

# CENTER FOR RECONSTRUCTIVE URETHRAL SURGERY



**GUIDO BARBAGLI, M.D.**  
**Arezzo - Italy**

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Websites: [www.uretra.it](http://www.uretra.it)  
[www.urethralcenter.it](http://www.urethralcenter.it)

# **History and Evolution of the Urethral Surgery**

**“ Everything that is happening now has happened before: there is nothing new under the sun “.**

**BIBLE - Ecclesiastes 1:9**



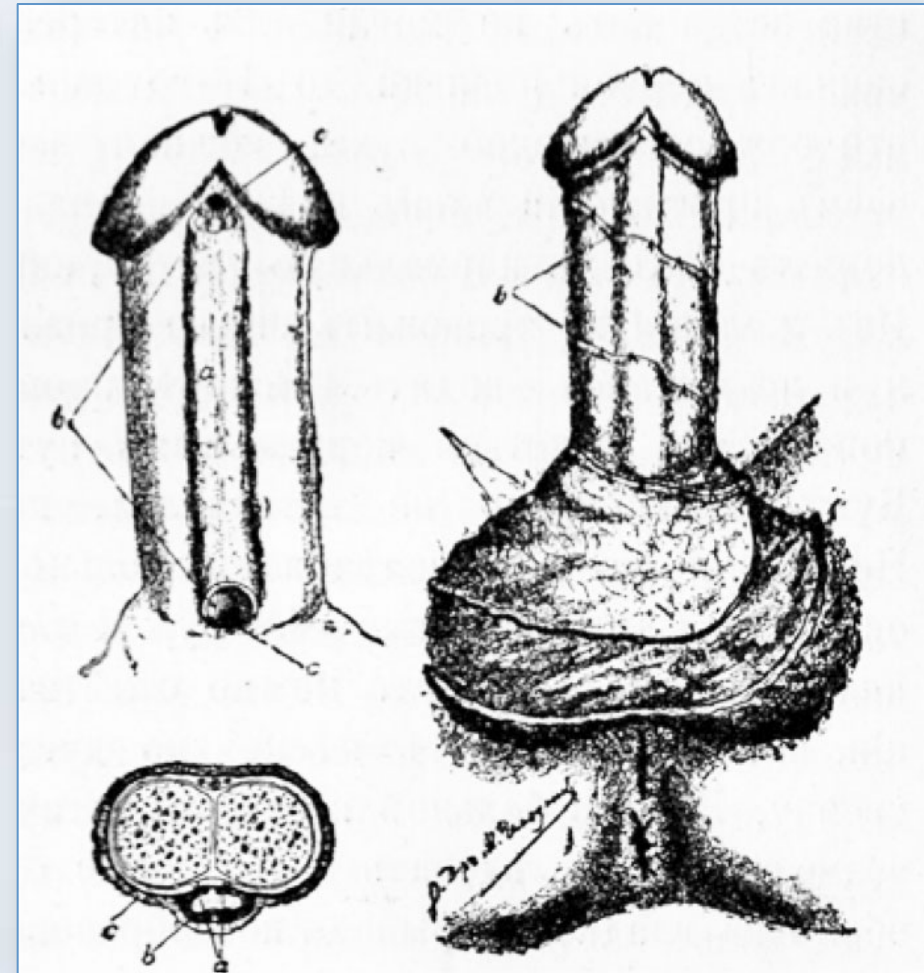
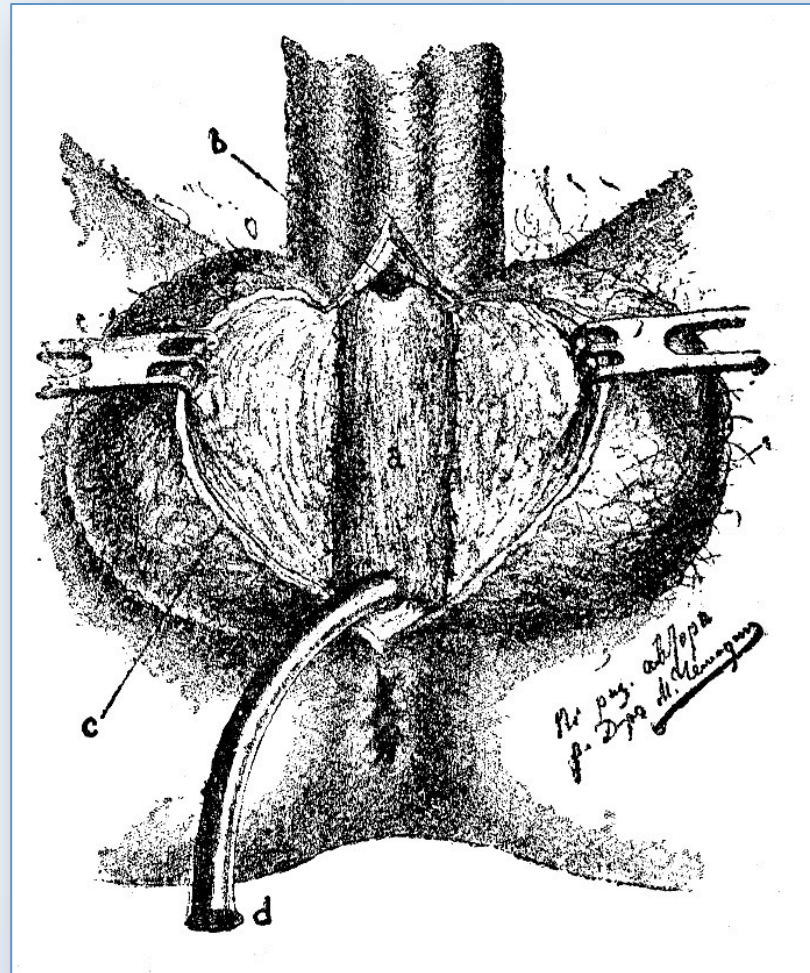
# The most important ancestor of the modern urethral surgery



**Kirill Mikhailovich Sapezhko (1857 – 1928)**  
**Kiev – Odessa - Ukraine**



1890 - 1891 - 1893



Chirurgicheskaya letopis; 1894; 4(5): 84-92



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## Kirill Mikhailovich Sapezhko



*“I am deeply convinced that tissue transposition in the future will be widely used and will become a fruitful acquisition in surgery”*

**Chirurgicheskaya letopis; 1894; 4(5): 84-92**



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# 51 years later !

84

THE BRITISH JOURNAL OF SURGERY

## A ONE-STAGE OPERATION FOR HYPOSPADIAS

By GRAHAM HUMBY

E.M.S. SURGEON AND SURGICAL ASSISTANT TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET

WITH A FOREWORD BY

T. TWISTINGTON HIGGINS

SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET

**Br J Surg 1941; 29: 84-92**



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# 102 years later !

## THE BUCCAL MUCOSAL GRAFT FOR URETHRAL RECONSTRUCTION: A PRELIMINARY REPORT

RAINER A. BÜRGER, STEFAN C. MÜLLER, HAMADA EL-DAMANHOURY, ALEXANDER TSCHAKALOFF, HUBERTUS RIEDMILLER AND R. HOHENFELLNER

*From the Department of Urology and Division of Oral and Maxillofacial Surgery, Medical School, Johannes Gutenberg University, Mainz, Federal Republic of Germany*

**J Urol 1992 (March); 147: 662-664**

## AUTOLOGOUS BUCCAL MUCOSA GRAFT FOR HYPOSPADIAS REPAIR: AN INITIAL REPORT

ANTONIO DESSANTI,\* WAIFRO RIGAMONTI, VITTORIO MERULLA, DIEGO FALCHETTI AND GUIDO CACCIA

*From the Department of Pediatric Surgery, University of Brescia, Children's Hospital Umberto I, Brescia, Italy*

**J Urol 1992 (April); 147: 1081-1084**



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# Two-stage penile urethroplasty



**Bengt Johanson**  
**Stockholm -Sweden**



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ACTA CHIRURGICA SCANDINAVICA

SUPPLEMENTUM 176

FROM THE DEPARTMENT OF SURGERY (HEAD: PROFESSOR J. HELLSTRÖM),  
KAROLINSKA SJUKHUSET AND THE DEPARTMENT OF HISTOLOGY (HEAD:  
PROFESSOR G. HÄGGQVIST) KAROLINSKA INSTITUTET, STOCKHOLM, SWEDEN.

RECONSTRUCTION  
OF THE MALE URETHRA IN STRICTURES

*Application of the Buried Intact*

*Epithelium Technic*

By

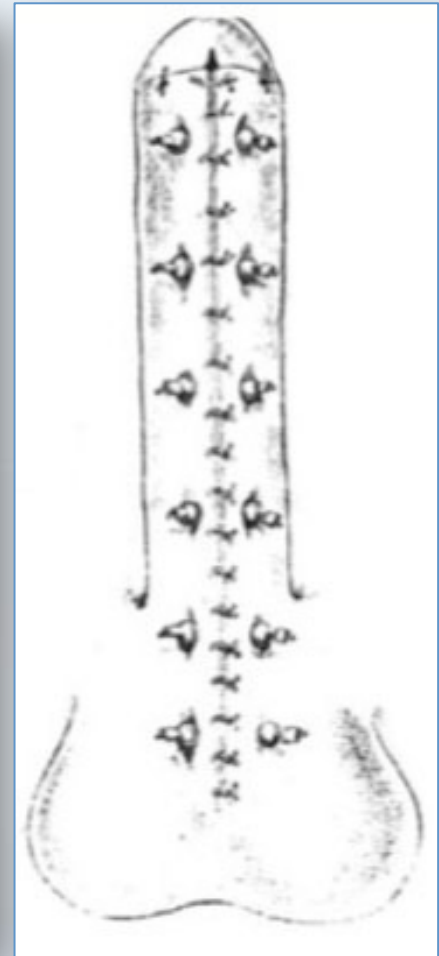
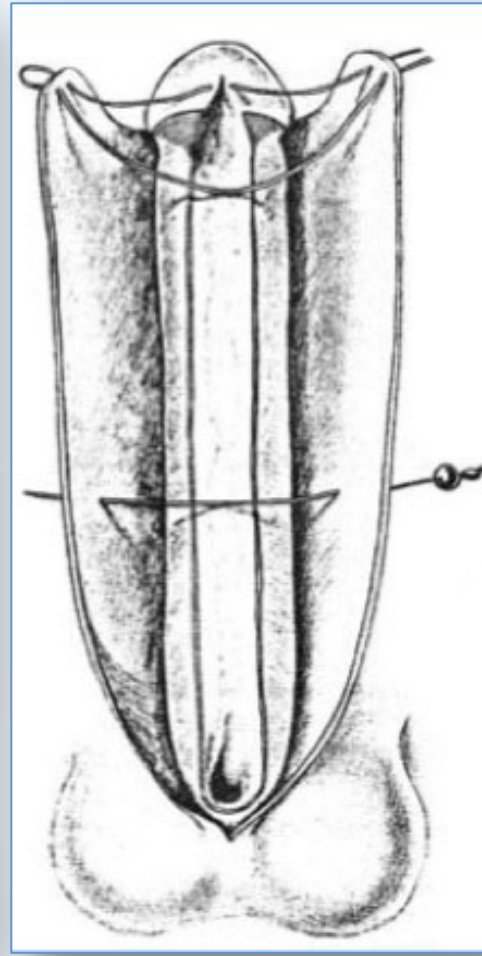
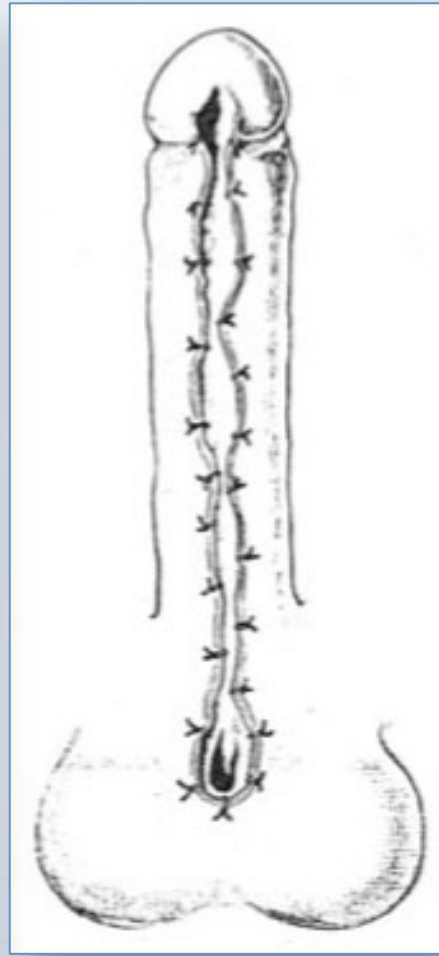
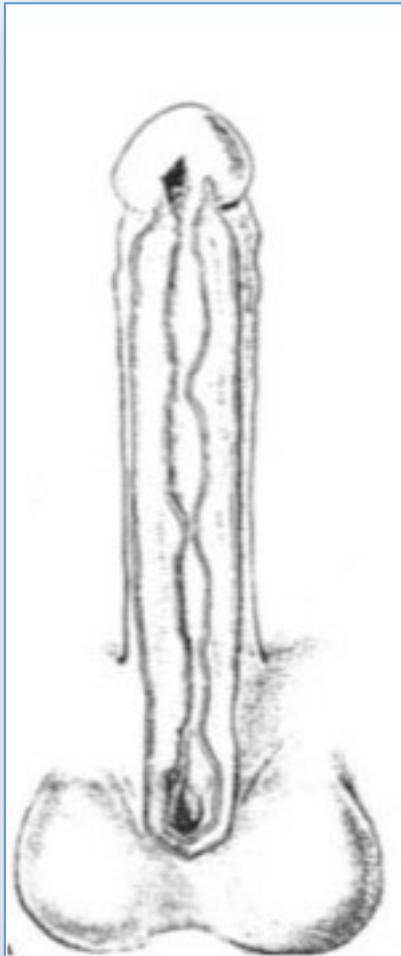
BENGT JOHANSON

**Acta Chir Scand, 1953: 176; 5-89**



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# One-stage urethroplasty with skin graft



**Charles J. Devine Jr and Charles J. Devine Sr  
Norfolk - USA**

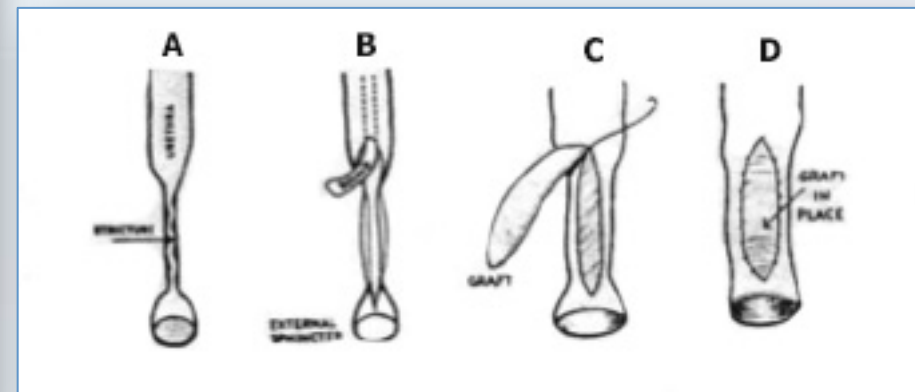
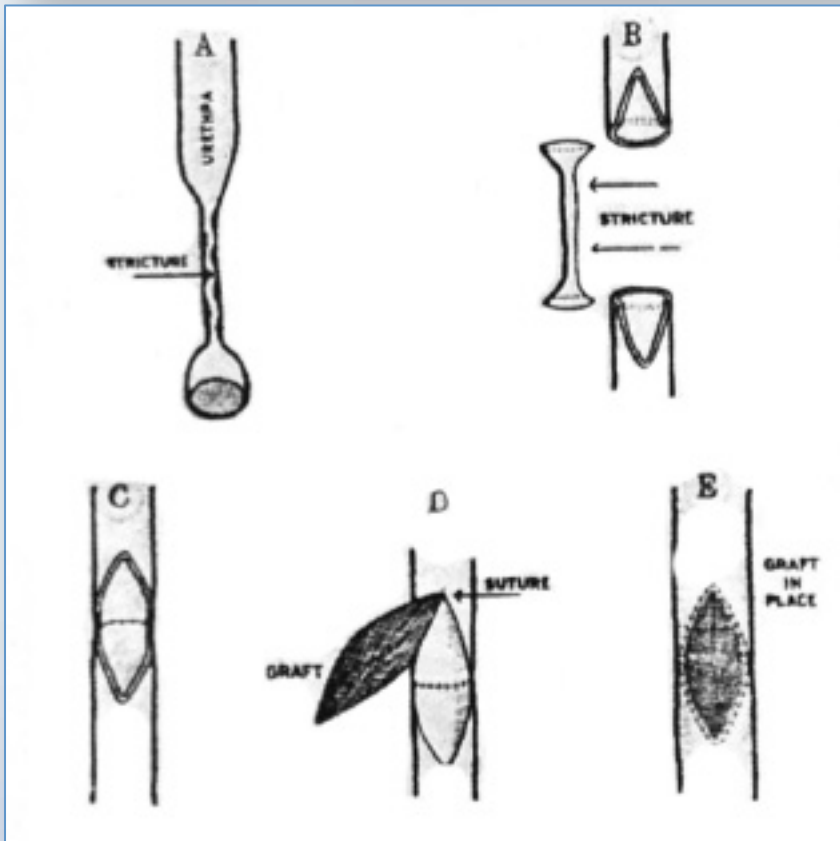


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# USE OF FULL THICKNESS SKIN GRAFTS IN REPAIR OF URETHRAL STRICTURES

PATRICK C. DEVINE, CHARLES E. HORTON, C. J. DEVINE, SR.,  
CHARLES J. DEVINE, JR., HUGH H. CRAWFORD AND  
JEROME E. ADAMSON



**J Urol 1963, 90: 67-71**



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# Omentoplasty for posterior urethroplasty



**Richard T. Turner-Warwick**  
**London - UK**



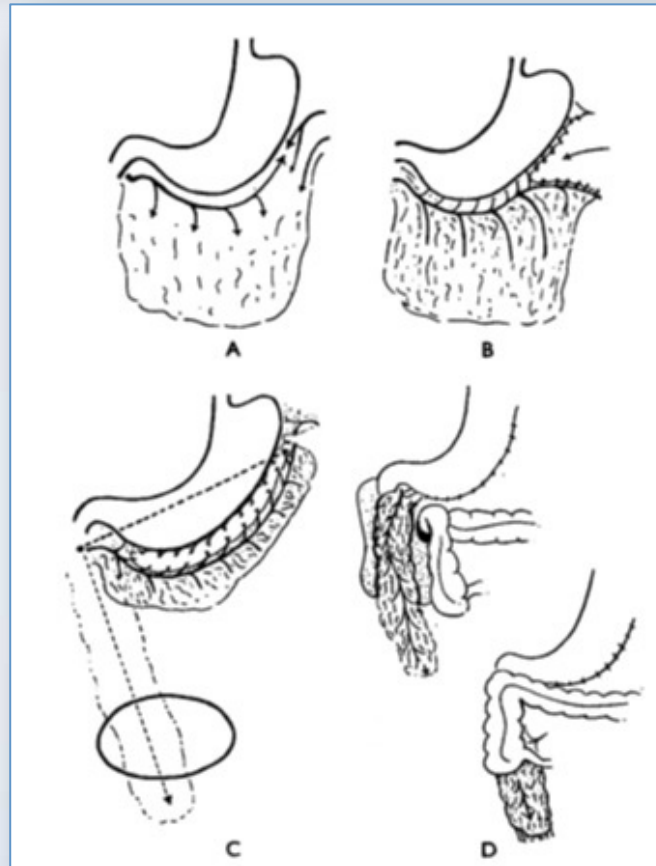
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# THE USE OF THE OMENTAL PEDICLE GRAFT IN THE REPAIR AND RECONSTRUCTION OF THE URINARY TRACT

