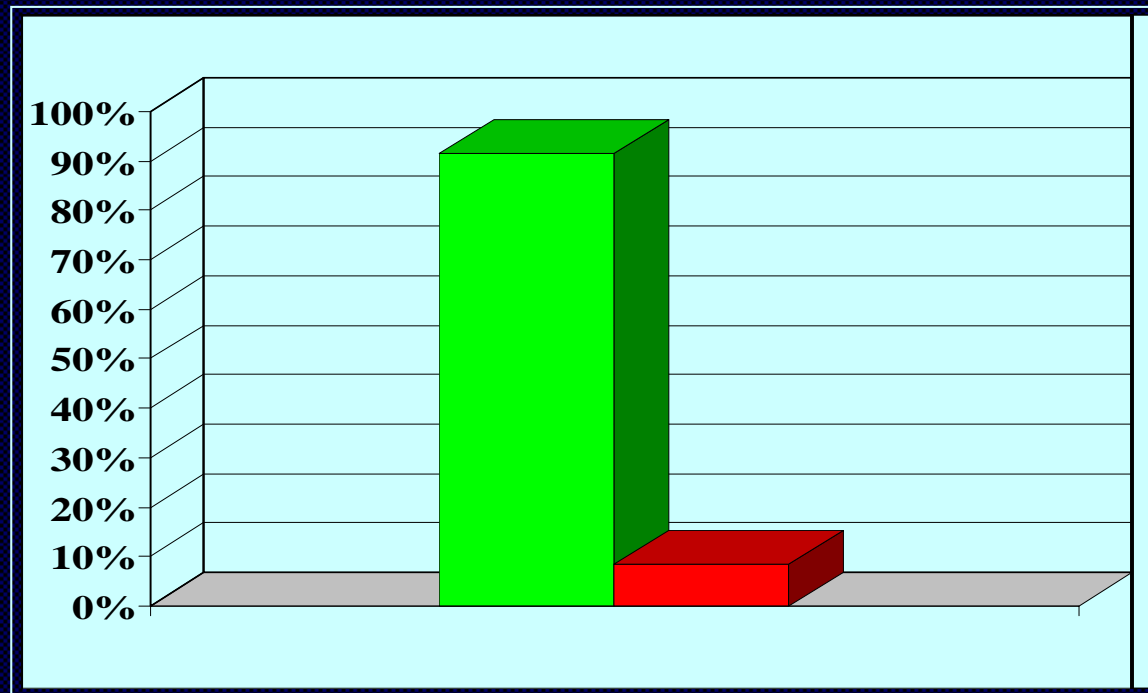


	1-2 cm	3-4 cm	4-5 cm	5-6 cm	6-7 cm
■ success	100%	50%	87.5%	83.3%	100%
■ failure		50%	12.5%	16.7%	

