

CENTER FOR RECONSTRUCTIVE URETHRAL SURGERY



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Arezzo - Italy

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Websites: www.uretra.it
www.urethralcenter.it



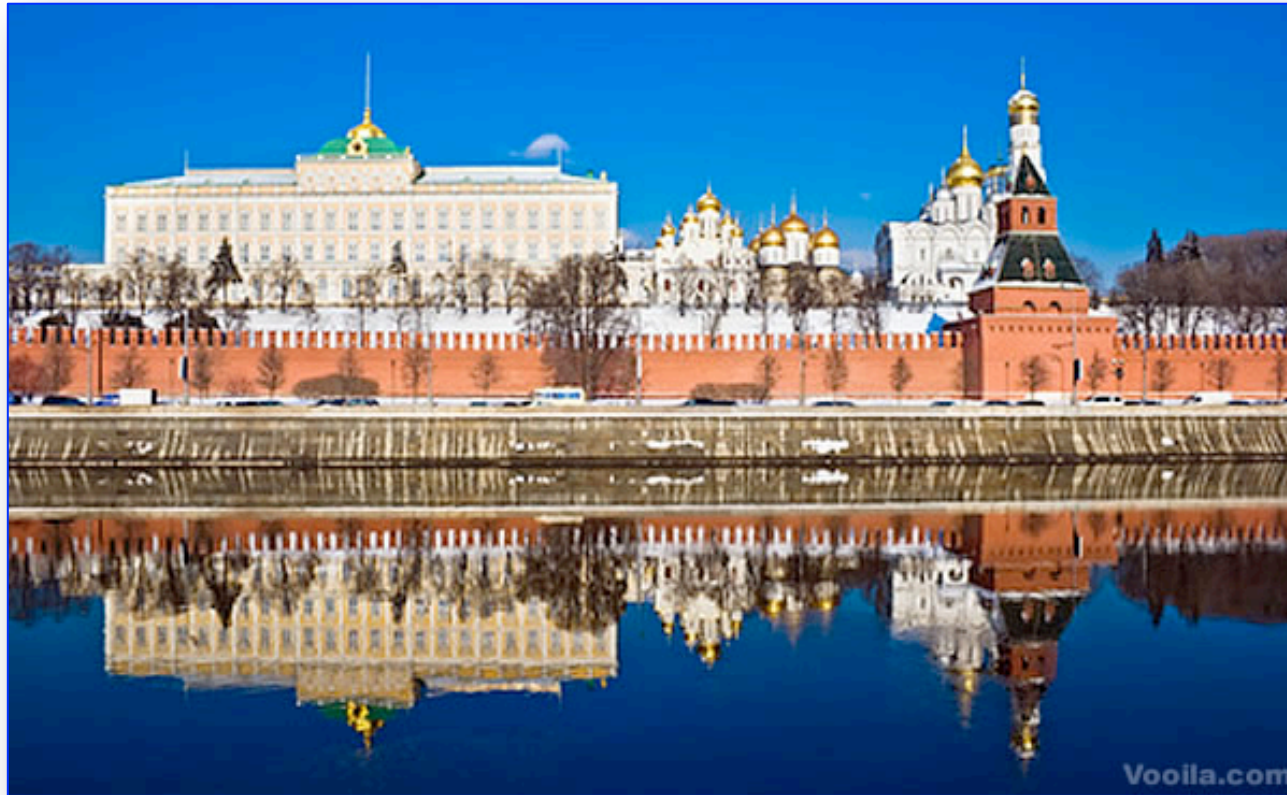
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*ADVANCED EDUCATIONAL COURSE ON:
Urethral Strictures and Reconstruction*



Moscow – Russia
June 18 – 19, 2015

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History and Evolution of the Urethral Surgery

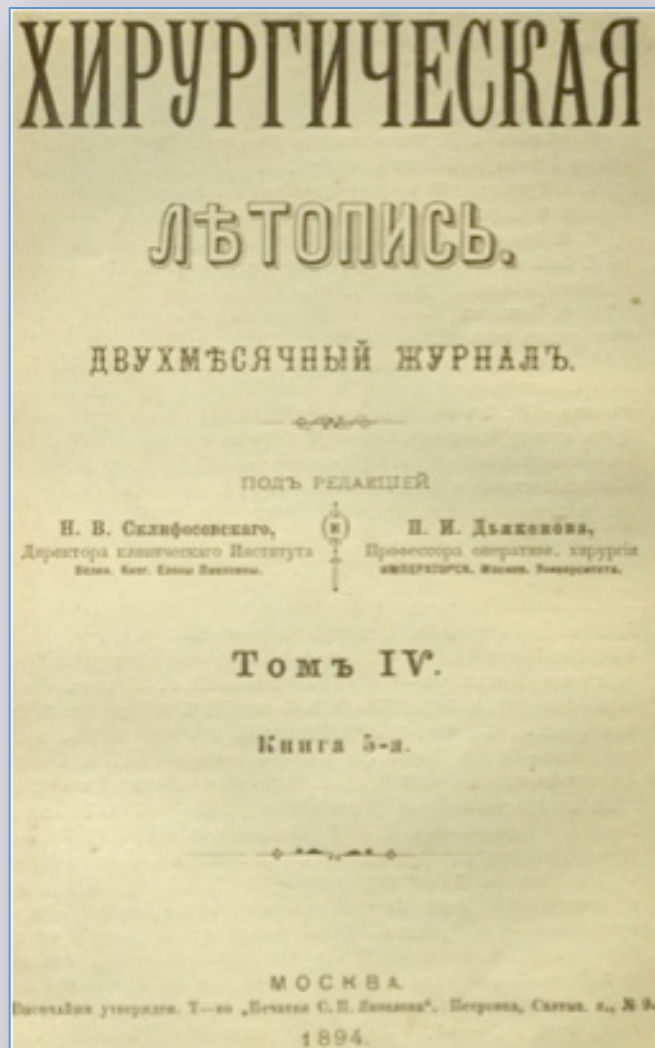
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The most important ancestor of the modern urethral surgery