By R. T. TURNER-WARWICK, E. J. C. WYNNE, AND M. HANDLEY-ASHKEN

THE MIDDLESEX HOSPITAL AND THE INSTITUTE OF UROLOGY, LONDON, AND THE PRINCESS MARGARET HOSPITAL, SWINDON



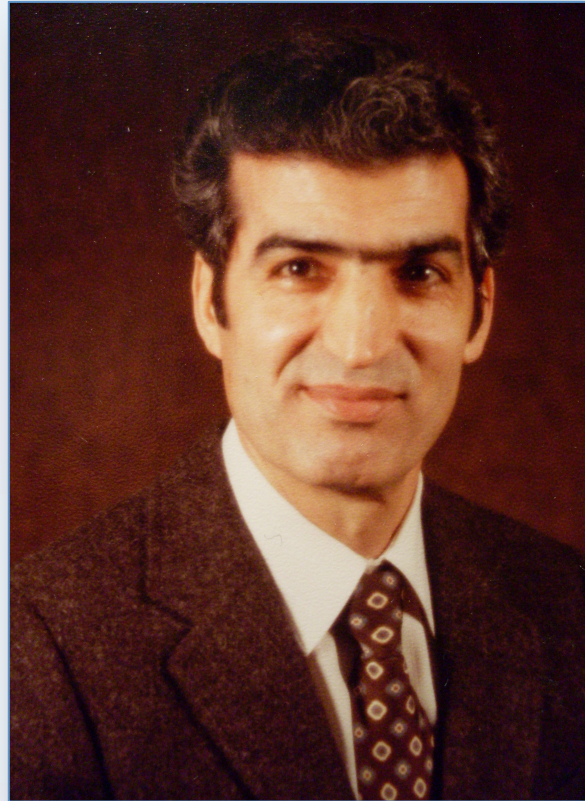
Br J Surg 1967, 54: 849-853



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# One-stage skin flap urethroplasty



**Ahmad Orandi**  
**Fergus Falls – Minnesota - USA**



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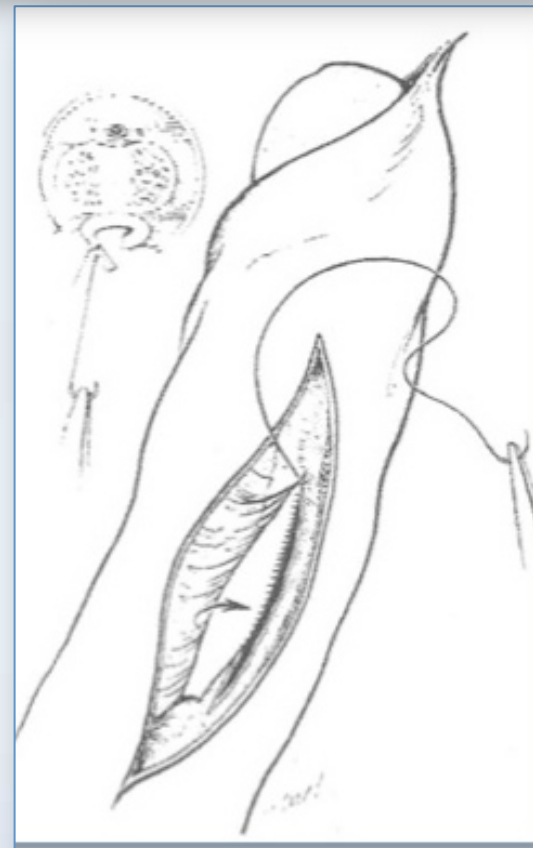
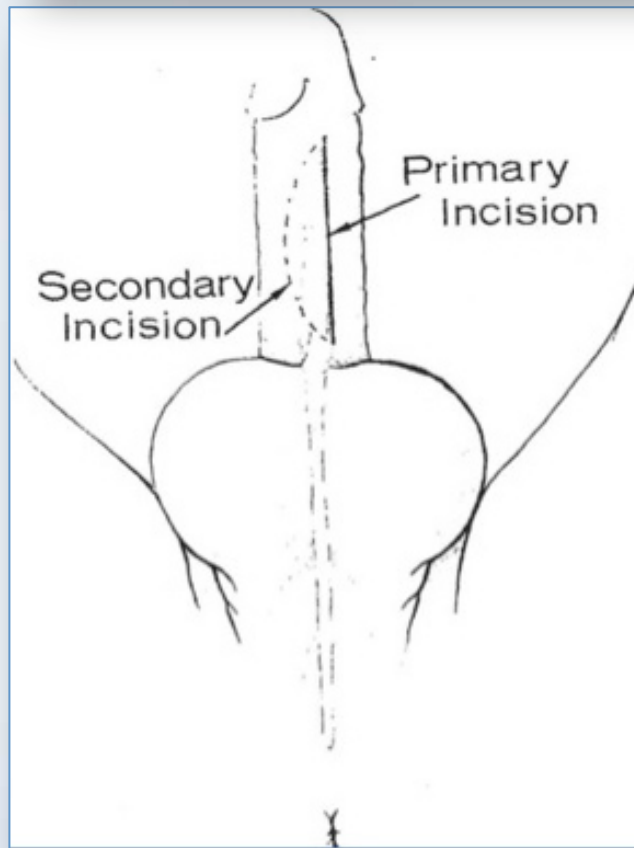
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[www.urethralcenter.it](http://www.urethralcenter.it)



# ONE-STAGE URETHROPLASTY<sup>1</sup>

By AHMAD ORANDI

*From The John W. Draper Research Laboratory. Fergus Falls, Minnesota, U.S.A.*



**Br J Urol 1968, 40: 717-719**



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# Two-stage urethroplasty



**J. Peter Blandy**  
**London - UK**



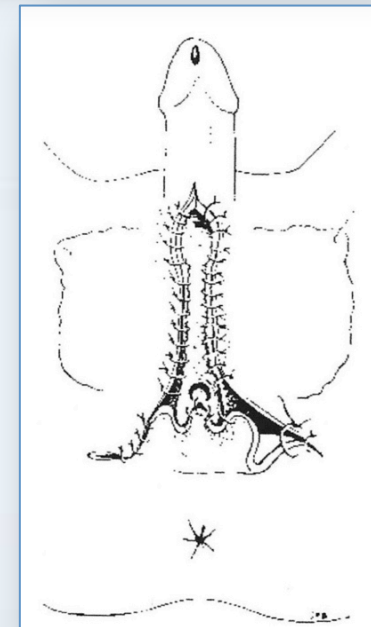
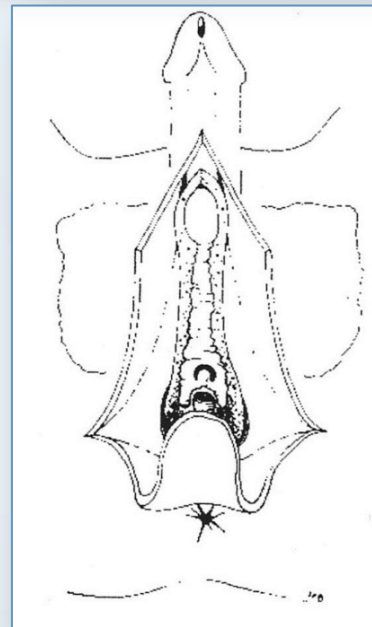
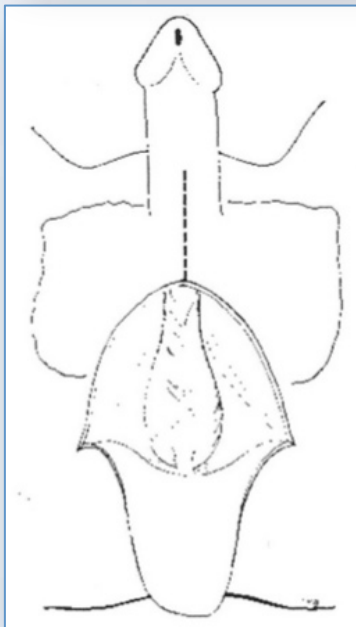
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[www.urethralcenter.it](http://www.urethralcenter.it)

# URETHROPLASTY BY SCROTAL FLAP FOR LONG URETHRAL STRICTURES

By J. P. BLANDY, D.M., M.Ch., F.R.C.S., M. SINGH, F.R.C.S.  
and G. C. TRESIDDER, F.R.C.S.

*From the Department of Urology, The London Hospital*



**Br J Urol 1968, 40: 261-267**



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# One-stage urethroplasty with oral graft



**Abdel W. El-Kassaby**  
**Cairo - Egypt**



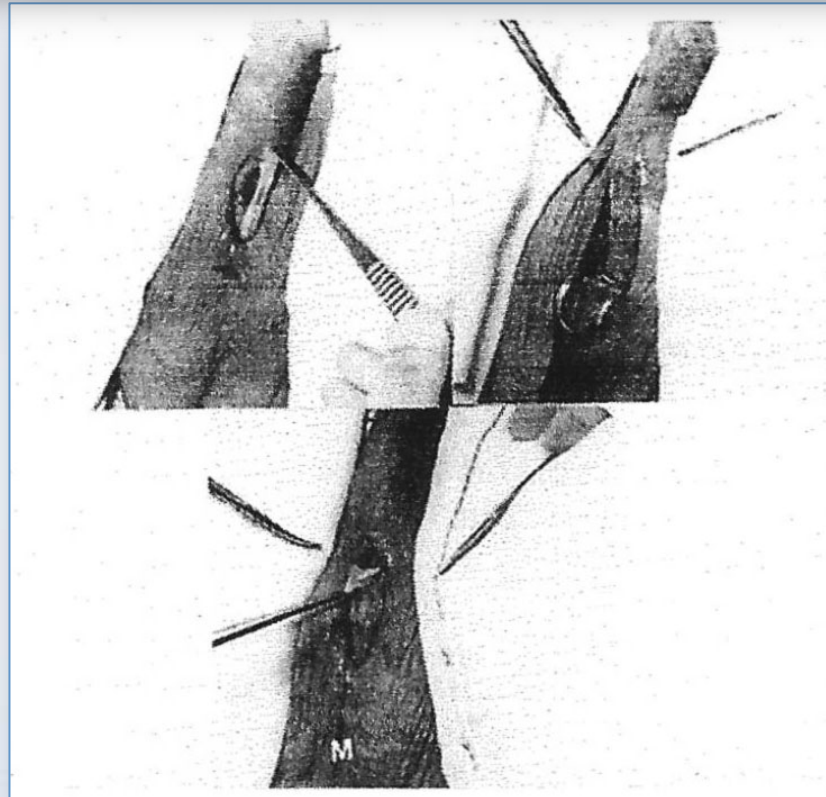
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## THE USE OF BUCCAL MUCOSA PATCH GRAFT IN THE MANAGEMENT OF ANTERIOR URETHRAL STRICTURES

A. W. EL-KASABY, M. FATH-ALLA, A. M. NOWEIR, M. R. EL-HALABY, W. ZAKARIA AND  
M. H. EL-BEIALY

*From the Department of Urology, Ain-Shams University, Cairo, Egypt*



**J Urol 1993; 149: 276-278**



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# Ventral onlay graft urethroplasty



**Jack W. McAninch**  
**San Francisco - USA**

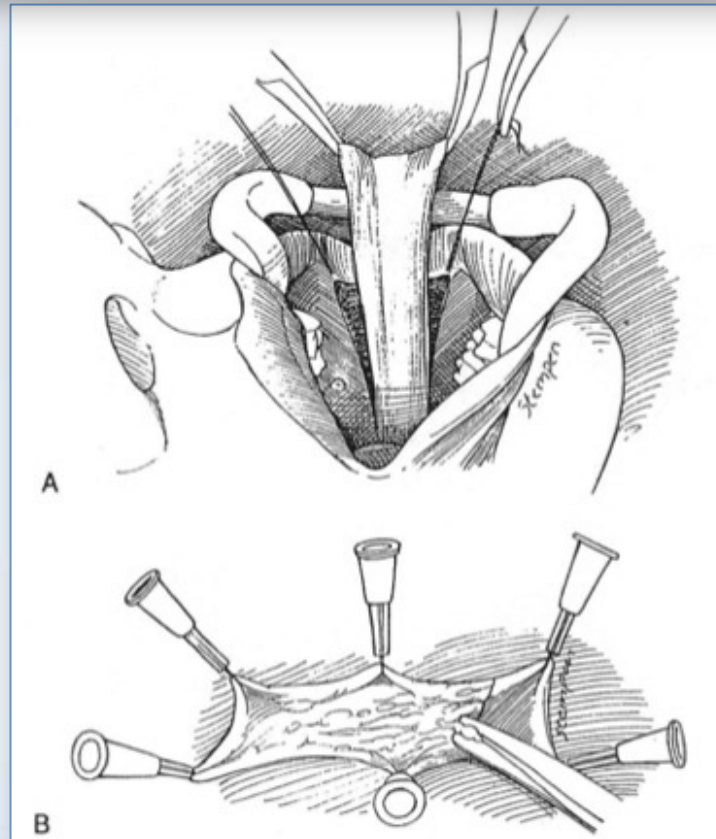


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# WHEN AND HOW TO USE BUCCAL MUCOSAL GRAFTS IN ADULT BULBAR URETHROPLASTY

ALLEN F. MOREY AND JACK W. McANINCH



**Urology 1996; 48: 194-198**



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# Dorsal onlay graft urethroplasty



**Guido Barbagli**  
**Arezzo - Italy**



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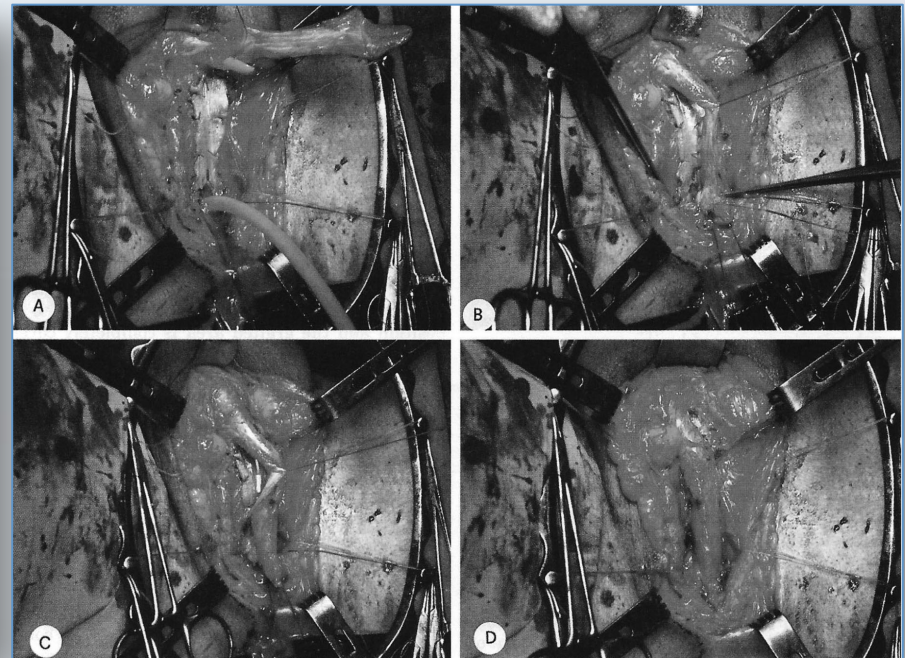
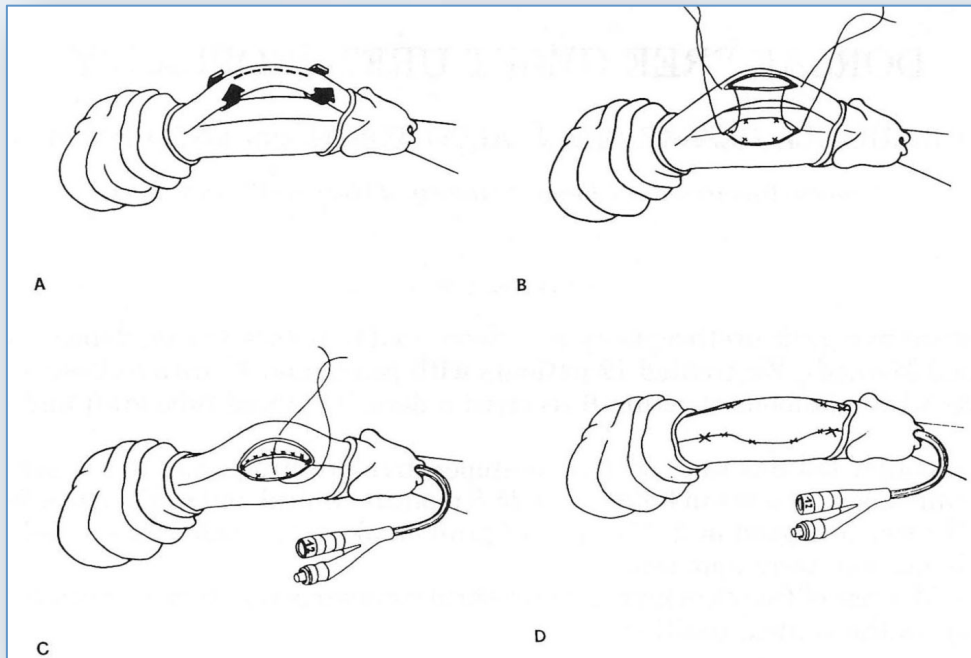
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# DORSAL FREE GRAFT URETHROPLASTY

GUIDO BARBAGLI, CESARE SELLI, ALDO TOSTO AND ENZO PALMINTERI

*From the Department of Urology, University of Florence, Florence, Italy*



**J Urol 1996; 155: 123-126**



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# History of the Use of Oral Mucosa in Urethral Surgery (from 1890 to 1996)

**1890: K. M. Sapezhko**

**1941: G. Humby**

**1992: R. A. Bürger and A. Dessanti**

**1996: J. W. McAninch and G. Barbagli**



# Evolution of the Urethral Surgery

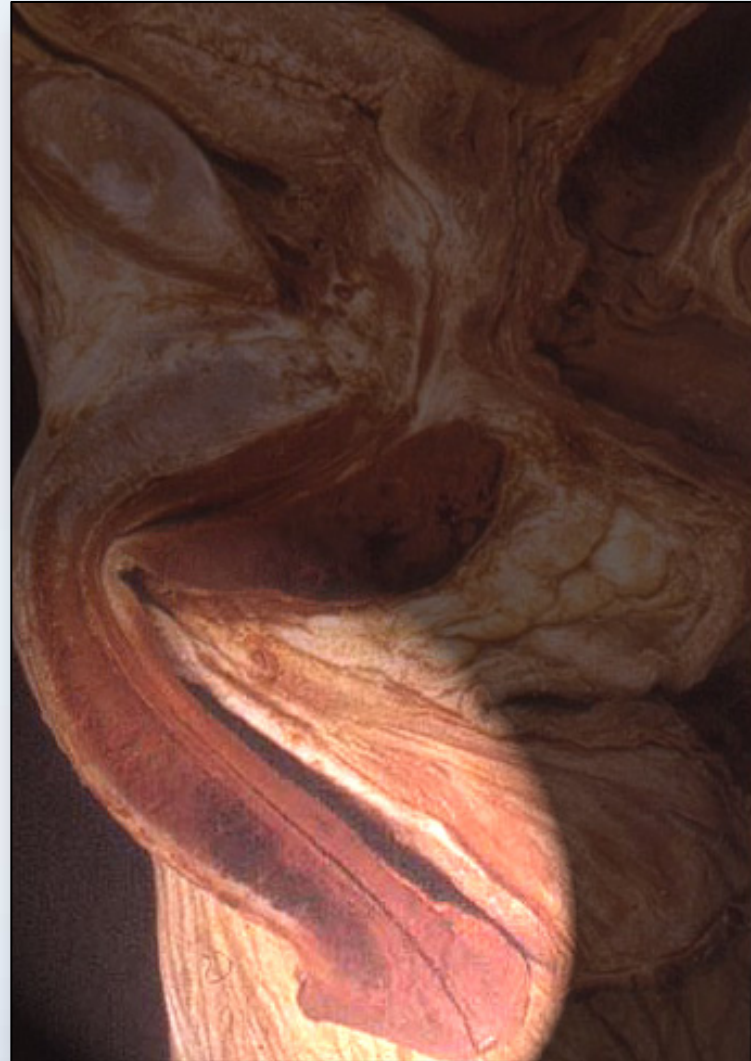
**New one-stage or two-stage surgical techniques based on the “dorsal” approach to urethral lumen using a oral mucosa graft.**