Ventral buccal mucosal onlay graft urethroplasty



Results of 93 ventral buccal mucosal onlay graft urethroplasties



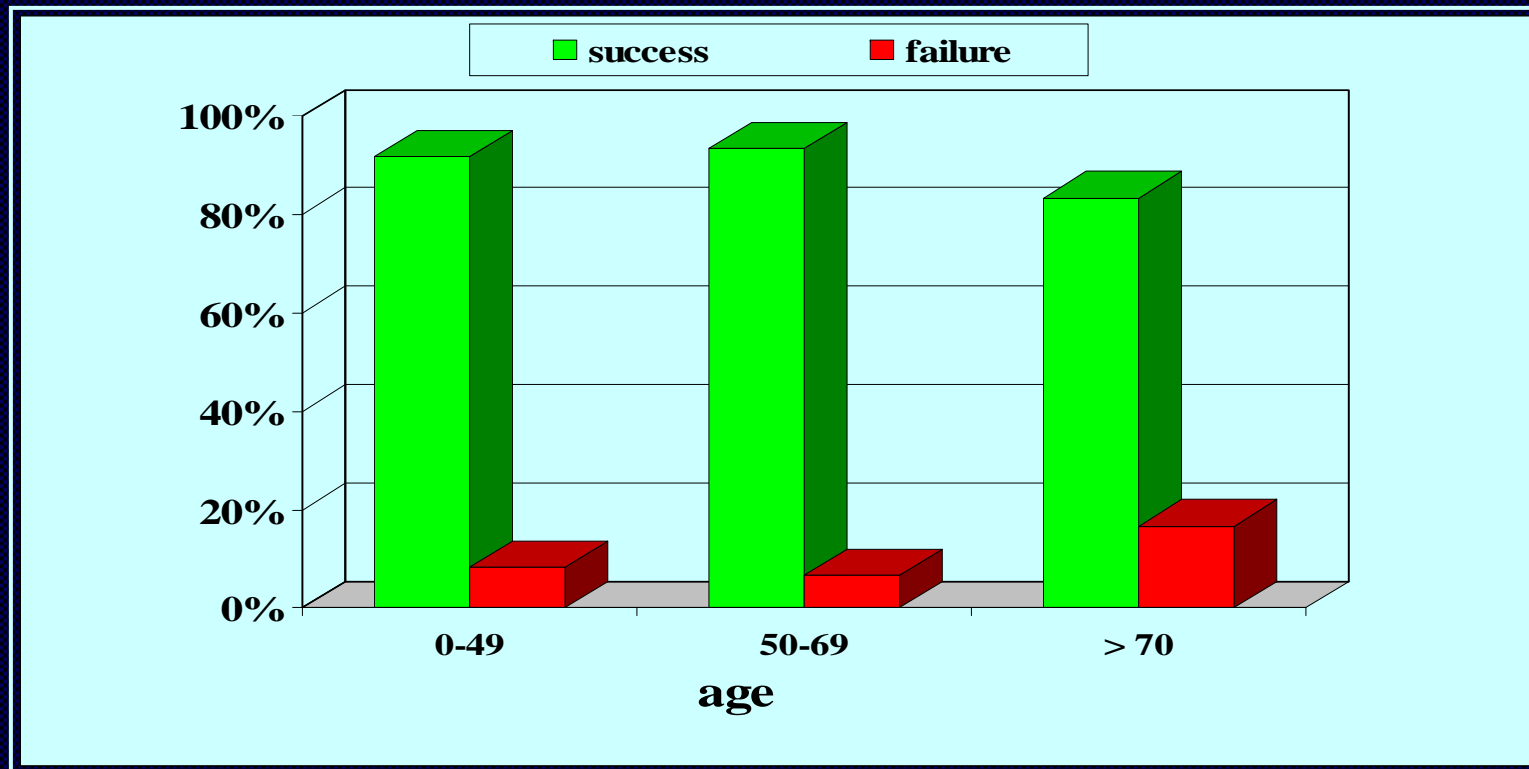
■ success