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



къ лѣченію дефектовъ уретры путемъ пересадки слизистой оболочки¹⁾).

Прим.-доц. К. Савелько.

Несмотря на успѣхи современной хирургіи, лѣченіе крупныхъ дефектовъ мочепускательнаго канала до сихъ поръ остается еще вопросомъ мало разработаннымъ. А между тѣмъ, уже благодаря одному тому, что клиницисту нерѣдко приходится встрѣчать эту форму болѣзни, вопросъ о лѣченіи дефектовъ уретры имѣетъ большія права на наше вниманіе.

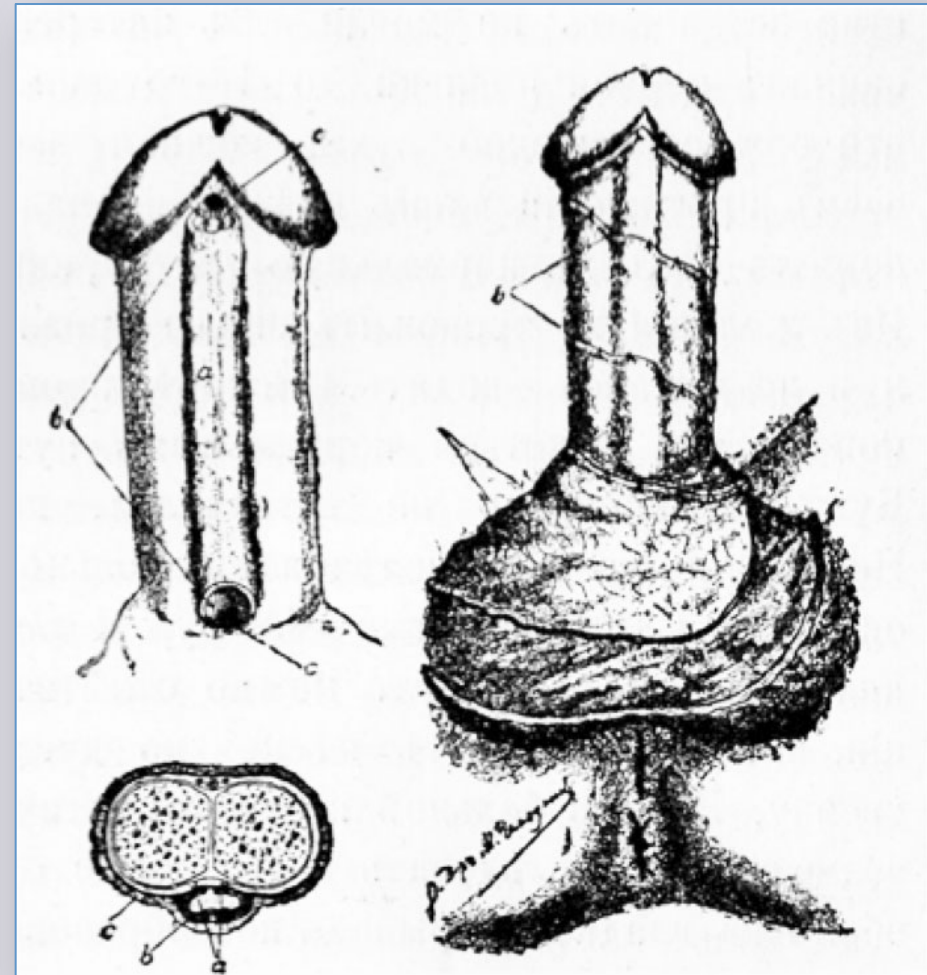
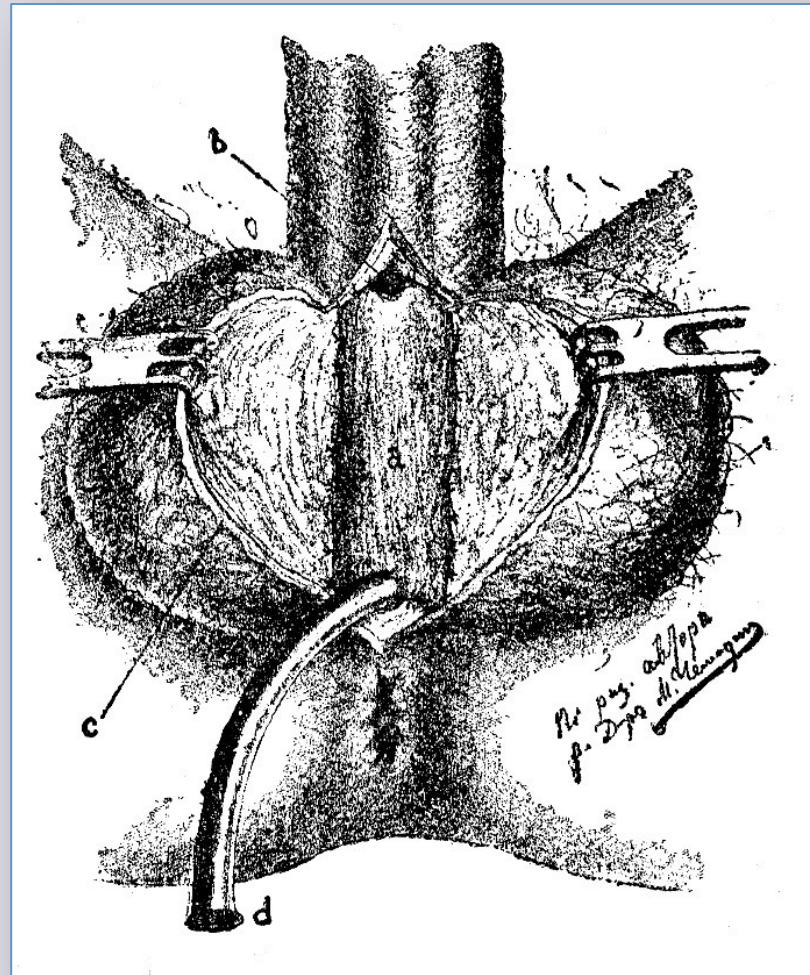
Мы имѣемъ двѣ главныхъ группы дефектовъ уретры: а) врожденные, куда относятся суженія, заращенія канала, гипоспадія, эписпадія, и б) приобретенные. Последніе являются слѣдствіемъ многихъ и весьма разнообразныхъ причинъ: разнообразныя травмы, но чаще язвенный и гангренозный процессъ даютъ безконечное число разновидностей этого заболѣванія, чѣмъ такъ богата казуистическій матеріалъ специальной литературы.