**Reports of the results using multivariable statistical analysis in large series of patients.**

**High quality of photo and video.**



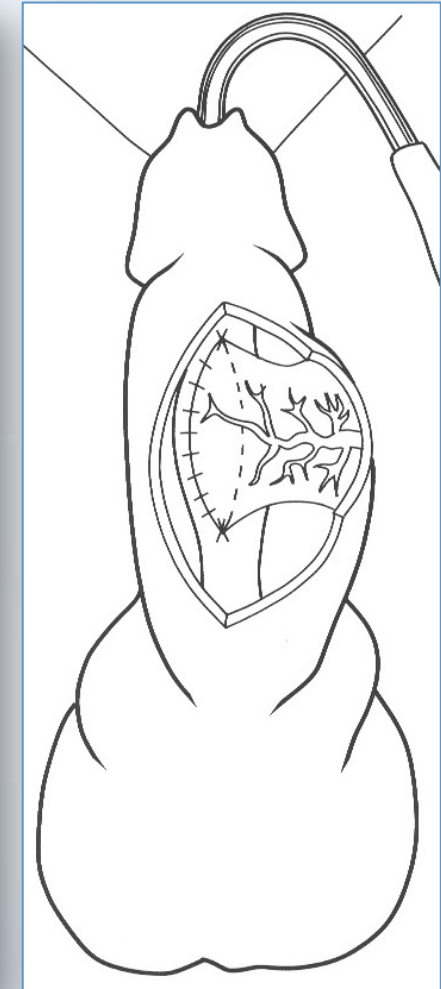
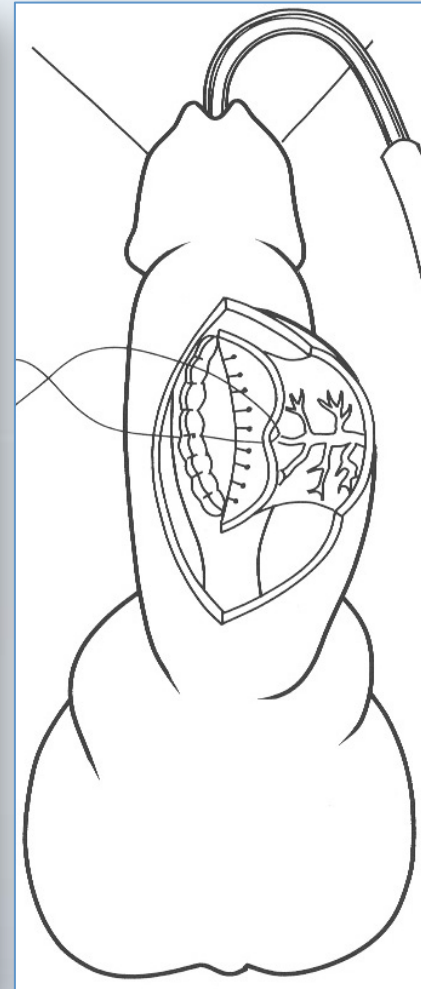
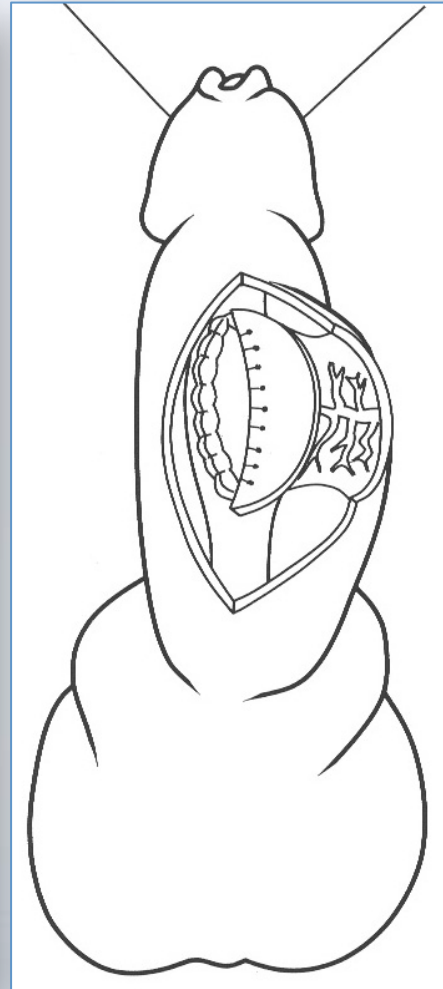
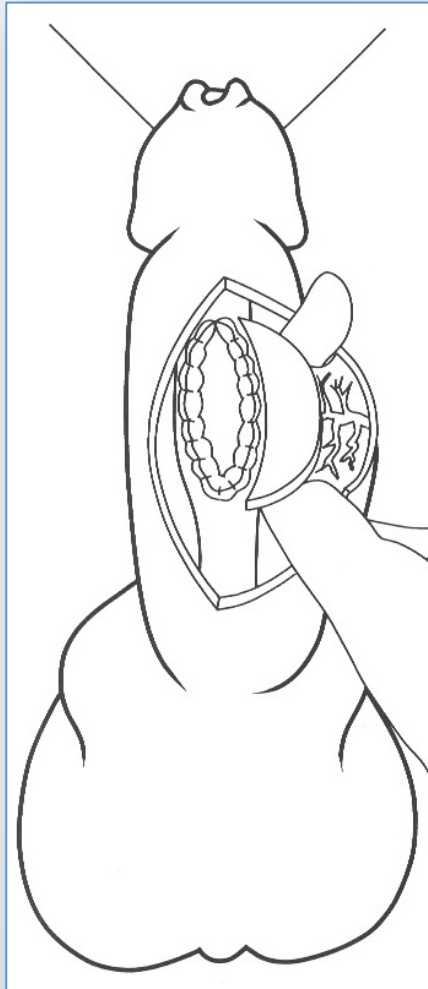
# Penile urethra



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# Orandi's one-stage skin flap urethroplasty

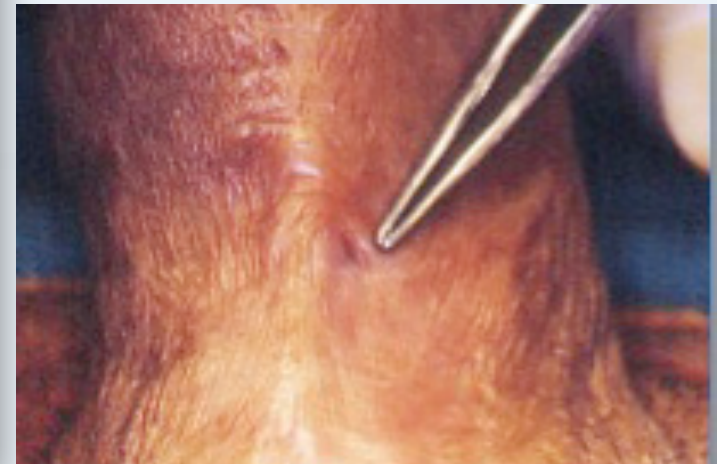


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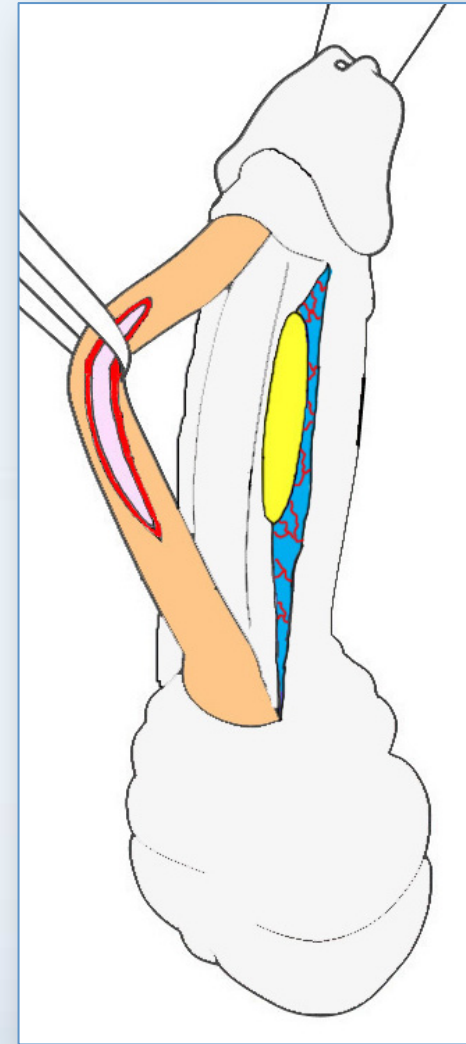
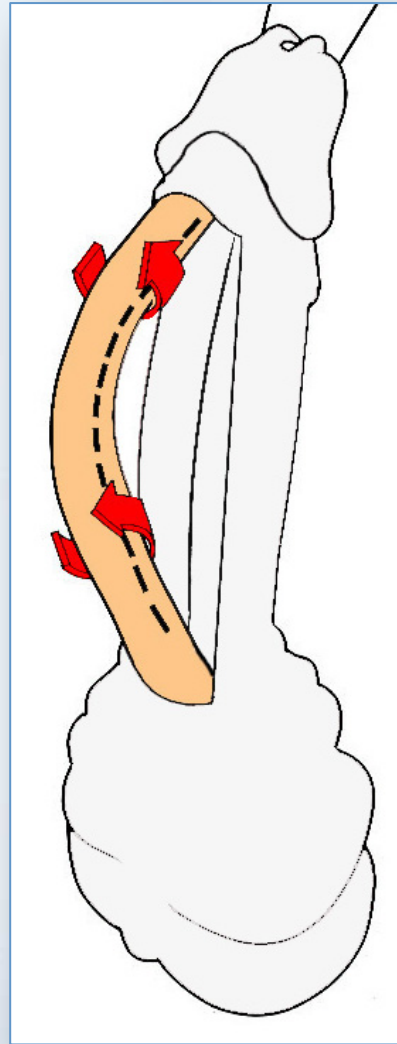
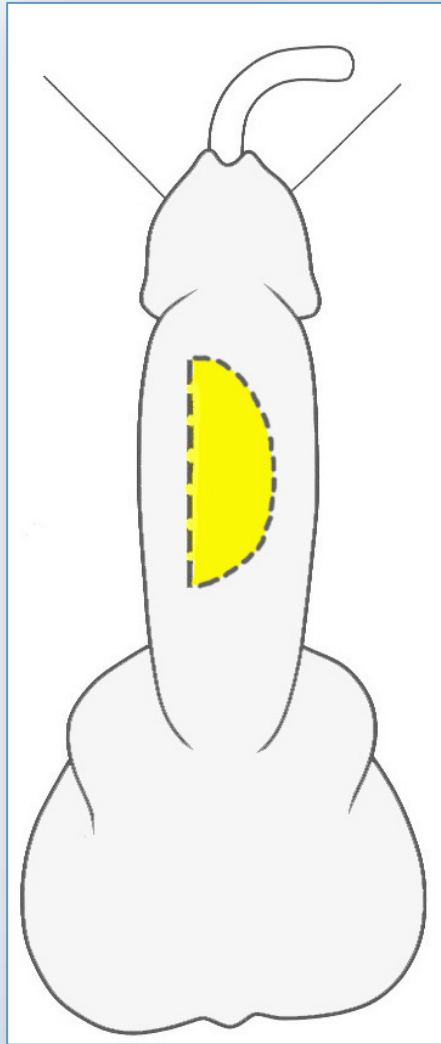
**diverticulum**



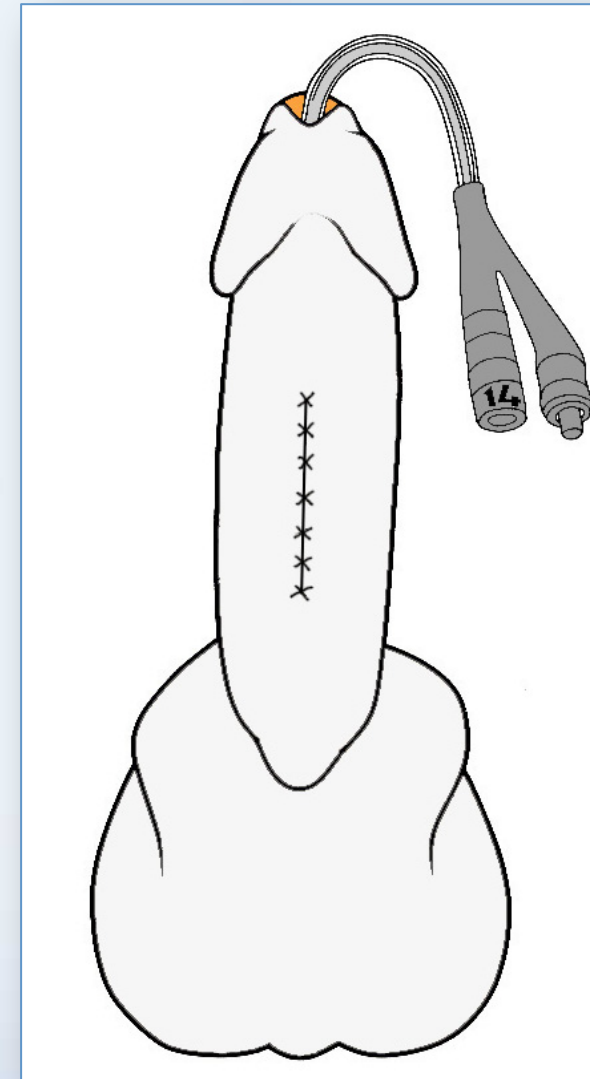
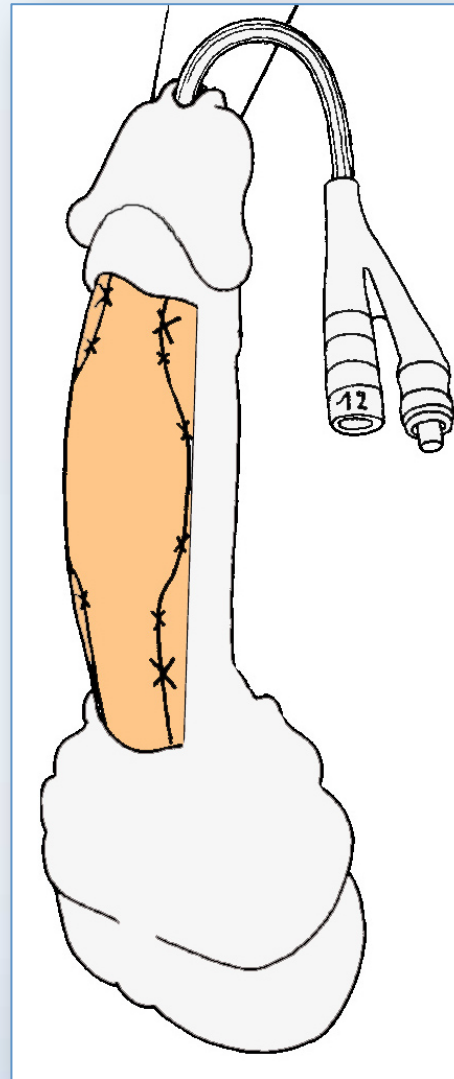
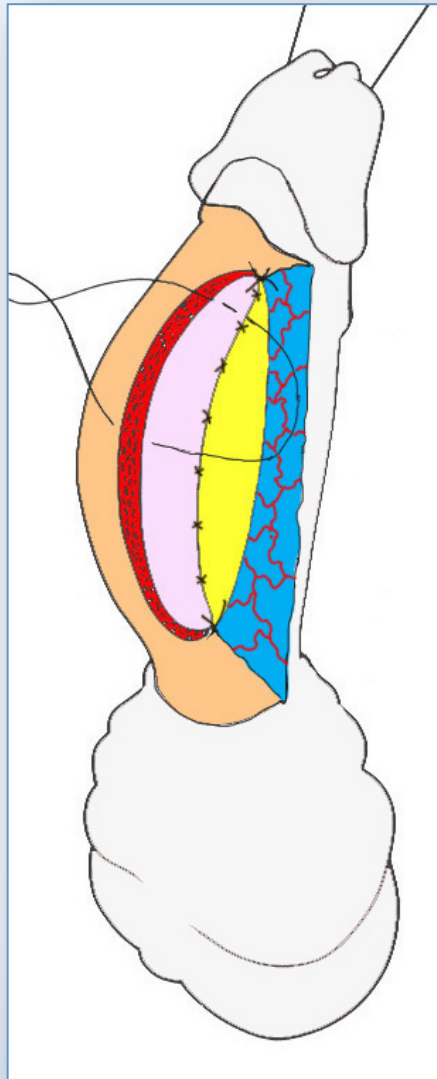
**fistula**



# Modified Orandi's urethroplasty



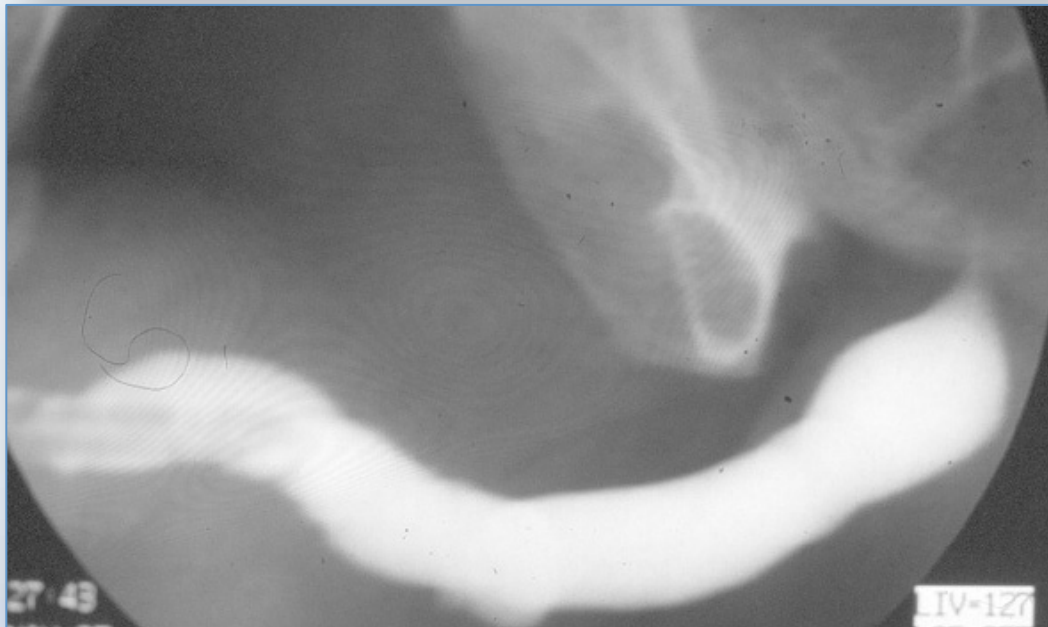
# Modified Orandi's urethroplasty



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Websites: [www.uretra.it](http://www.uretra.it)  
[www.urethralcenter.it](http://www.urethralcenter.it)

# One-stage penile urethroplasty with oral graft



**Hari S. Asopa**  
**Agra - India**

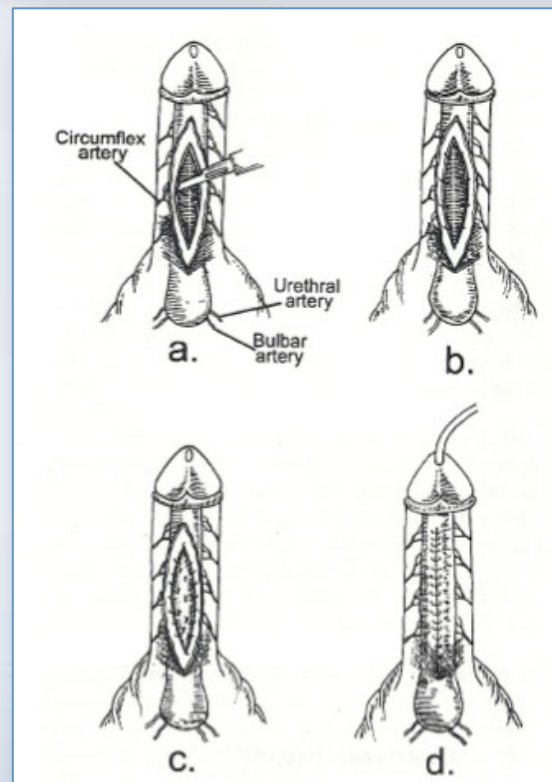


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# DORSAL FREE GRAFT URETHROPLASTY FOR URETHRAL STRICTURE BY VENTRAL SAGITTAL URETHROTOMY APPROACH