91.4%

■ failure

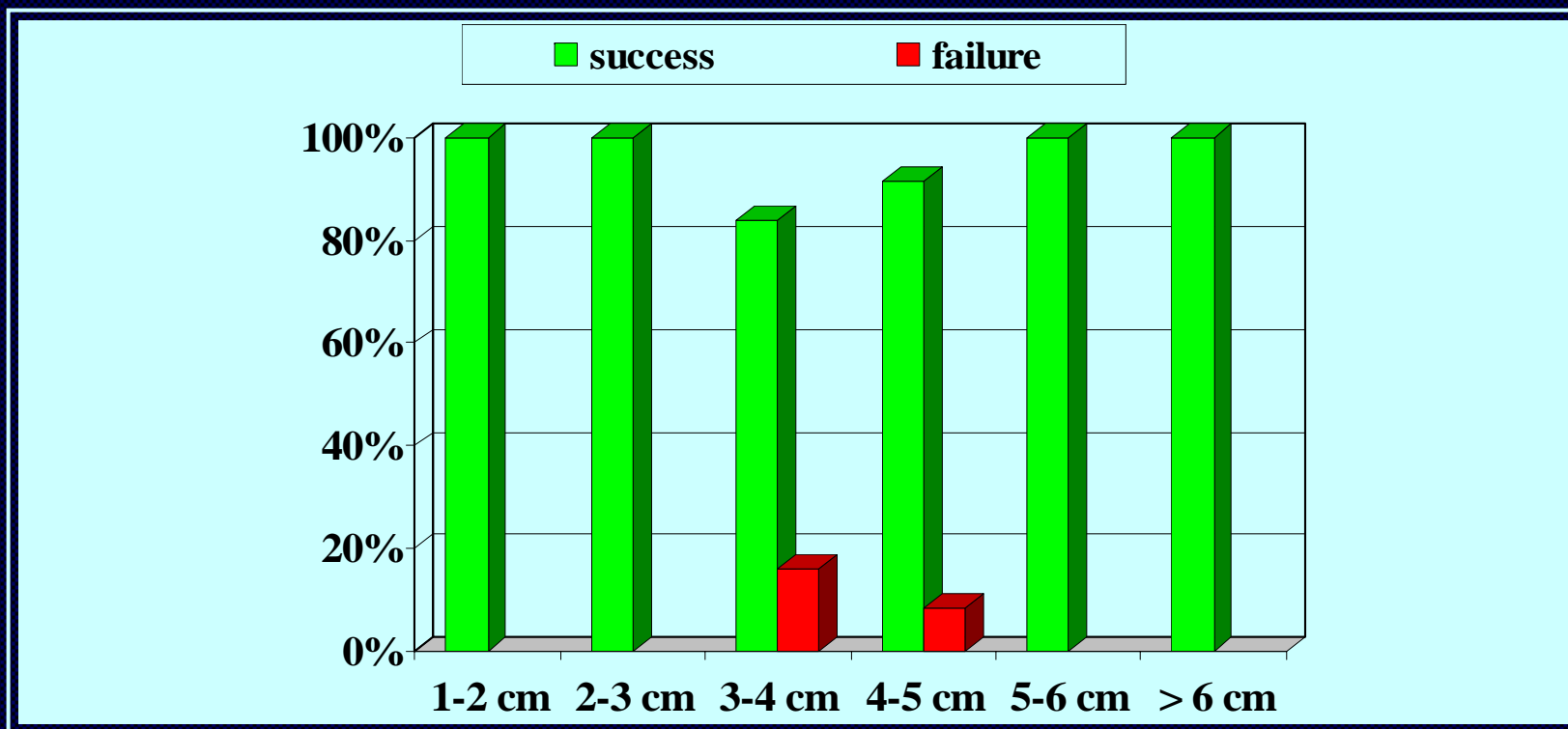
8.6%

Outcome according to the 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 according to the stricture length