Въ тѣхъ случаяхъ, гдѣ мы имѣемъ полное отсутствіе слизистой оболочки мочепускающ. канала на извѣстномъ ея протяженіи, и гдѣ имѣется, слѣдовательно, полная непроходимость канала, — мы находимся почти въ полной невозможности возстановить нормальную проходимость канала, и образованіе надежнаго искусственнаго свища обыкновенно является цѣлью нашего вмѣшательства; но даже и радикальное лѣченіе нѣкоторыхъ формъ суженій, т. е. такихъ дефектовъ уретры, гдѣ отсутствуетъ только часть слизистой оболочки, выступающей окружности канала, нерѣдко представляетъ большія затрудненія. Благодаря блестящей разработкѣ растаженія, а также внутренней и наружной уретротоміи, въ настоящее время мы съ большимъ успѣхомъ можемъ излѣчивать даже самыя узкія суженія, но подъ условіемъ, чтобы длина ихъ не имѣла очень большого протяженія. Но разъ длина дефекта слизистой возрастаетъ, въ той же степени возрастаютъ и затрудненія въ лѣченіи подобныхъ суженій и, наконецъ, коренное излѣченіе обширныхъ мозолистыхъ суже-

¹⁾ Сообщено на международномъ съѣздѣ въ Раві.

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

1890 - 1891 - 1893



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

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

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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Cairo - Egypt

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0022-5347/93/1492-0276\$03.00/0

THE JOURNAL OF UROLOGY

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Vol. 149, 276-278, February 1993