HARI S. ASOPA, MUKUL GARG, GOVIND G. SINGHAL, LAKHAN SINGH, JYOTI ASOPA, AND ARCHANA NISCHAL



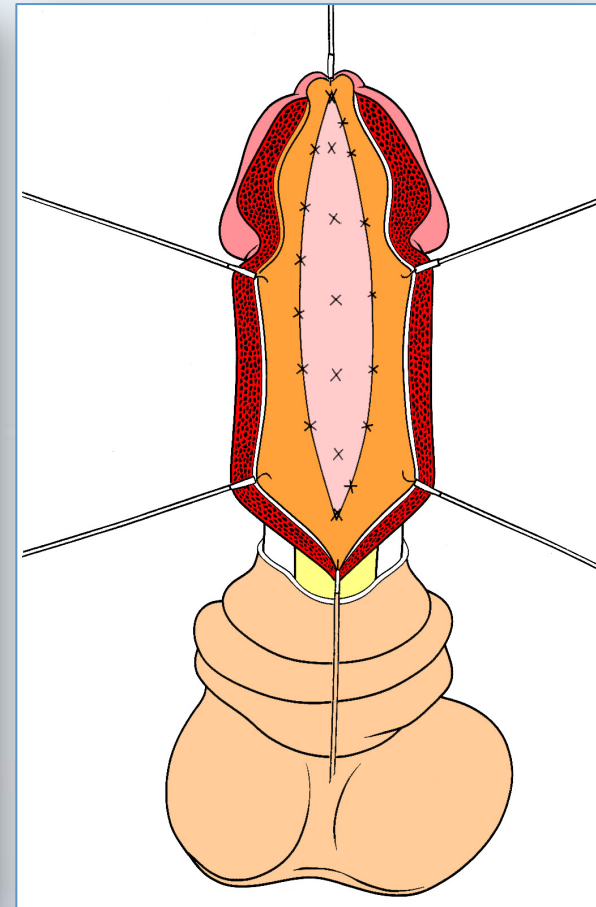
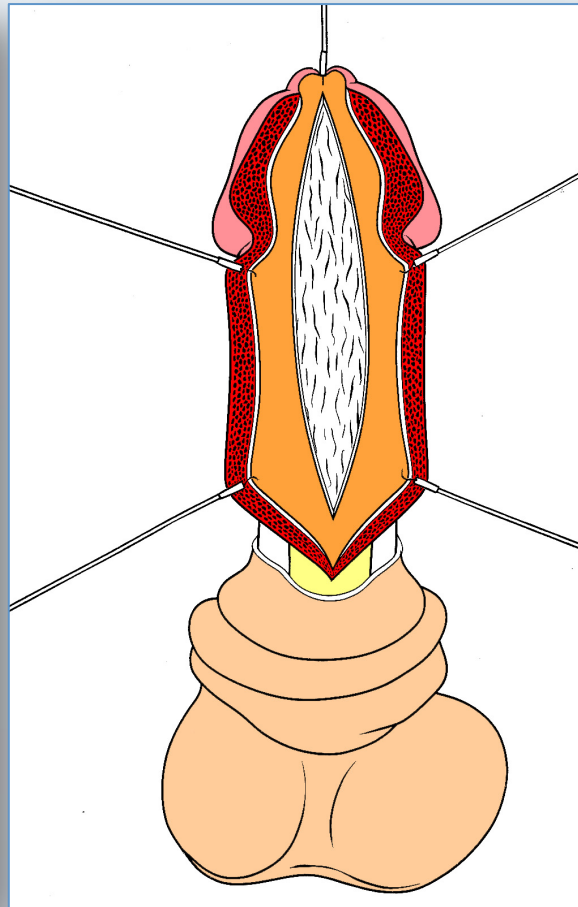
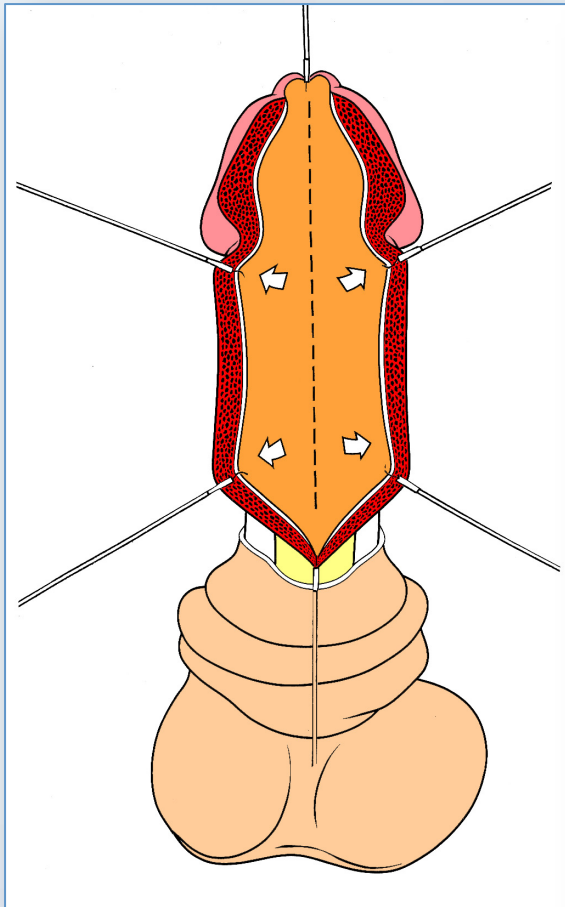
**Urology, 2001: 58; 657-659**



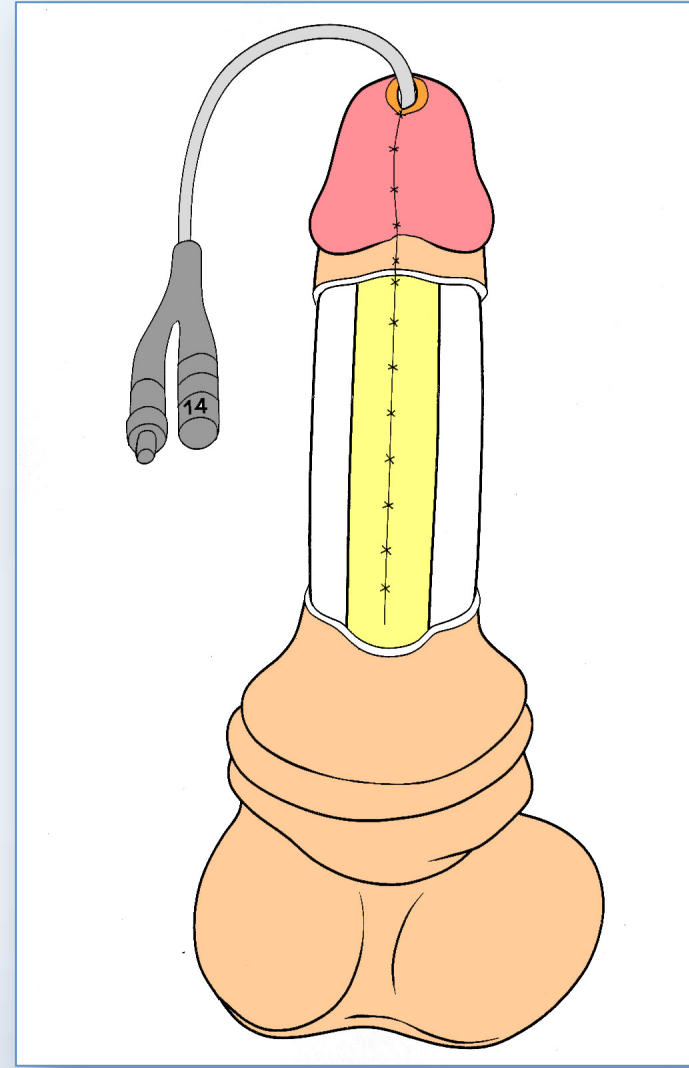
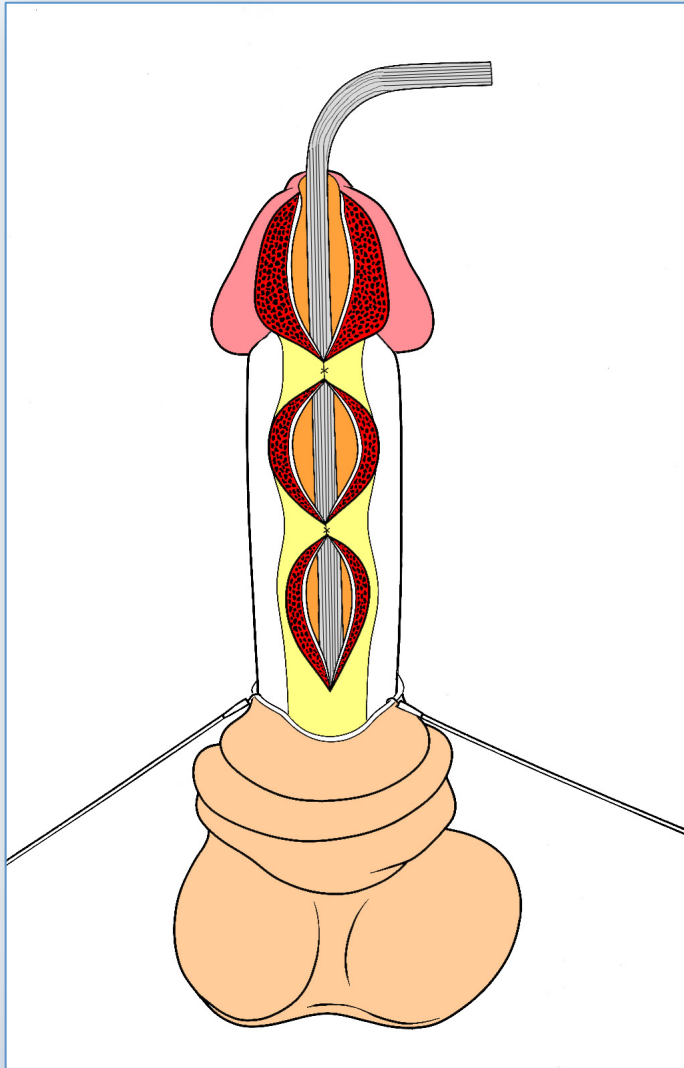
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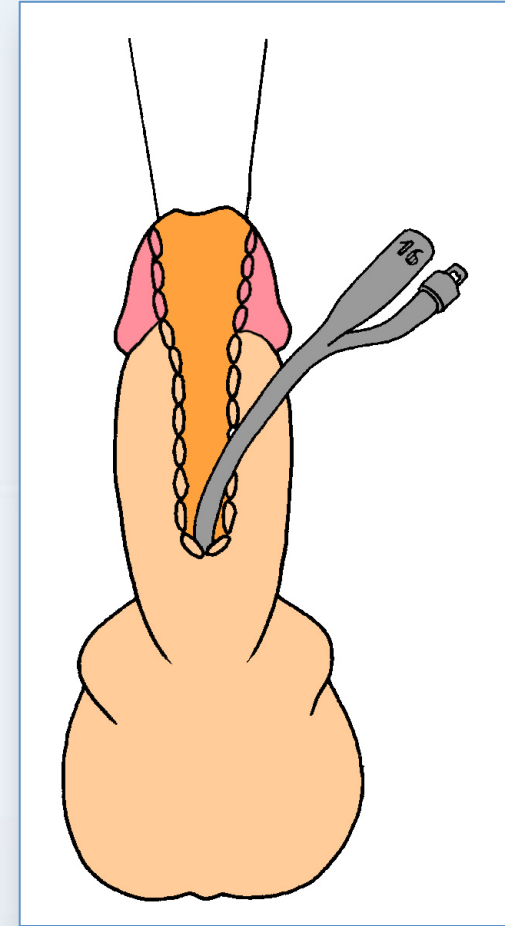
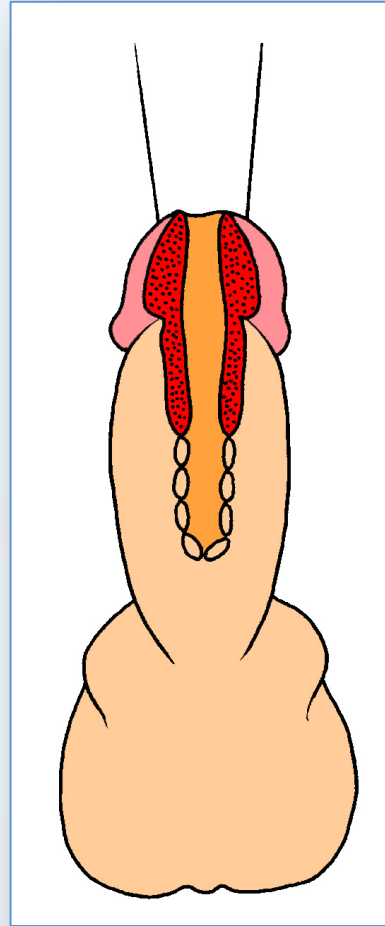
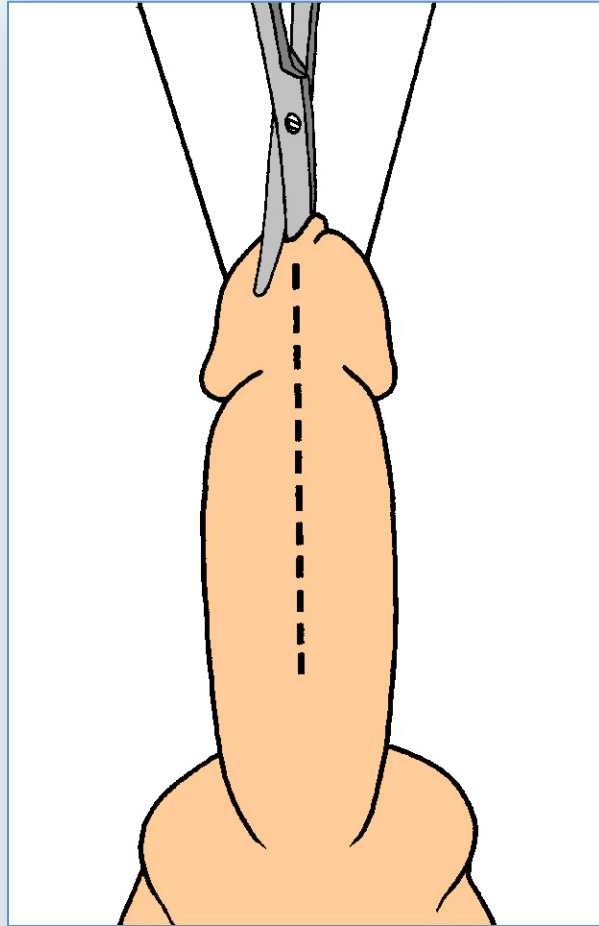
# Asopa's graft inlay technique



# Asopa's graft inlay technique



# Modified Johanson's two-stage urethroplasty



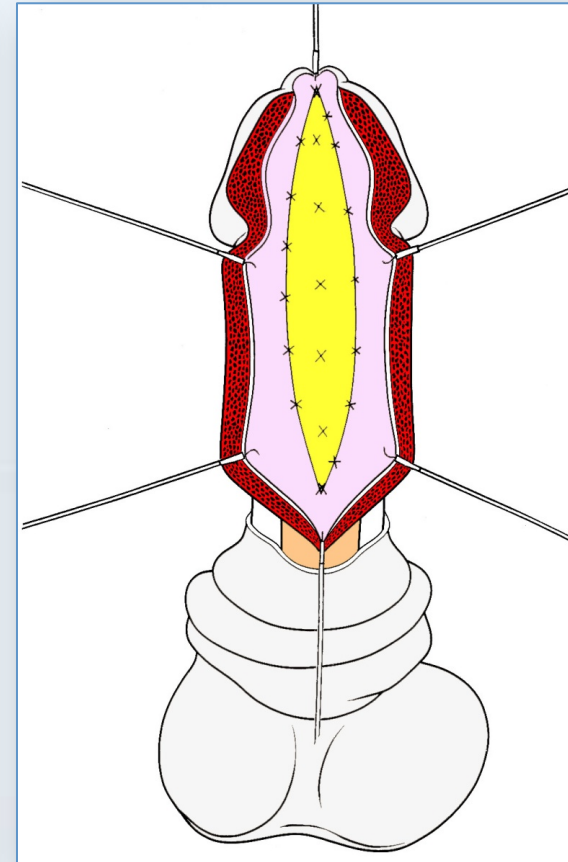
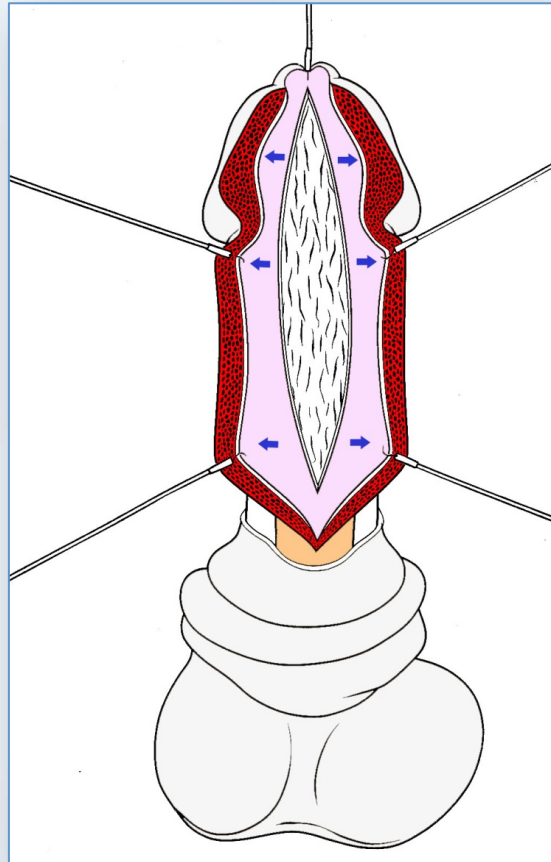
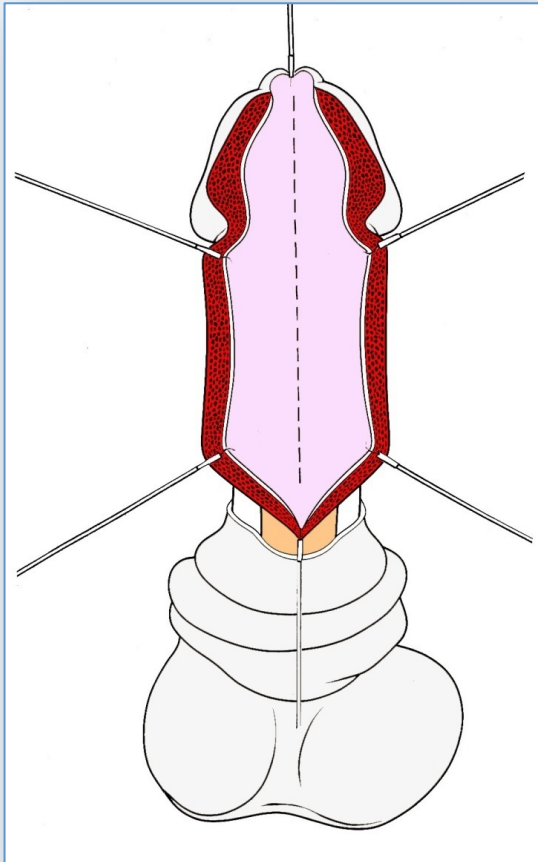
**First stage**