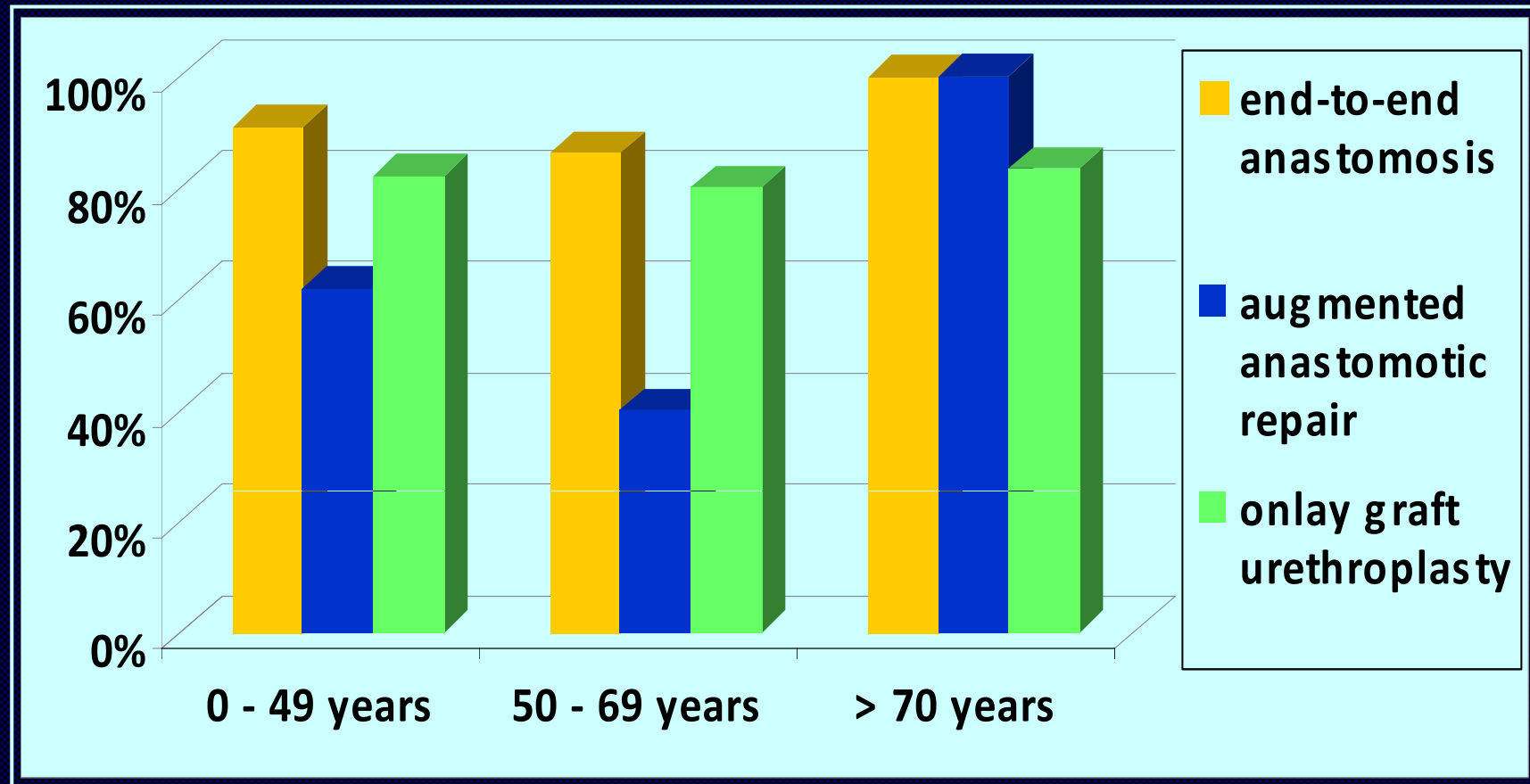


	1-2 cm	2-3 cm	3-4 cm	4-5 cm	5-6 cm	> 6 cm
■ success	100%	100%	84%	91.5%	100%	100%
■ failure			16%	8.5%		