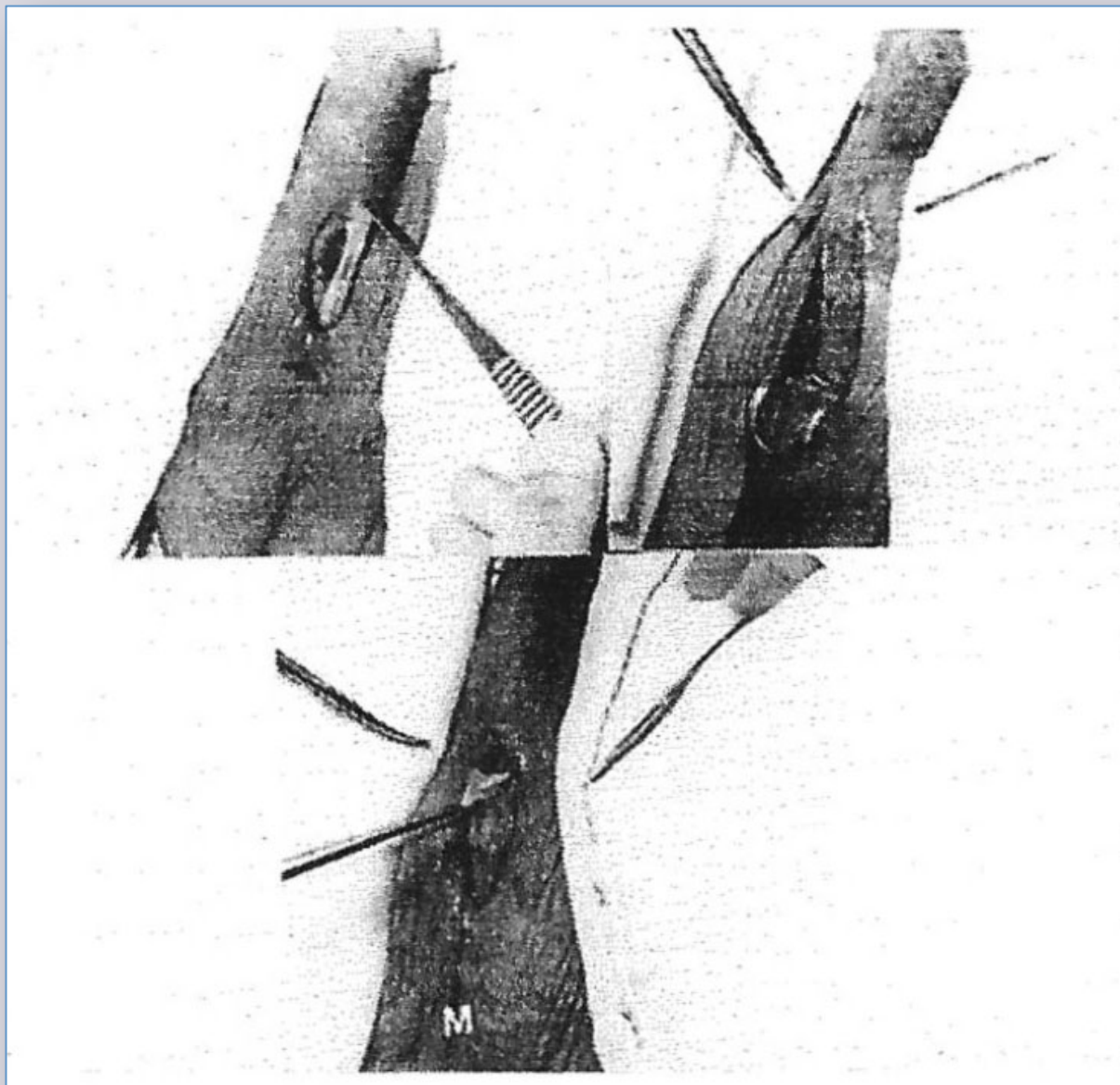
Printed in U.S.A.

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
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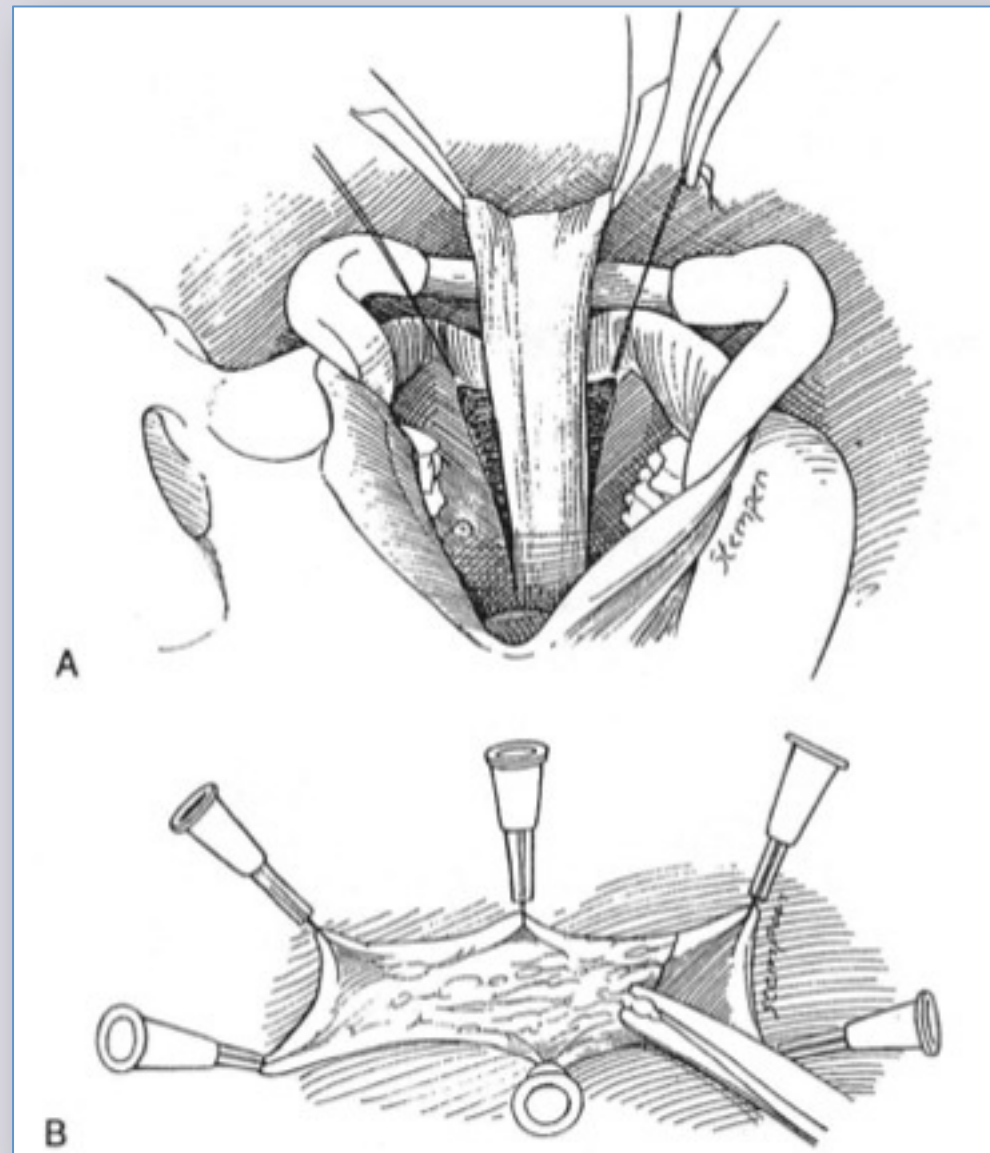
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www.urethralcenter.it