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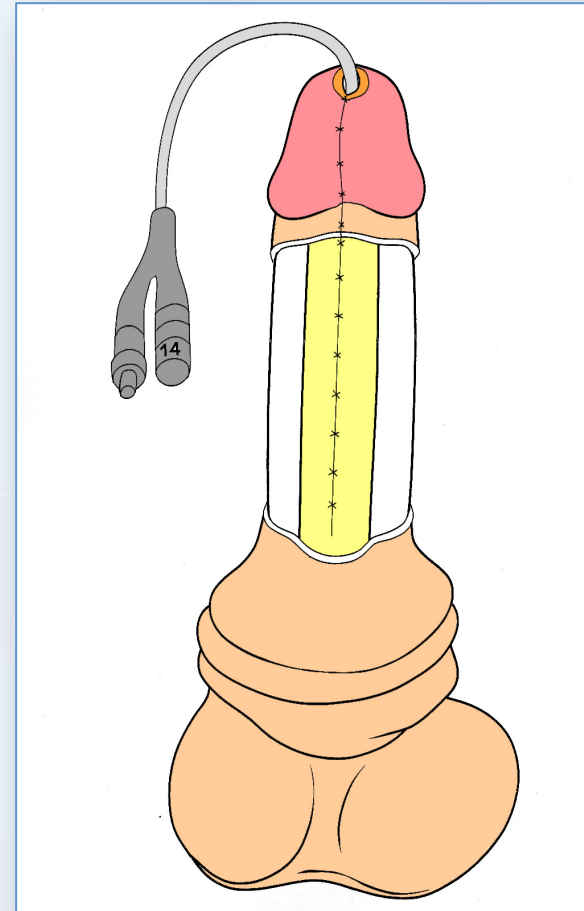
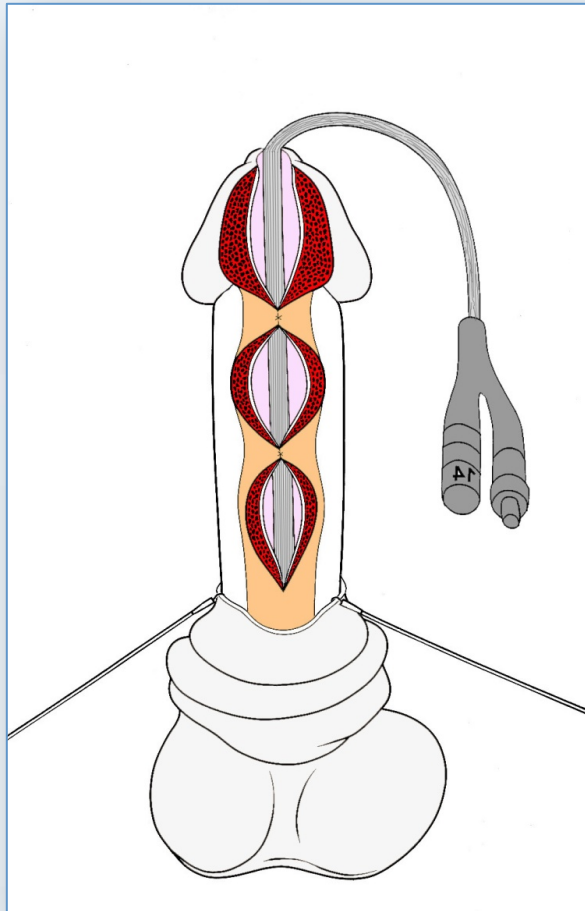
# Modified Johanson's urethroplasty



**Second stage**



# Modified Johanson's urethroplasty



**Second stage**





# Bulbar urethra



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# Modified Barbagli's dorsal urethroplasty

**BJUI**  
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## One-sided anterior urethroplasty: a new dorsal onlay graft technique

**Sanjay Kulkarni, Guido Barbagli\*, Salvatore Sansalone<sup>†</sup> and Massimo Lazzeri<sup>‡</sup>**

*Centre for Reconstructive Urethral Surgery, Pune, India; \*Centre for Reconstructive Urethral Surgery, Arezzo,*

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Accepted for publication 5 December 2008

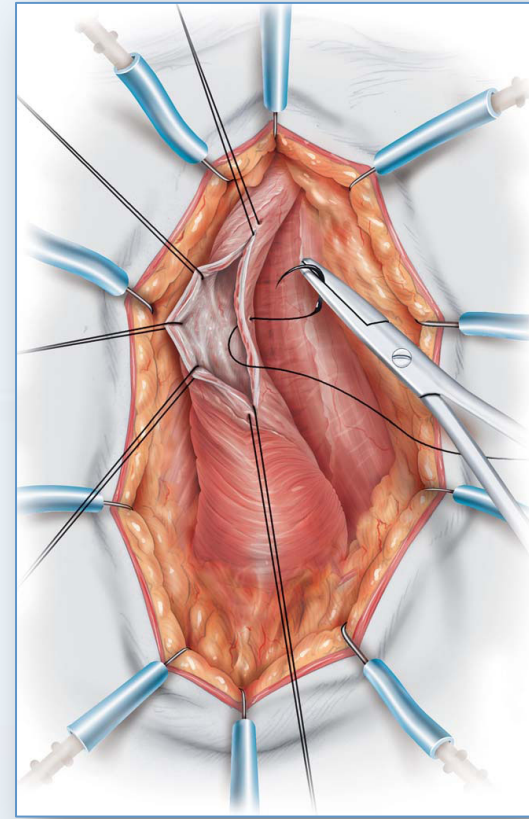
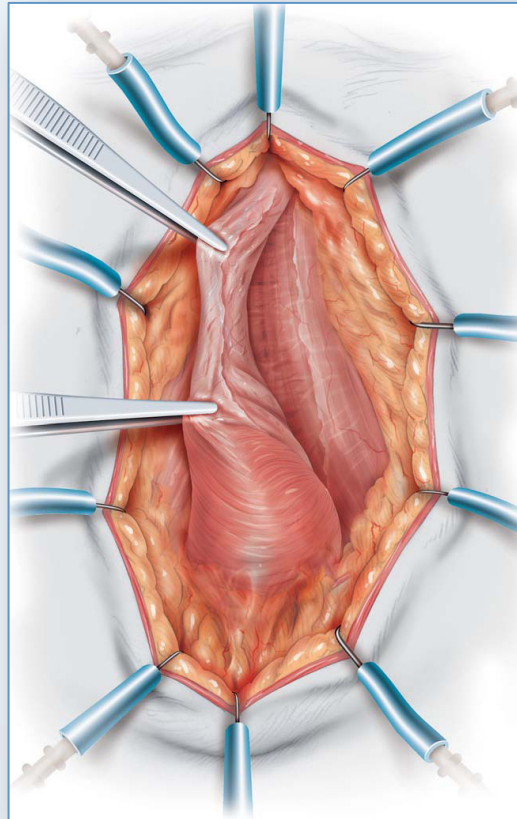
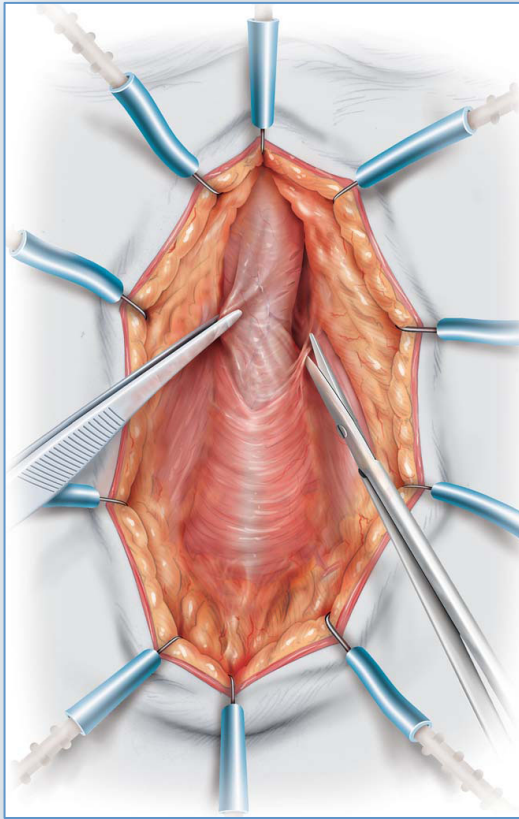
**BJU Int 2009; 104: 1150-1155**



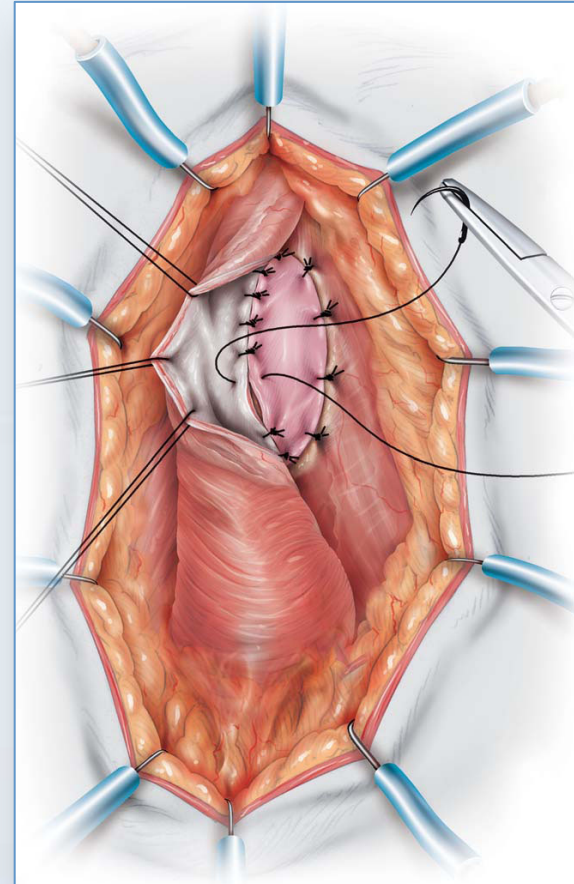
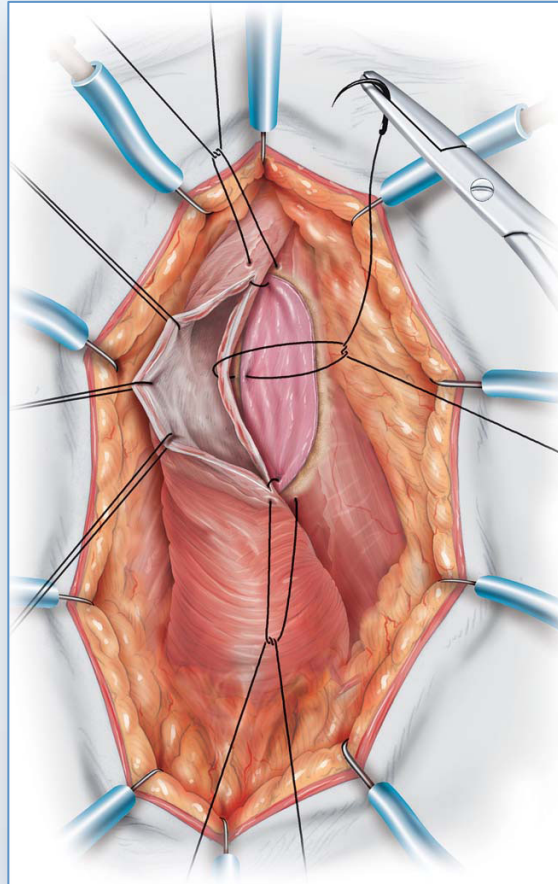
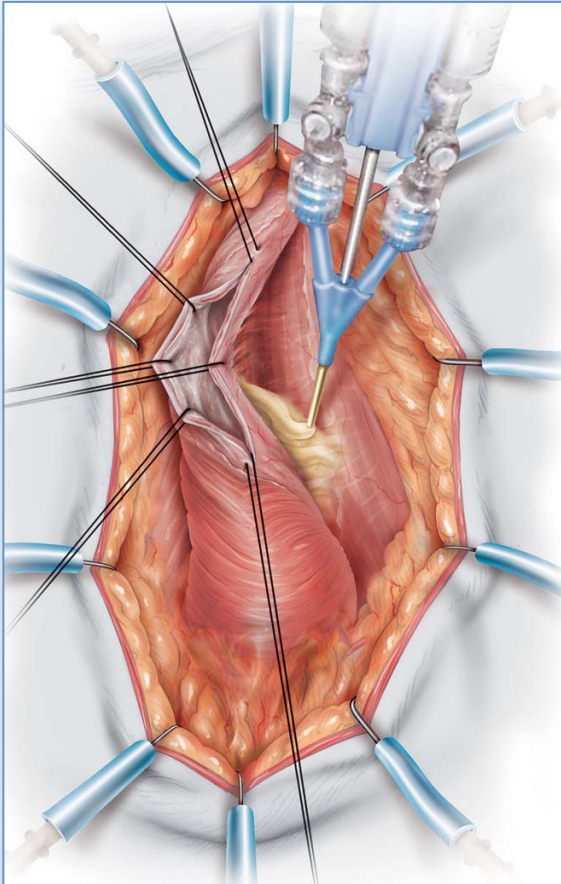
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# One-sided bulbar urethroplasty



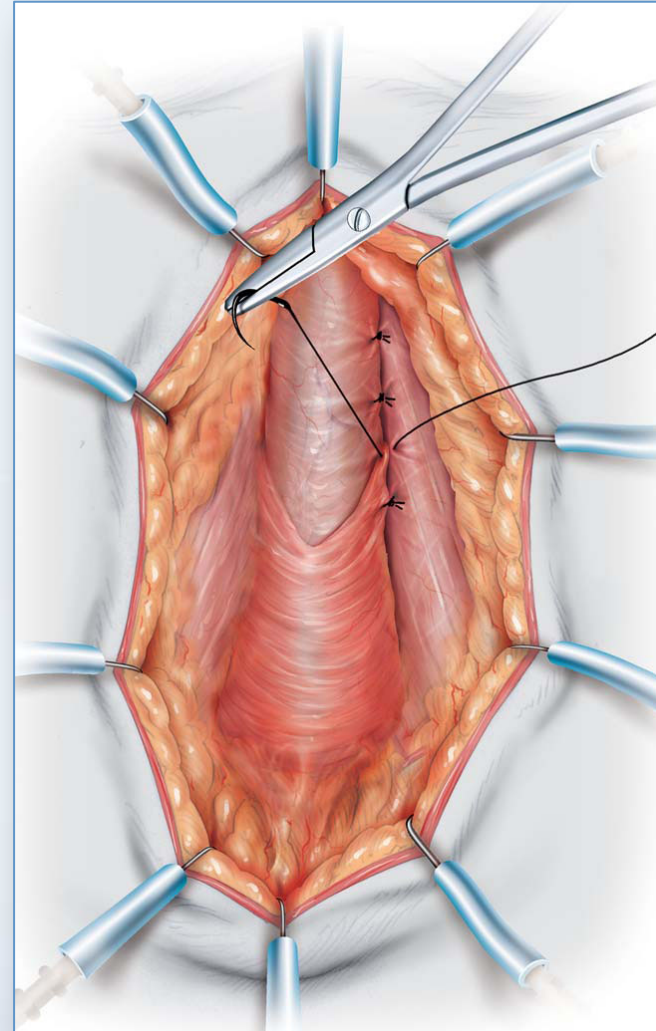
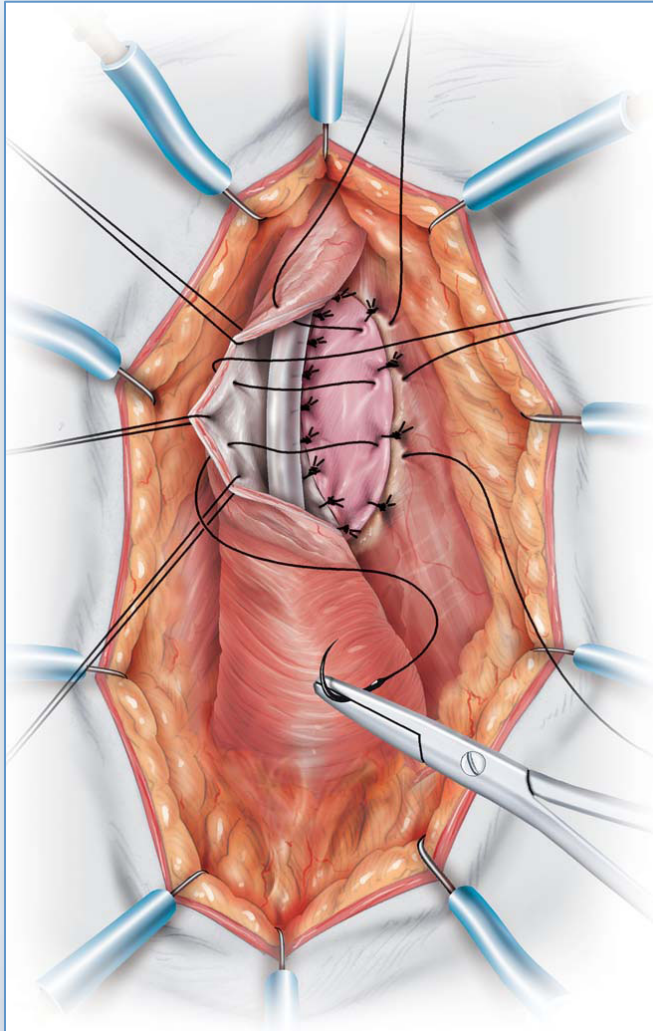
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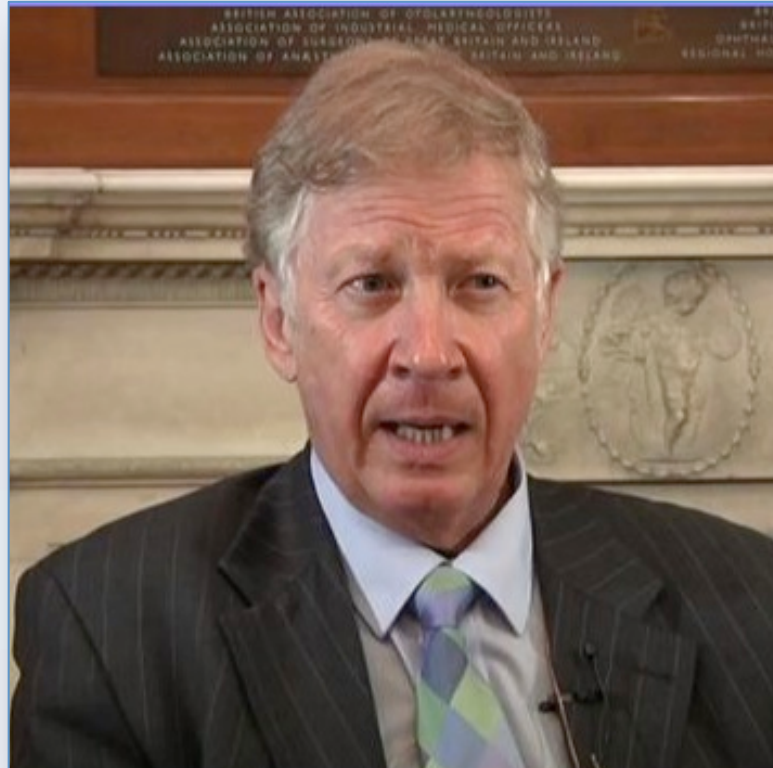
# One-sided bulbar urethroplasty



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# Non-transecting bulbar urethroplasty



**Antony R. Mundy**  
**London - UK**



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# Non-transecting bulbar urethroplasty

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## Non-transecting anastomotic bulbar urethroplasty: a preliminary report