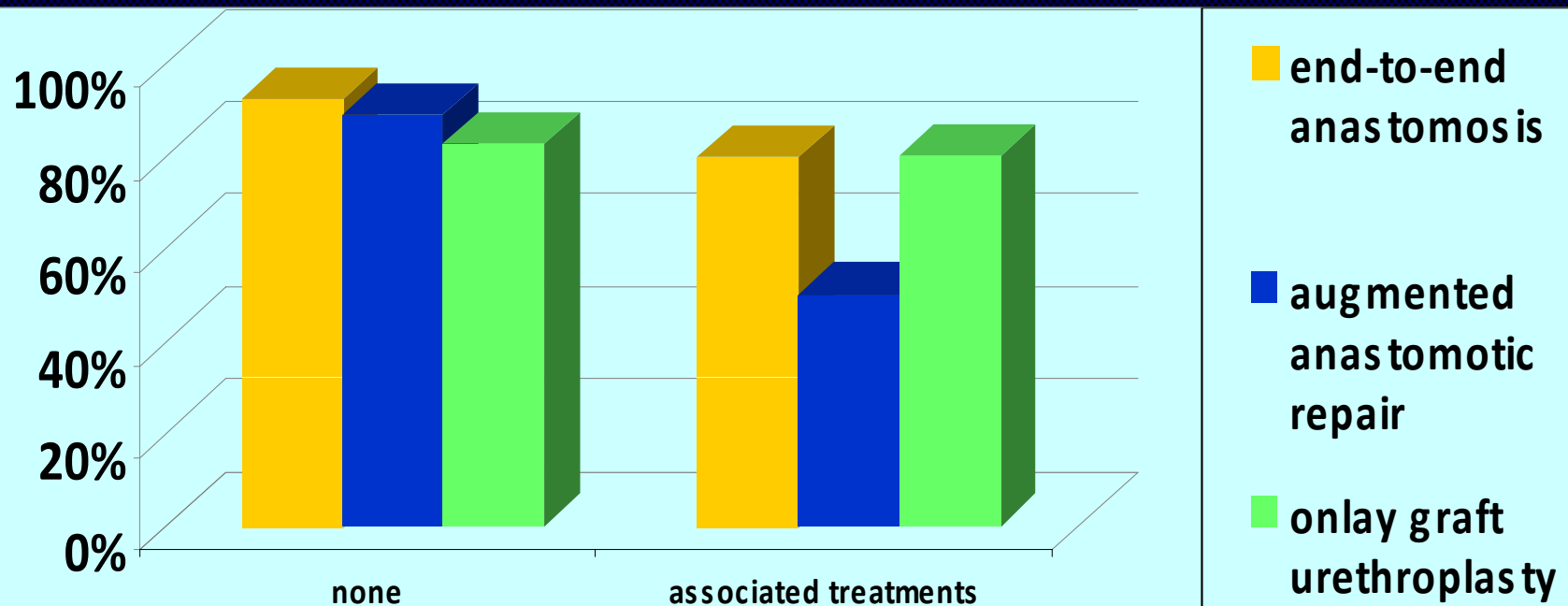
Comparative success rate of 375 one-stage bulbar urethroplasties

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 according to the 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