Ventral onlay graft urethroplasty

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

0022-5347/96/1551-0123\$03.00/0

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Vol. 155, 123-126, January 1996

Printed in U.S.A.

DORSAL FREE GRAFT URETHROPLASTY

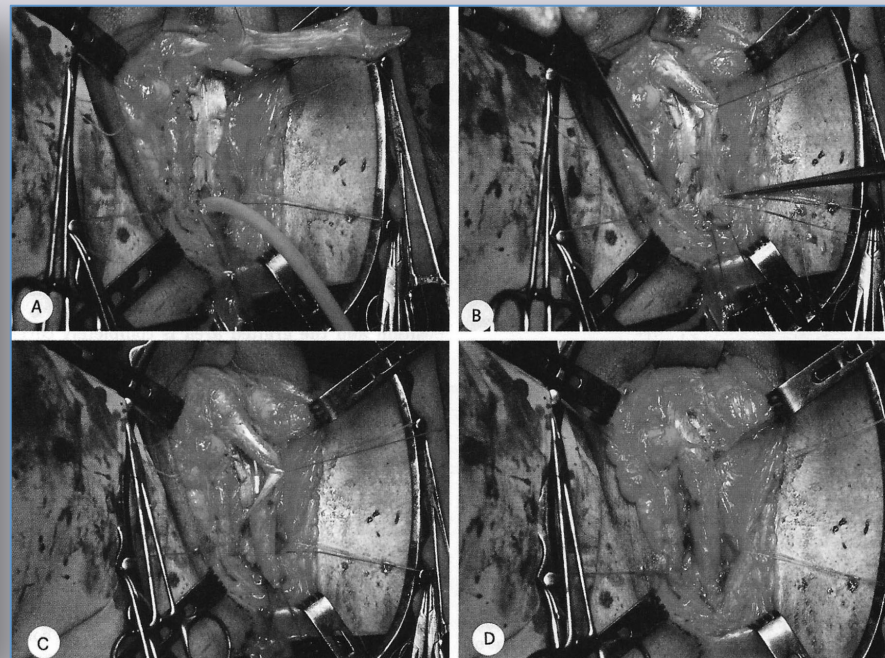
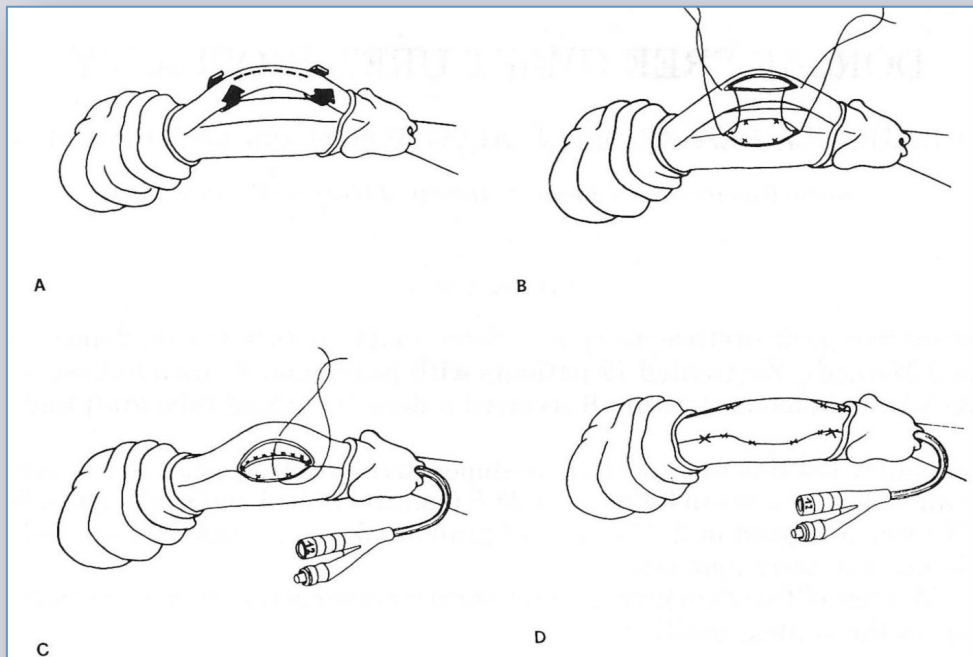
GUIDO BARBAGLI, CESARE SELLI, ALDO TOSTO AND ENZO PALMINTERI