**Daniela E. Andrich and Anthony R. Mundy**

*Institute of Urology, London, UK*

Accepted for publication 21 April 2011

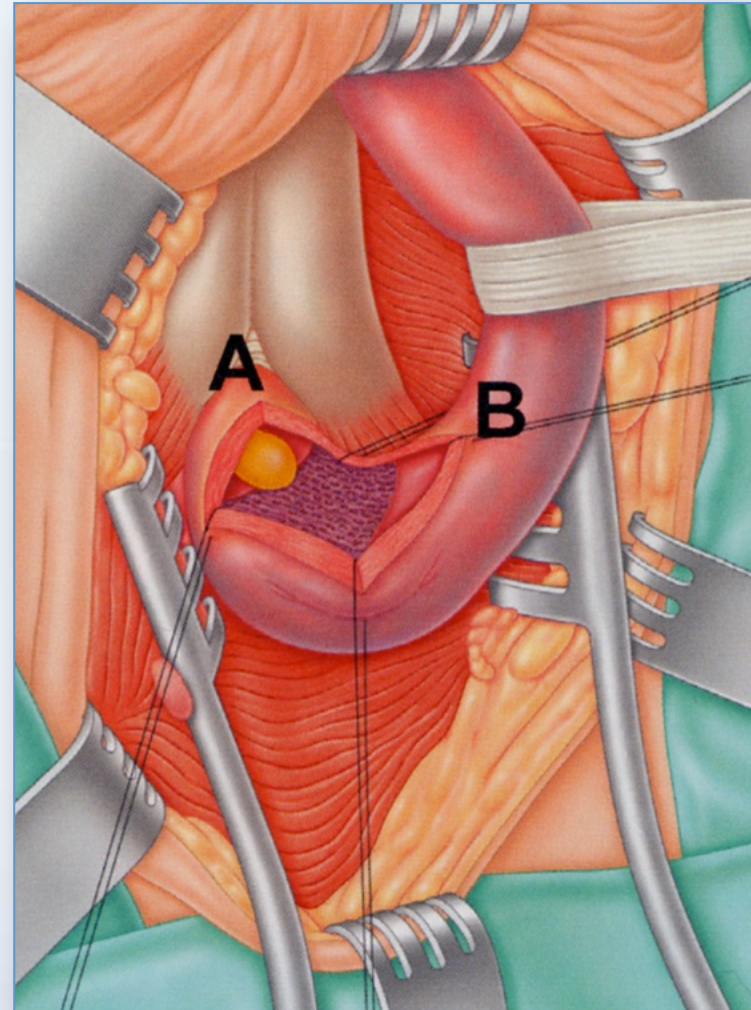
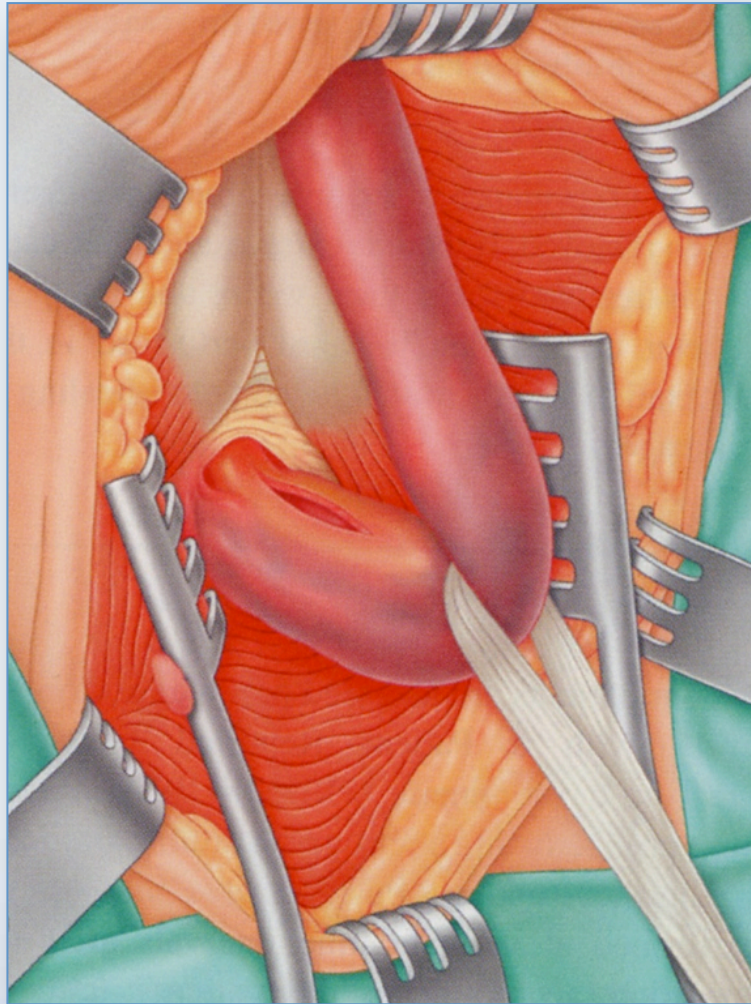
**BJU Int 2011, 109: 1090-1094**



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# Mundy's non-transecting bulbar urethroplasty

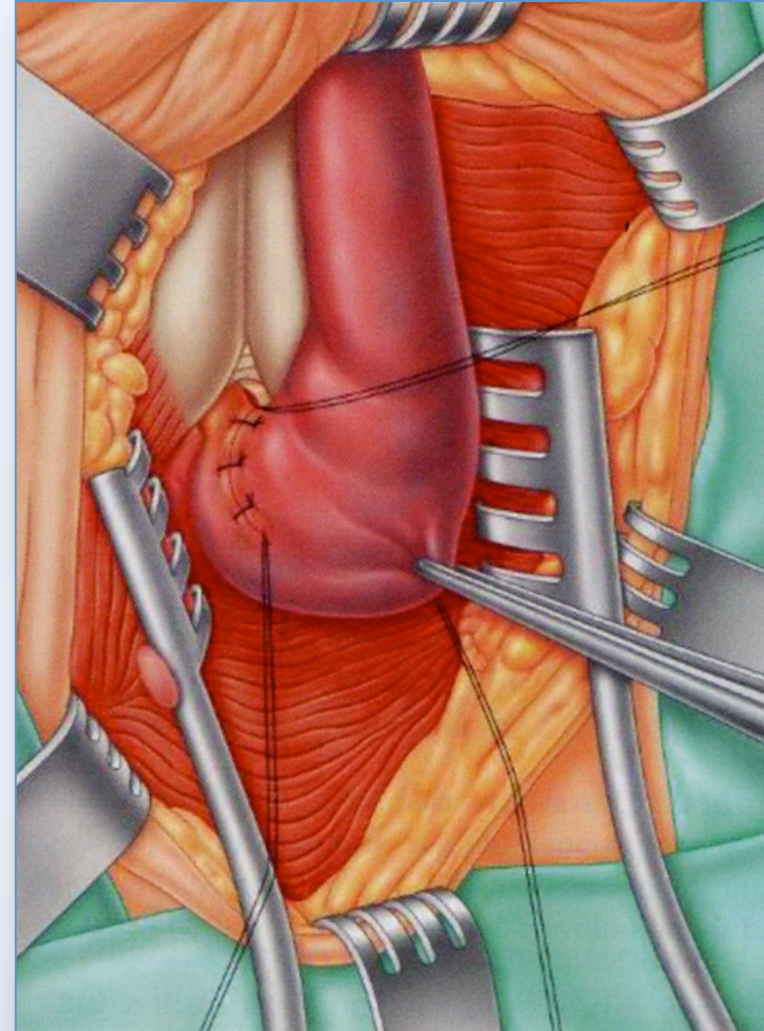
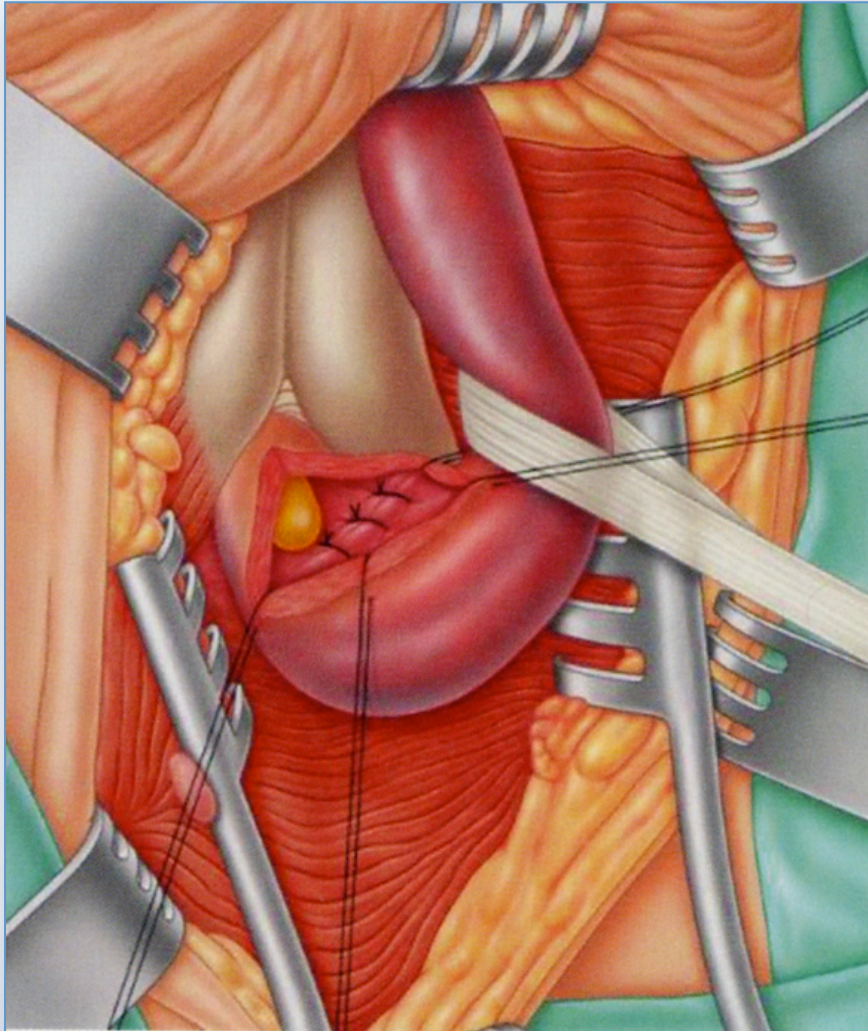


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# Mundy's non-transecting bulbar urethroplasty