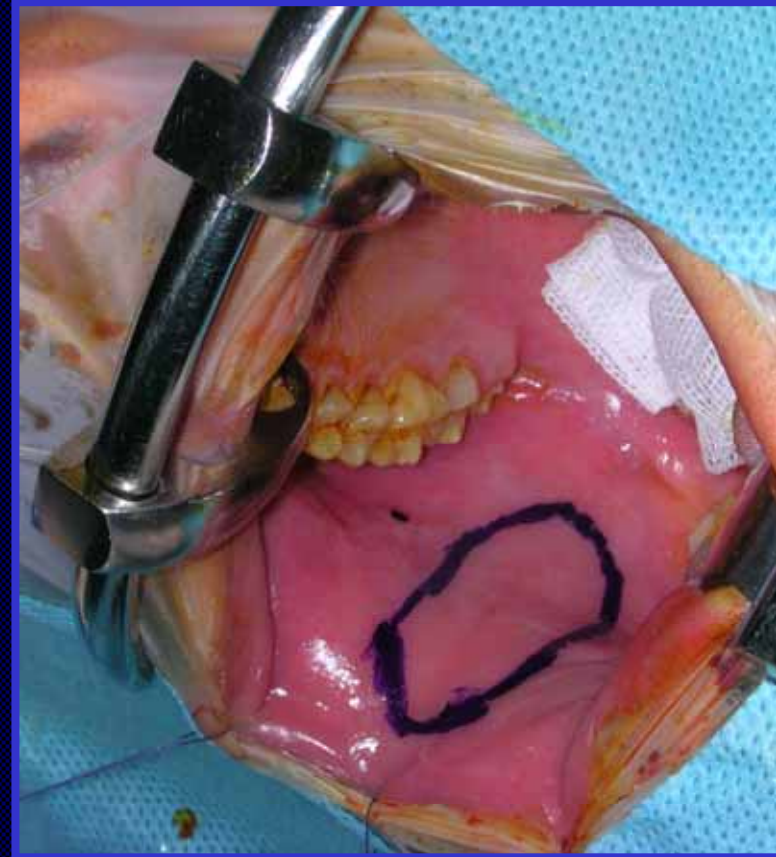
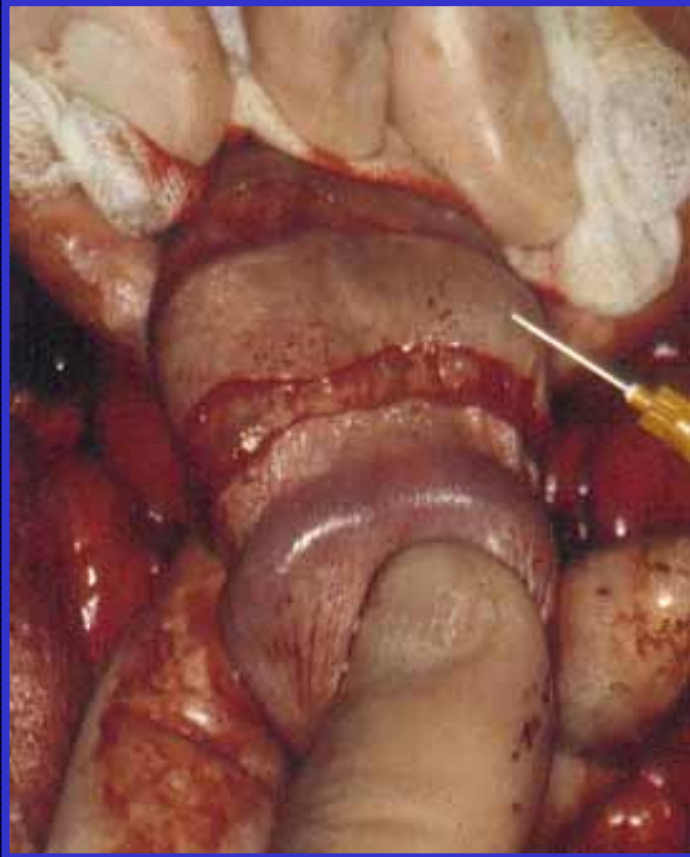
type of repair	success rate
dorsal buccal mucosal graft	79.2%
dorsal skin graft	33.3%
ventral buccal mucosal graft	28.6%

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%

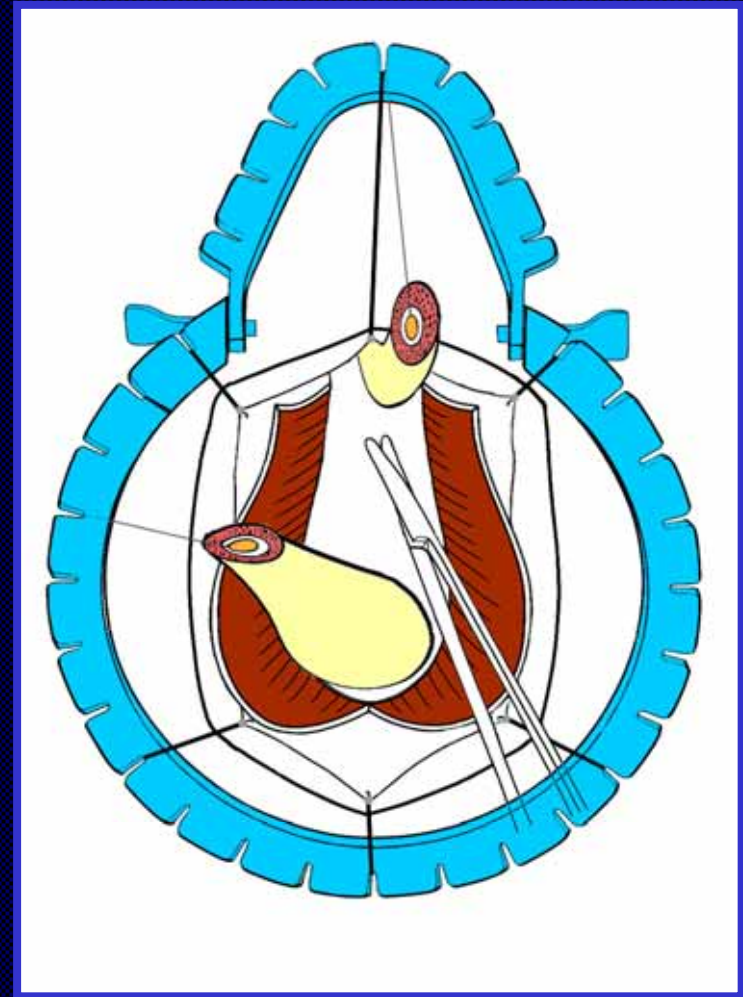
Question...