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

Two-stage penile urethroplasty



Bengt Johanson
Stockholm -Sweden

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www.urethralcenter.it

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.

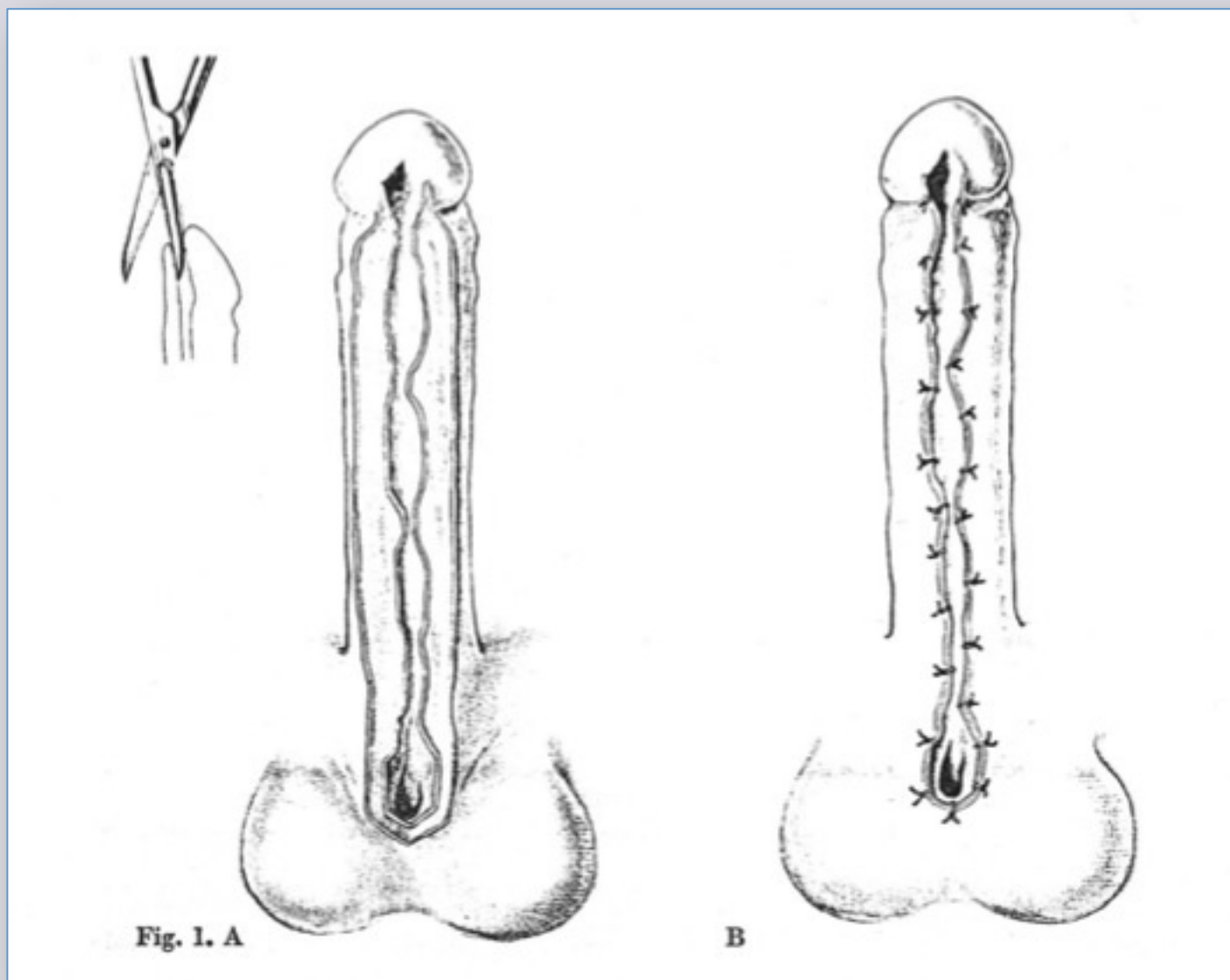
RECONSTRUCTION
OF THE MALE URETHRA IN STRICTURES