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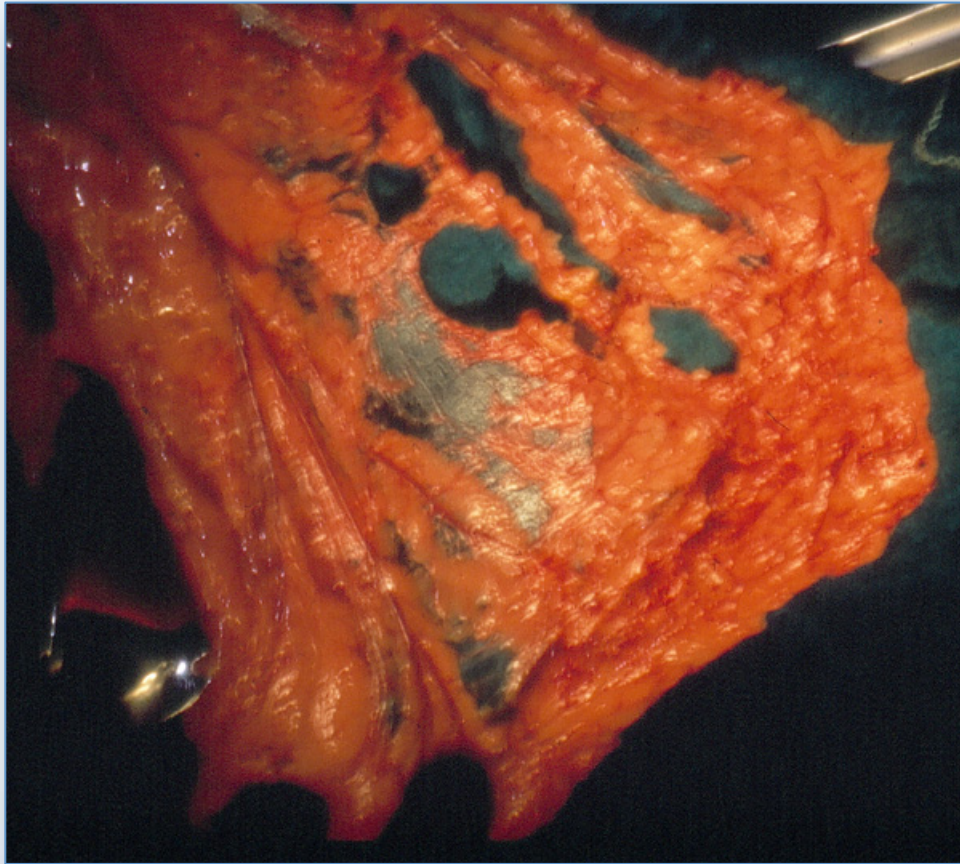
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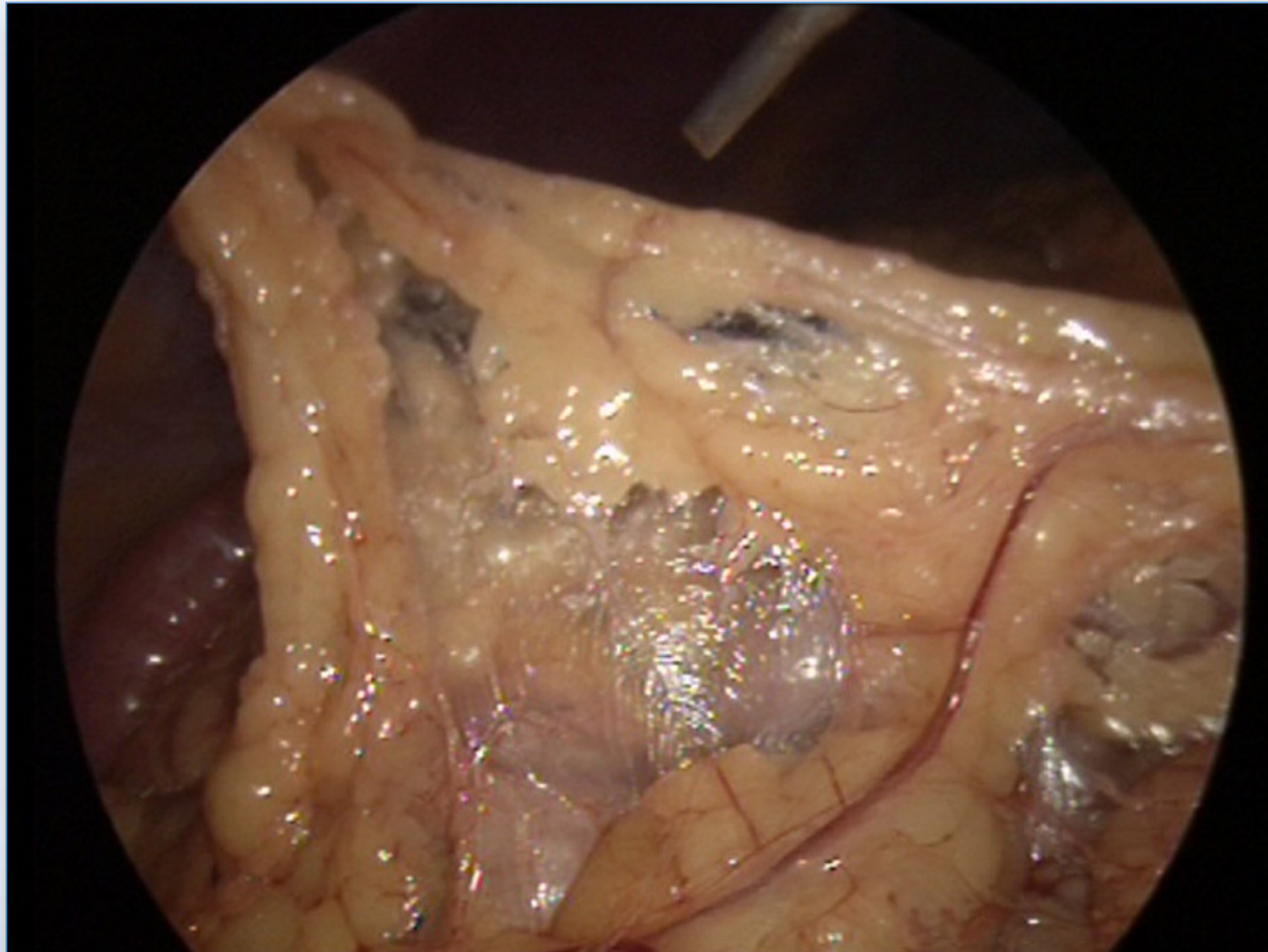
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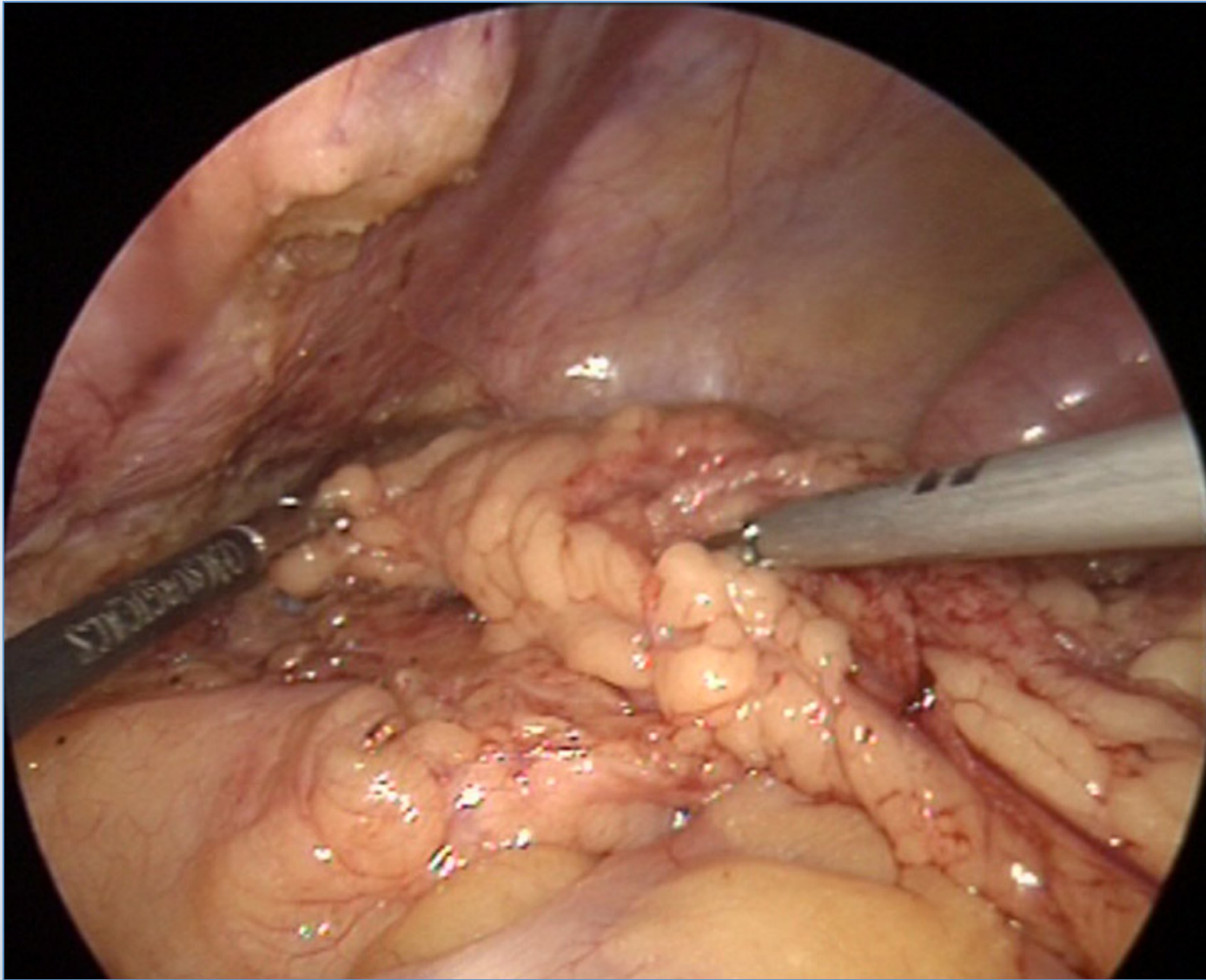
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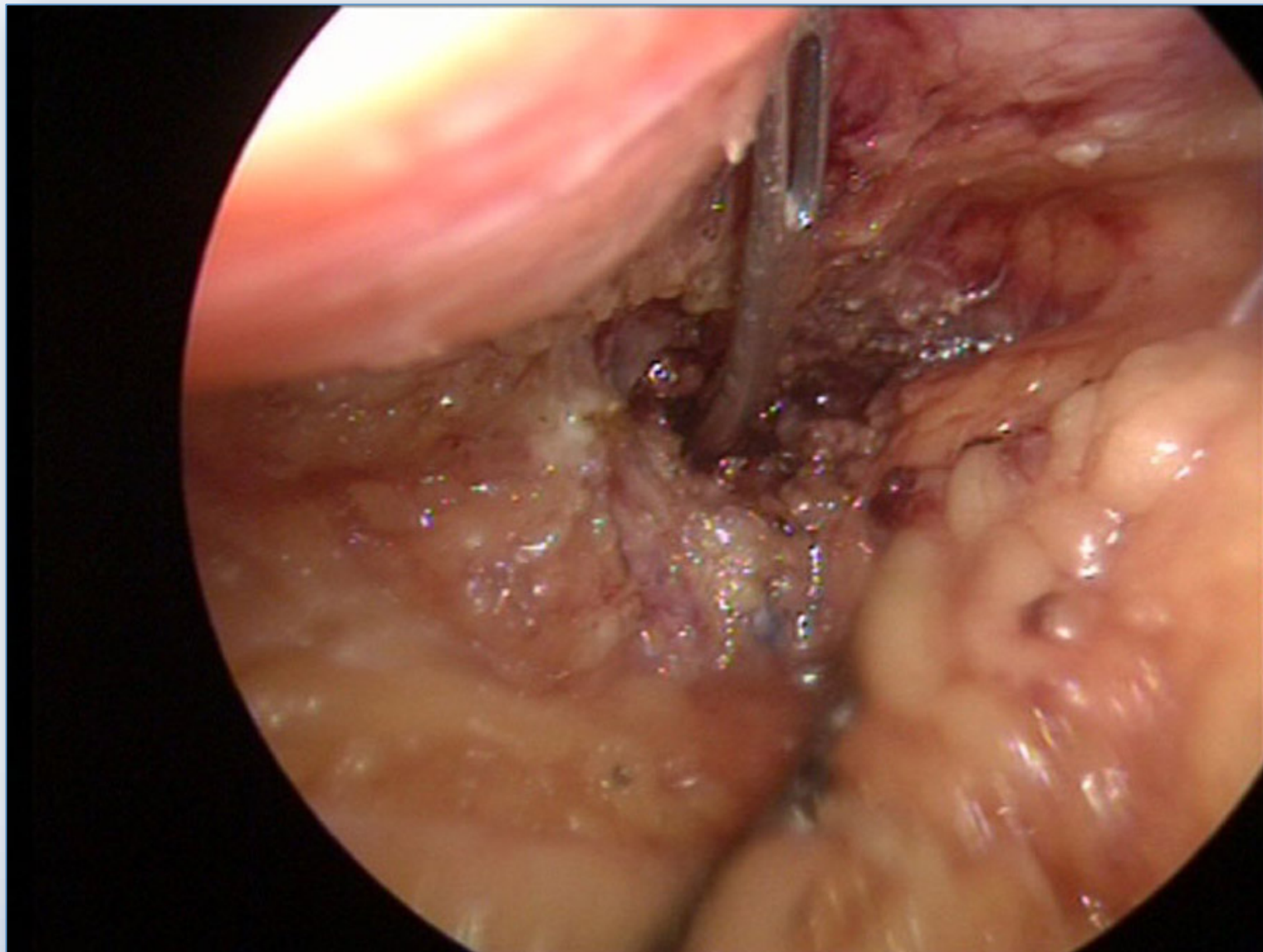
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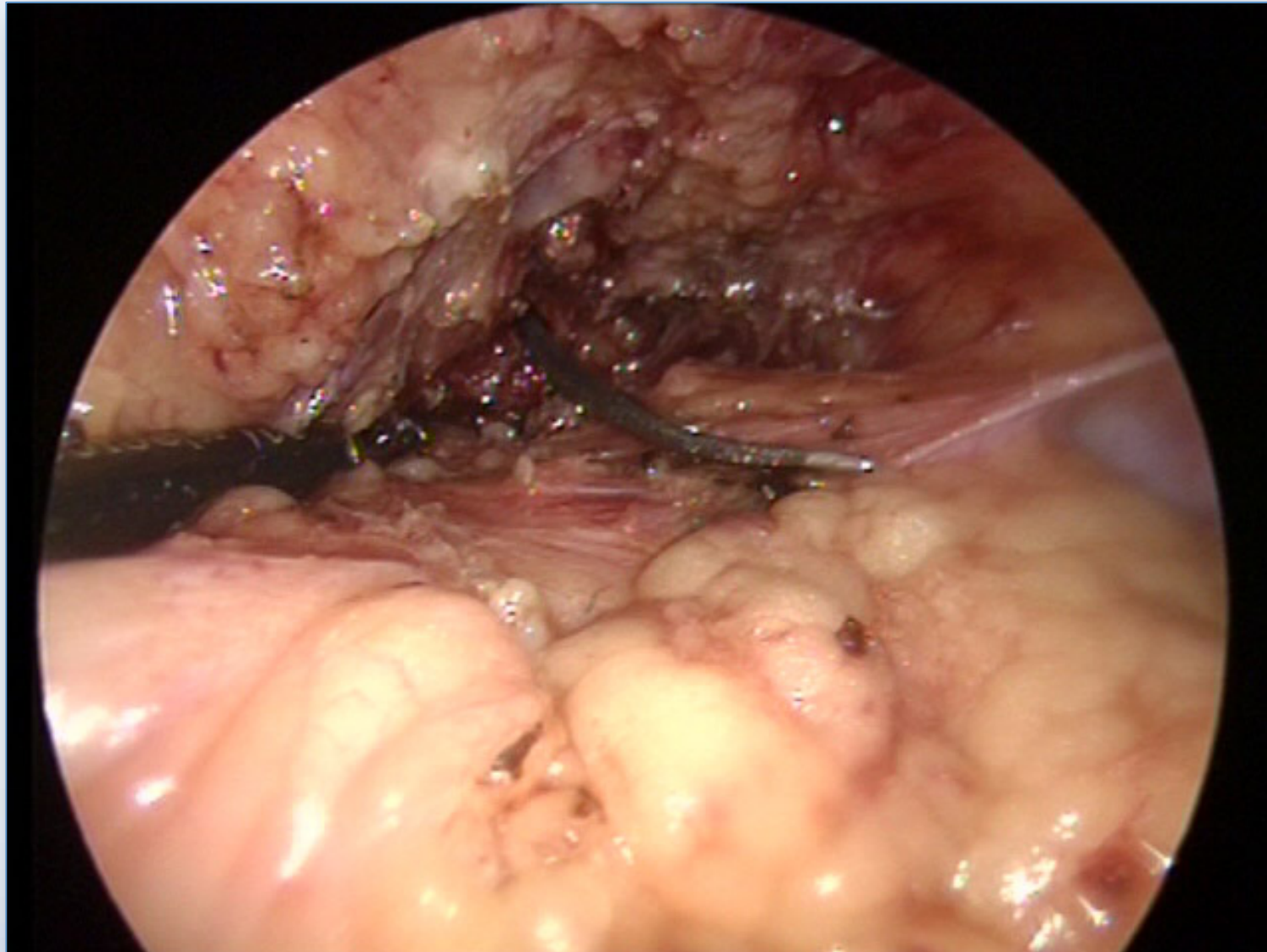
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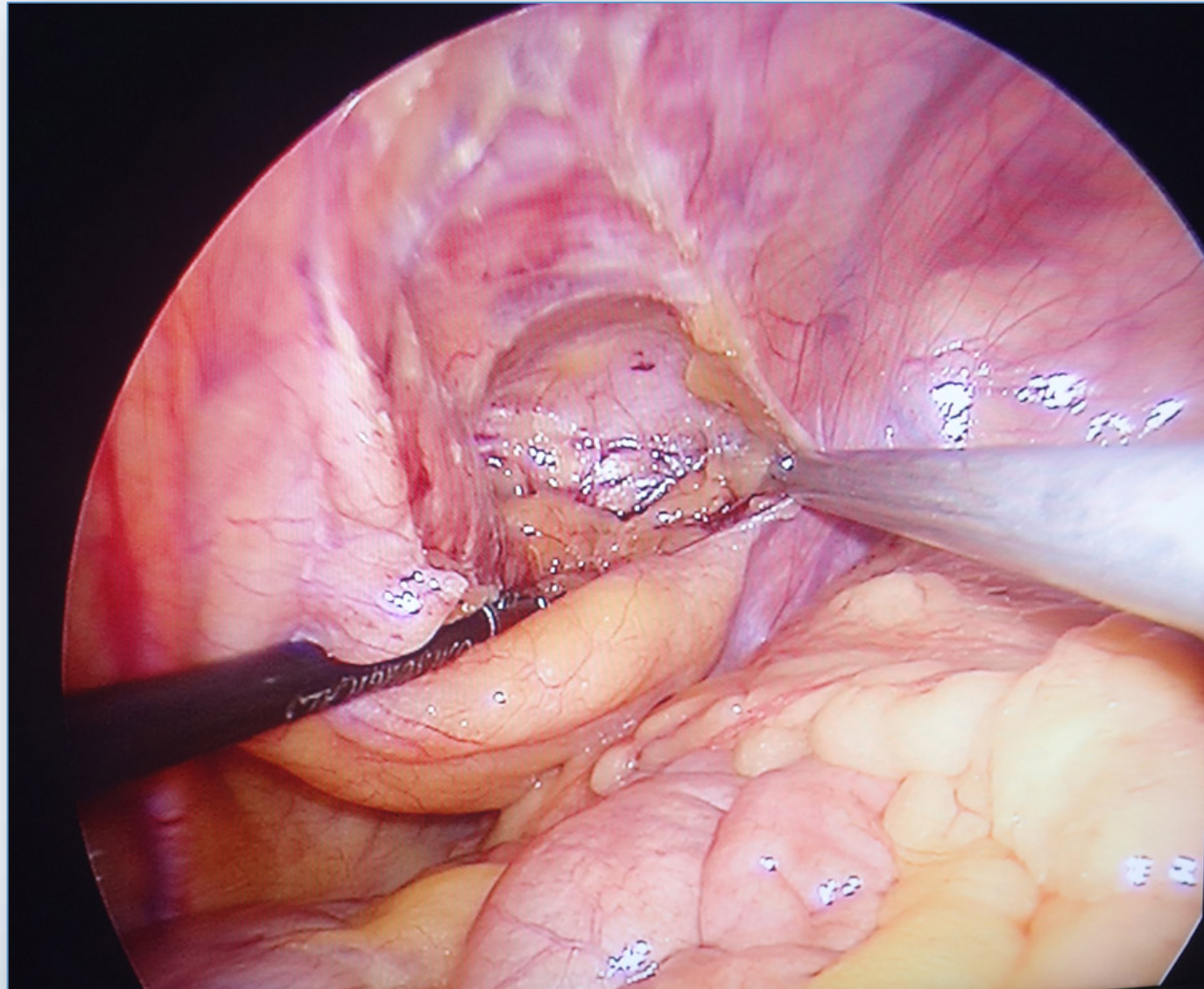
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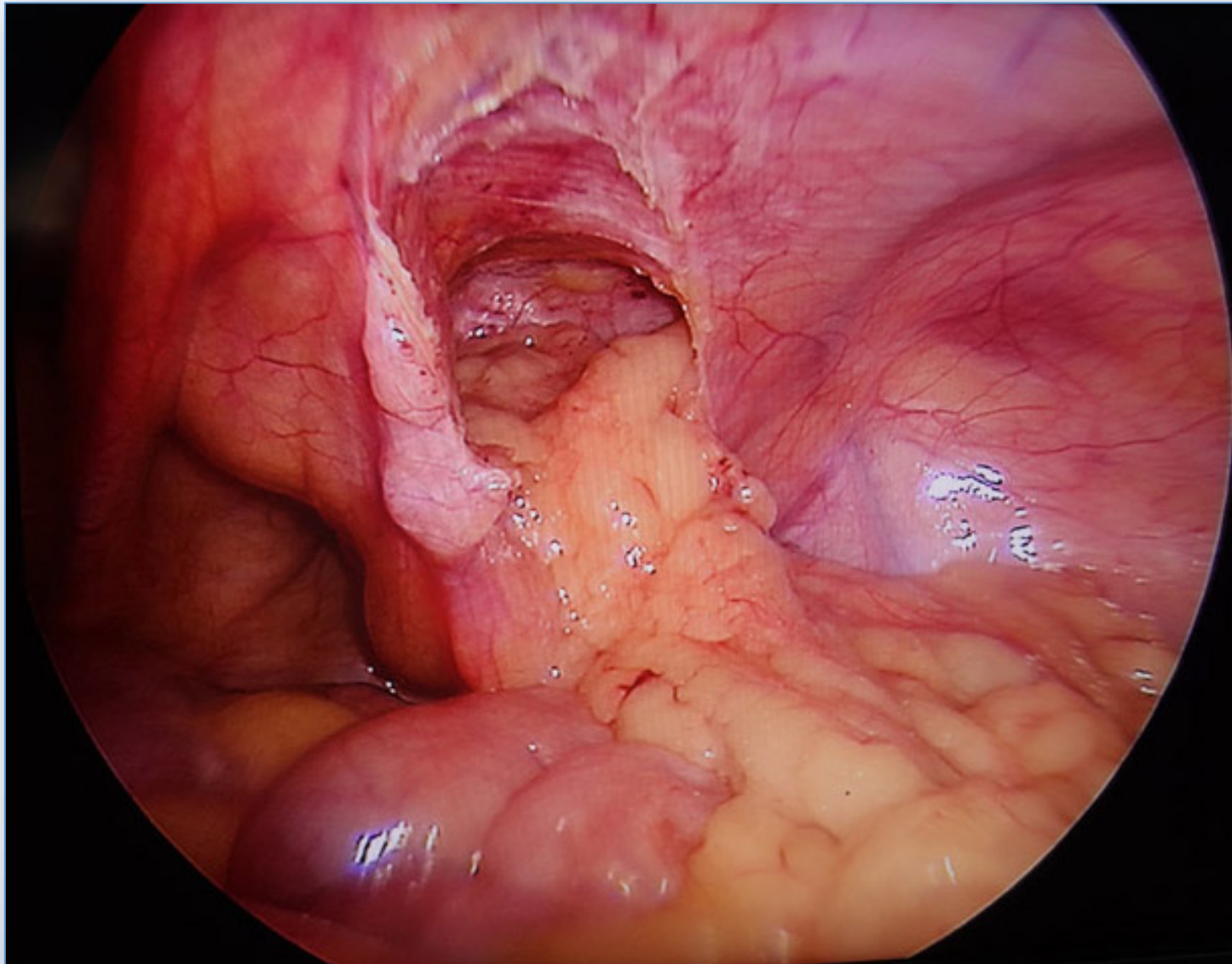
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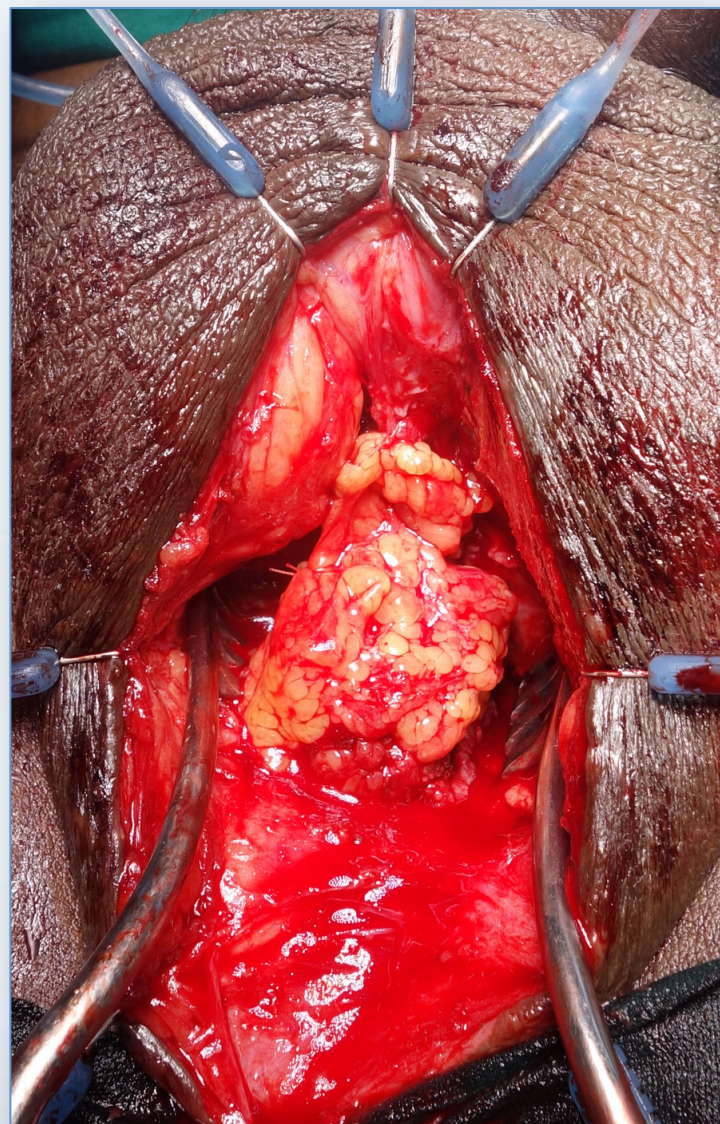
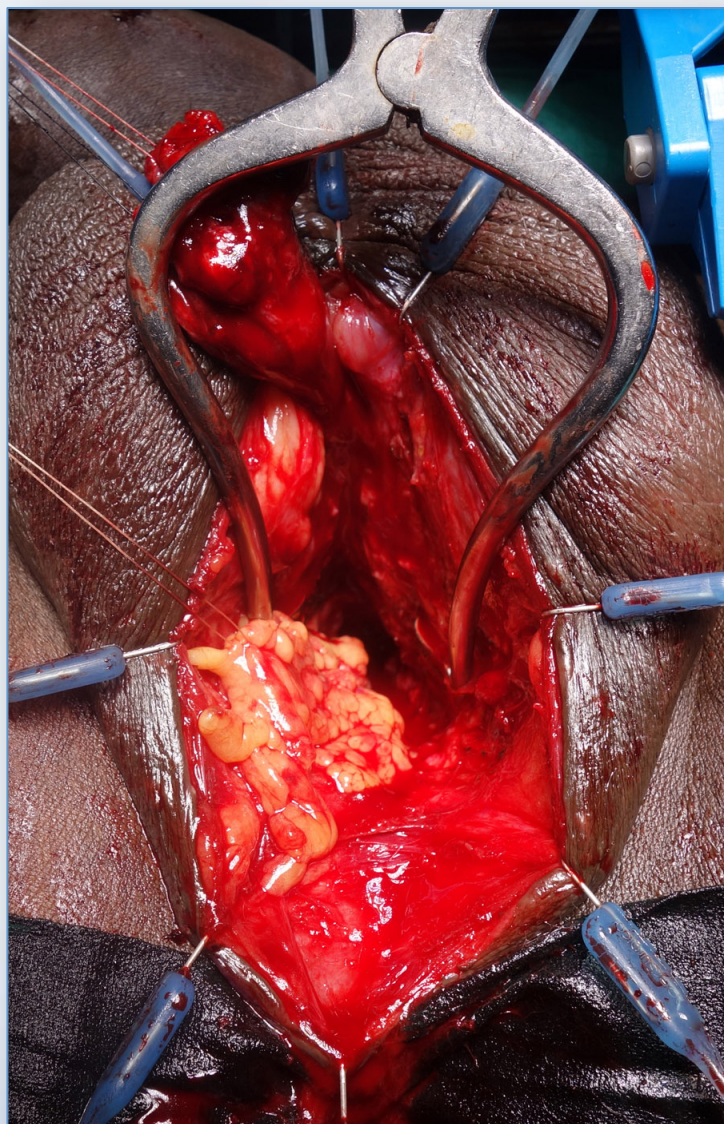
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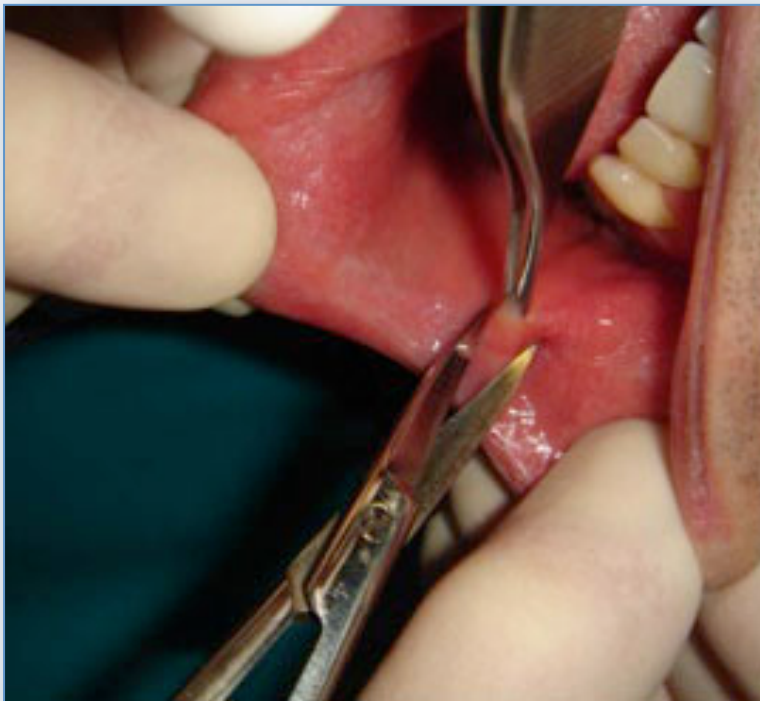
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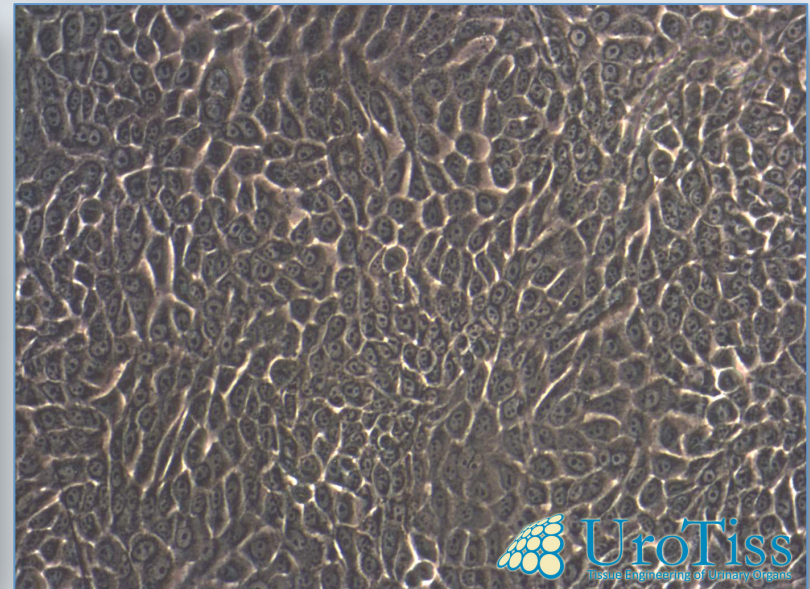
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# Urethroplasty using tissue engineered oral mucosa