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



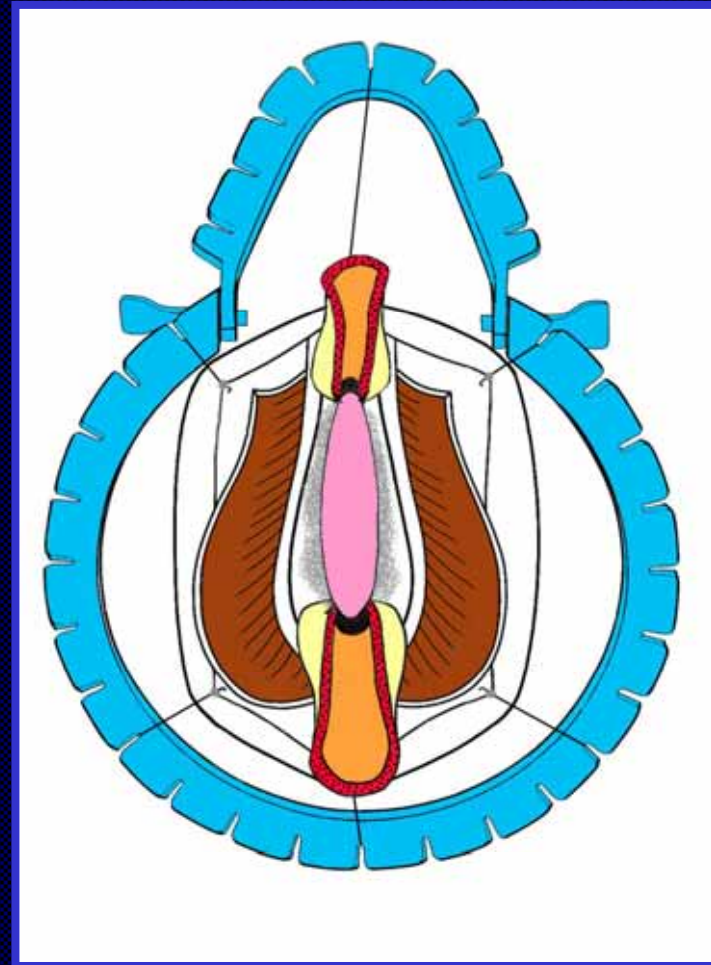
End-to-end anastomosis

End-to-end anastomosis still represents the best technique for repair of bulbar urethra stricture of various etiologies, various length and in patient of various ages



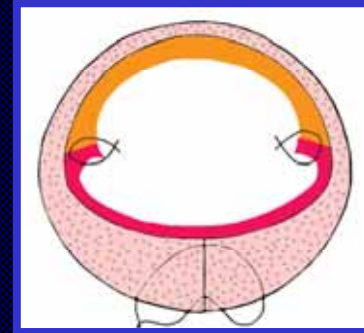
Augmented anastomotic repair

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

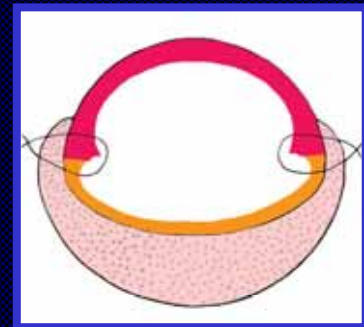


Onlay graft urethroplasty

- 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 onlay graft repair



ventral graft



dorsal graft

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 !