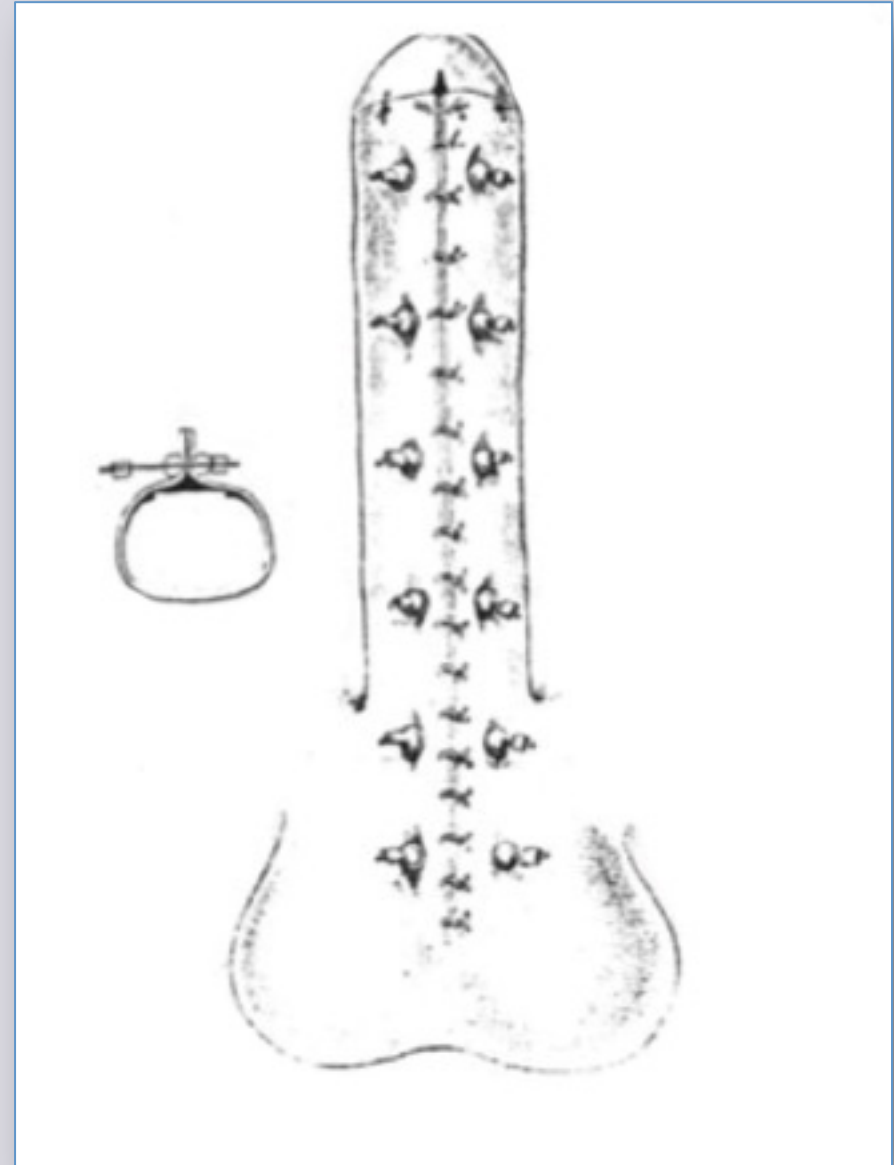
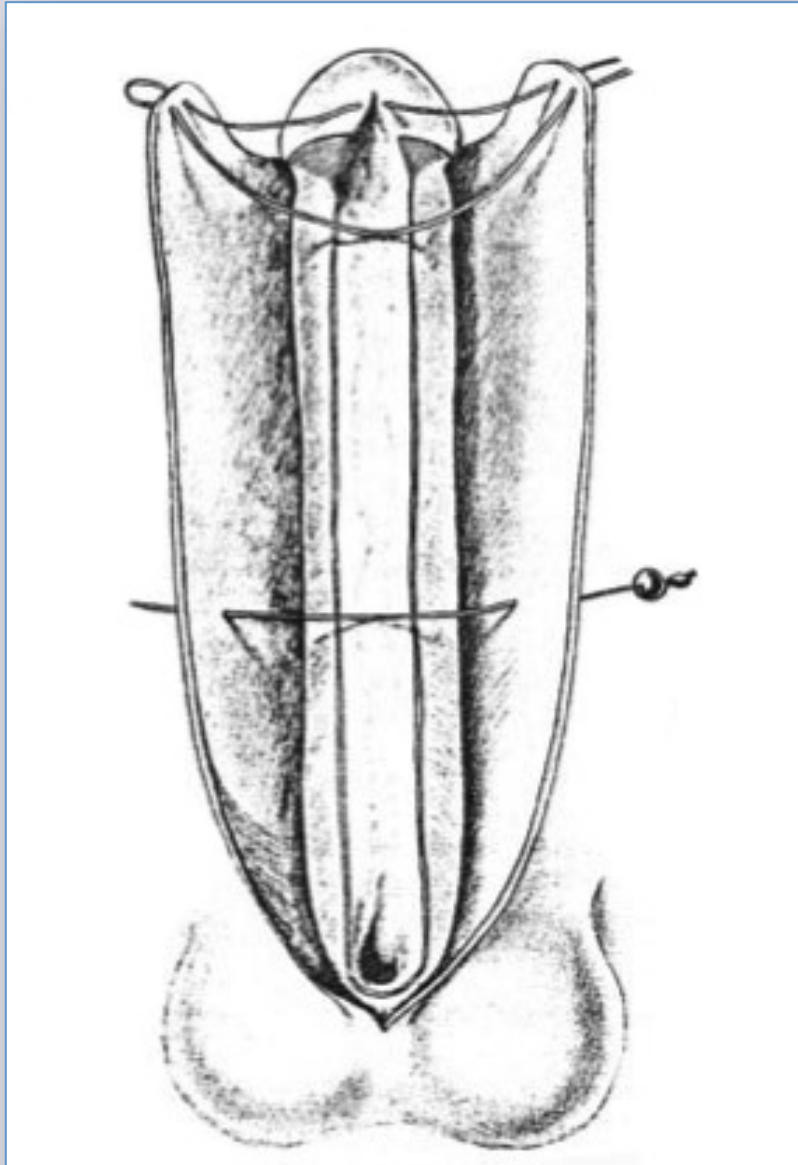
*Application of the Buried Intact
Epithelium Technic*