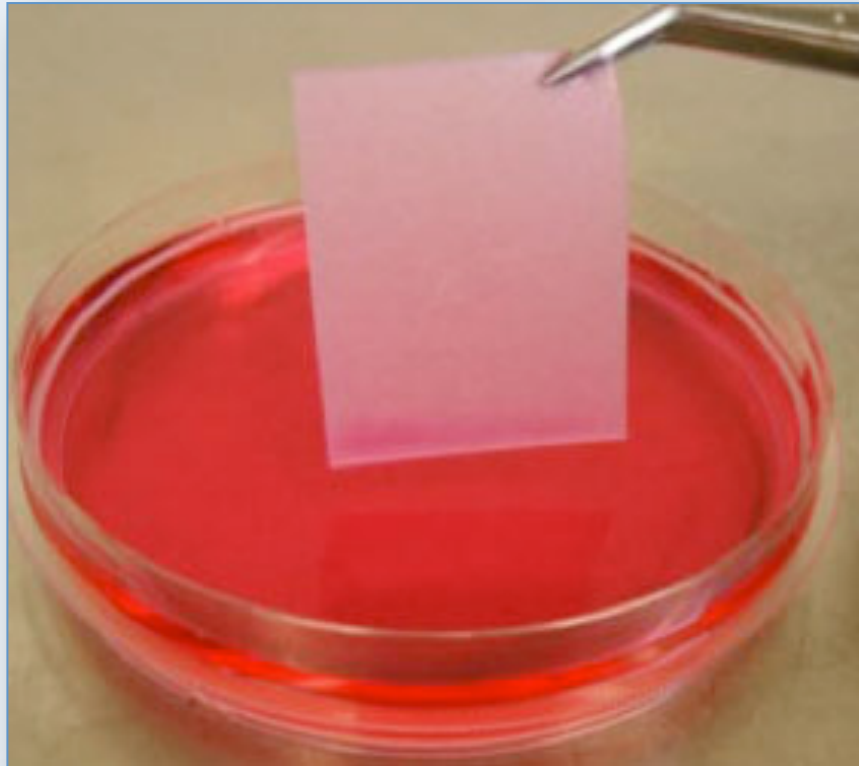
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**In the GMP laboratory, the oral cells were expanded and cultured on the surface of a biocompatible scaffold**

# MukoCell



**3 weeks later**



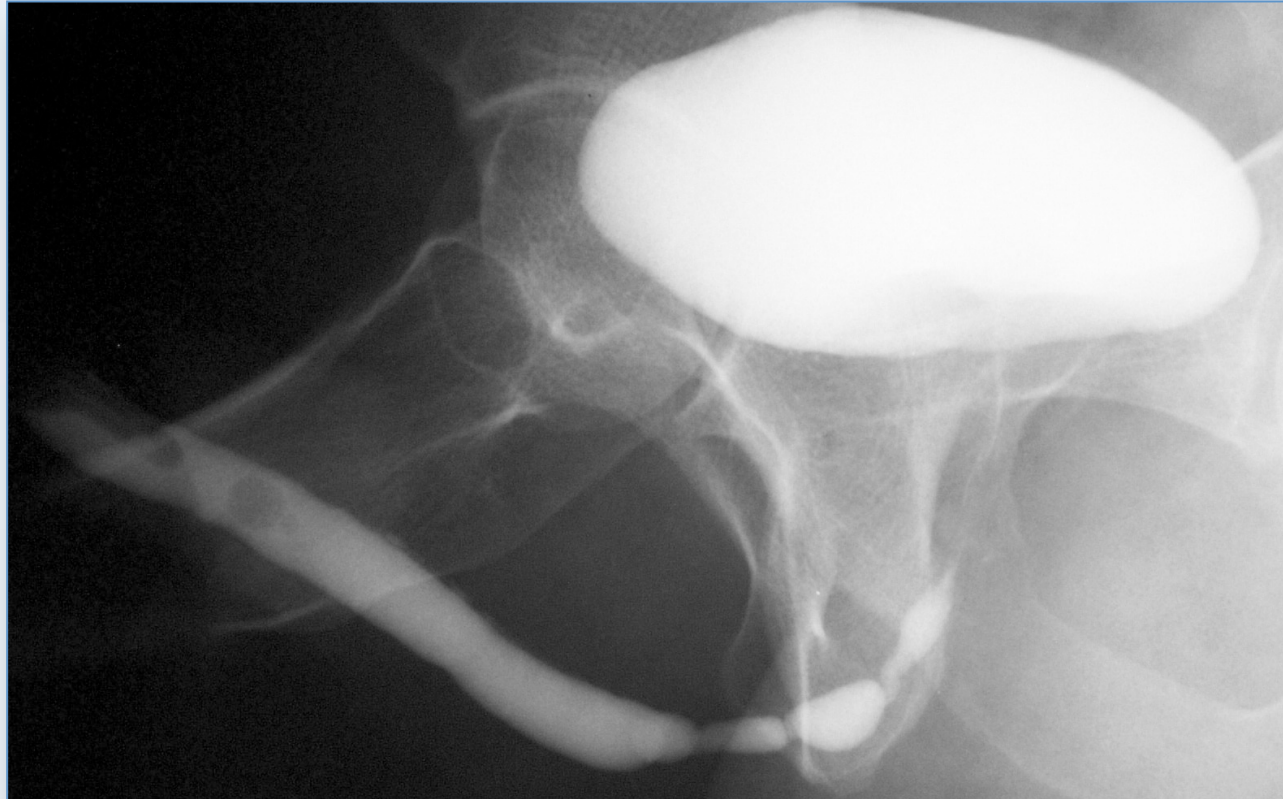
**48 hours for transplant**



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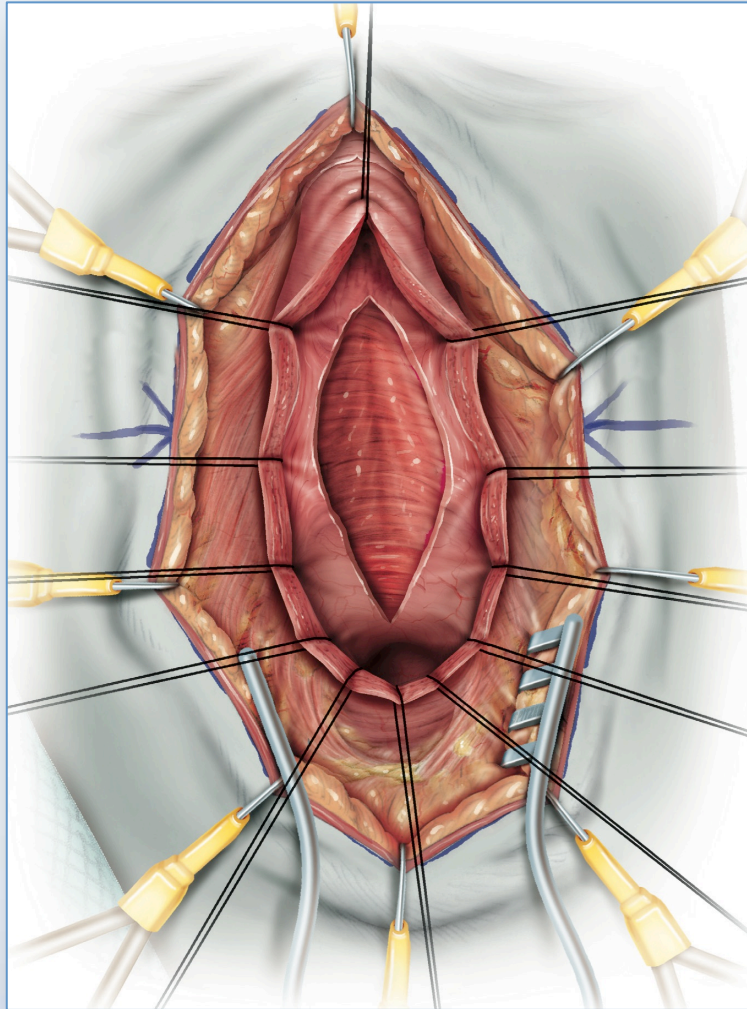




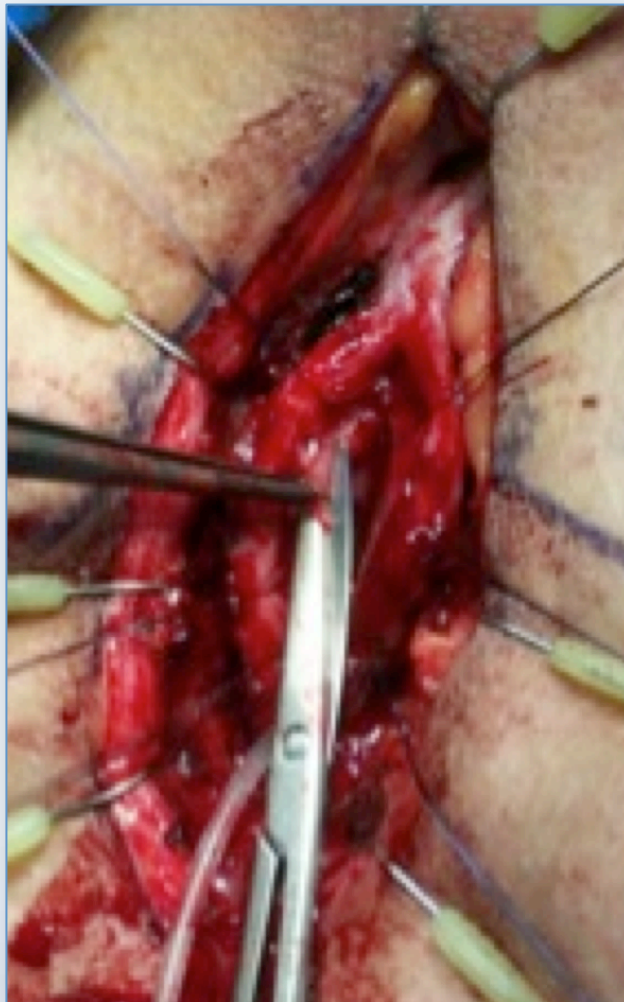
**On this preliminary phase of the study we decided to include only patients with bulbar urethral stricture ranging from 2 to 6 cm in length. The aim of our preliminary study was investigating the safety, feasibility and effectiveness of MukoCell in urethral reconstruction.**



# Dorsal inlay technique



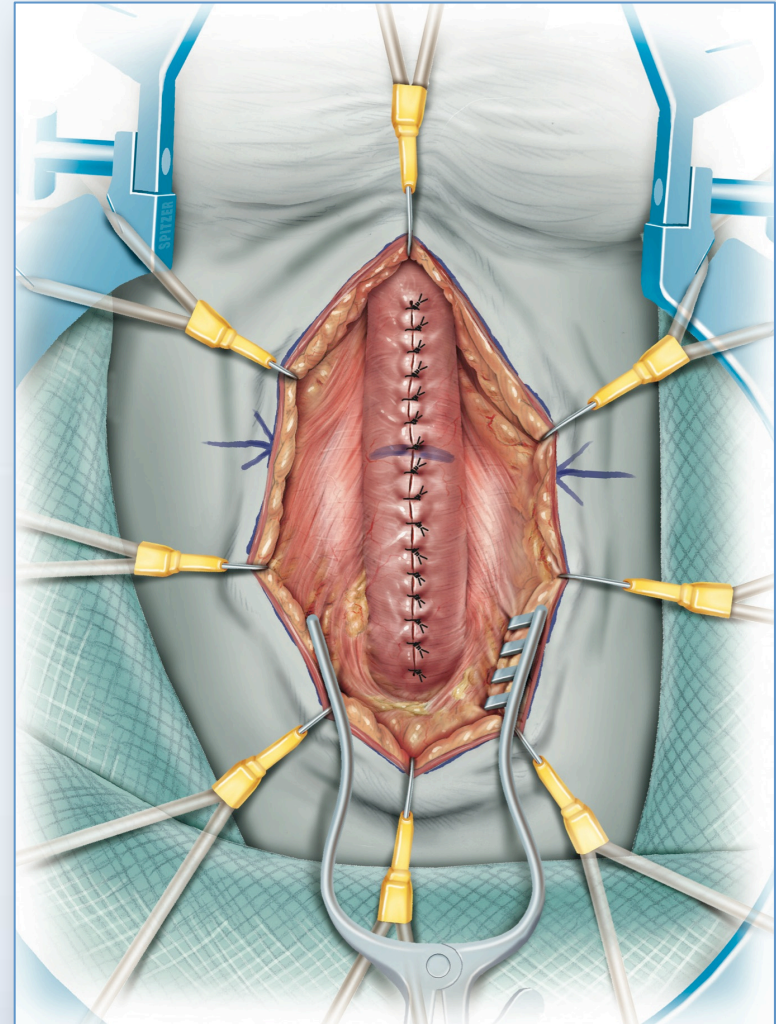
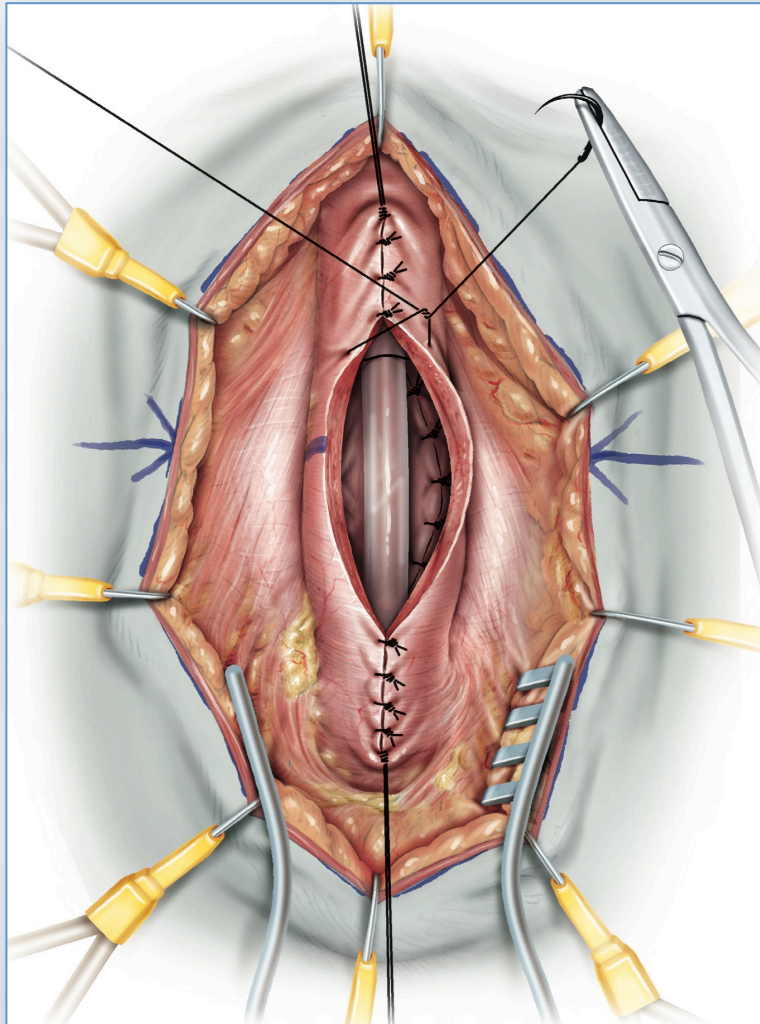
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# Dorsal inlay technique



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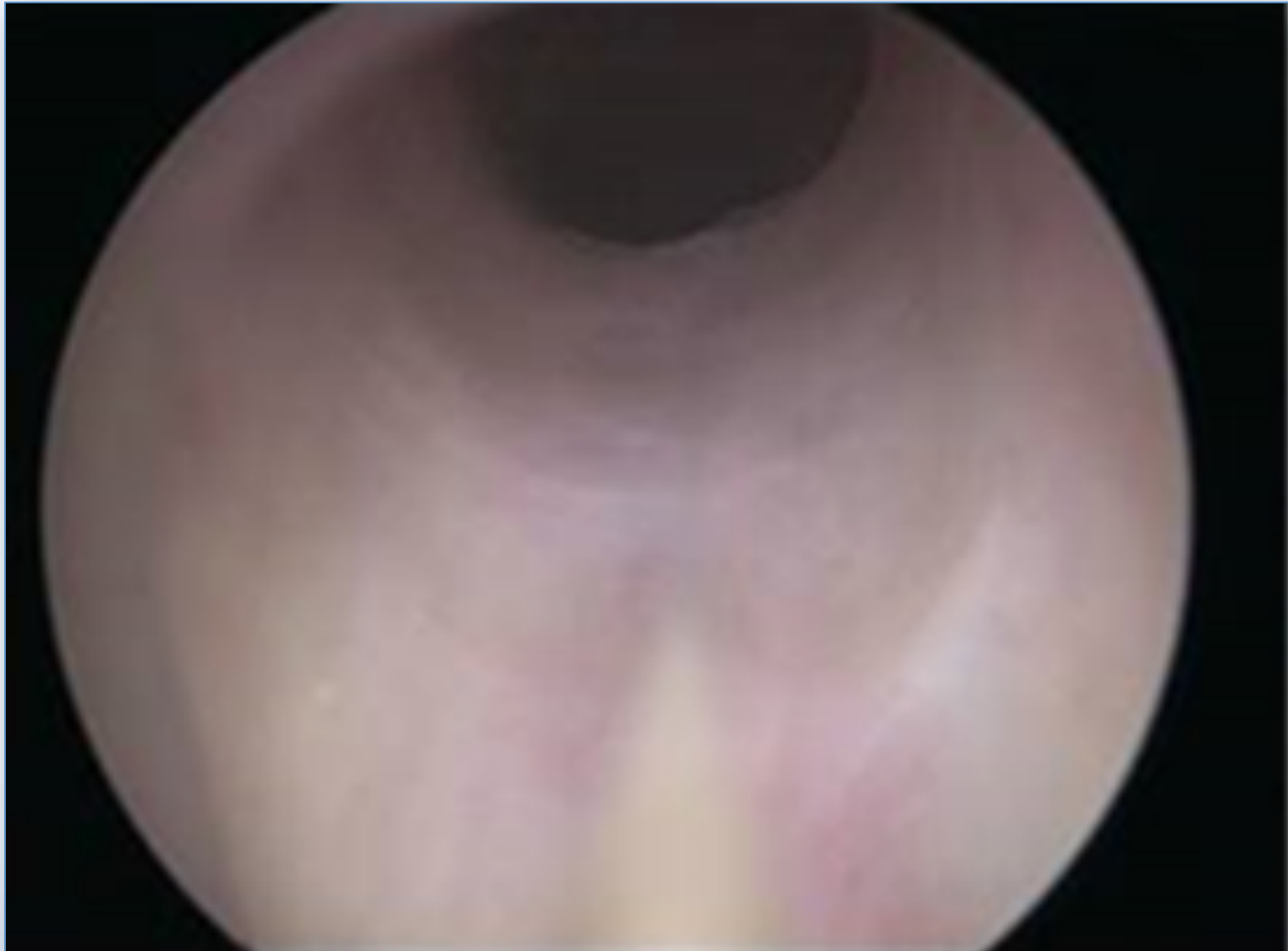
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