By

BENGT JOHANSON

Acta Chir Scand, 1953: 176; 5-89





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

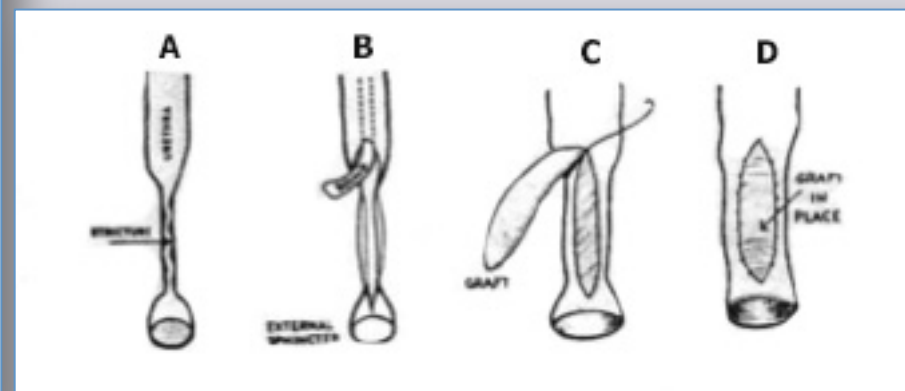
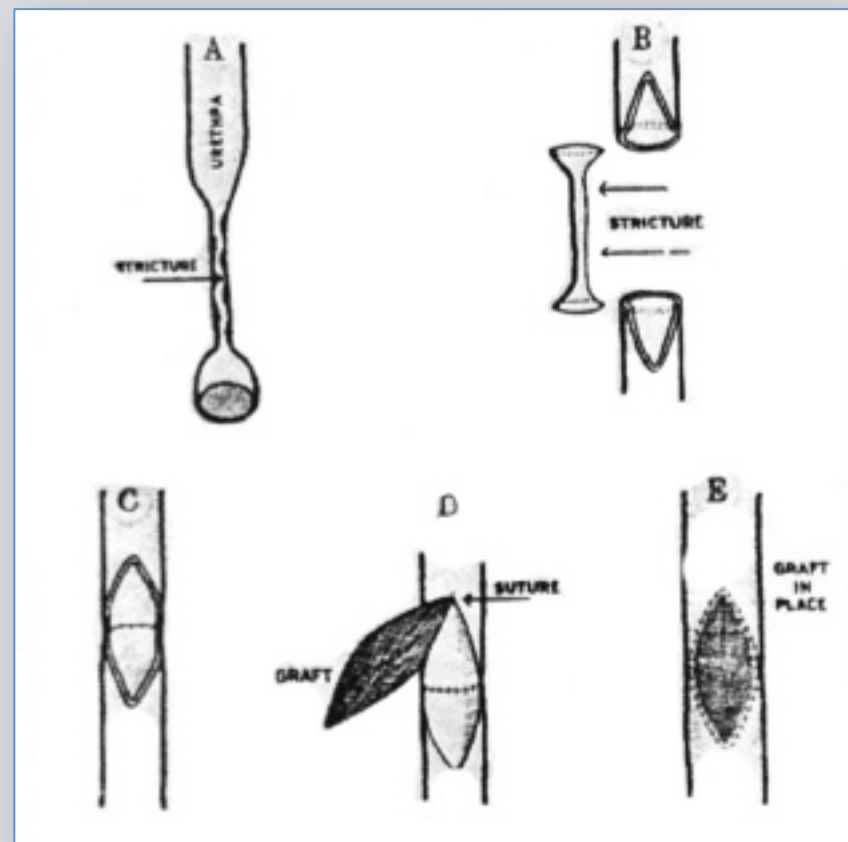
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USE OF FULL THICKNESS SKIN GRAFTS IN REPAIR OF URETHRAL STRICTURES

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





Richard T. Turner-Warwick
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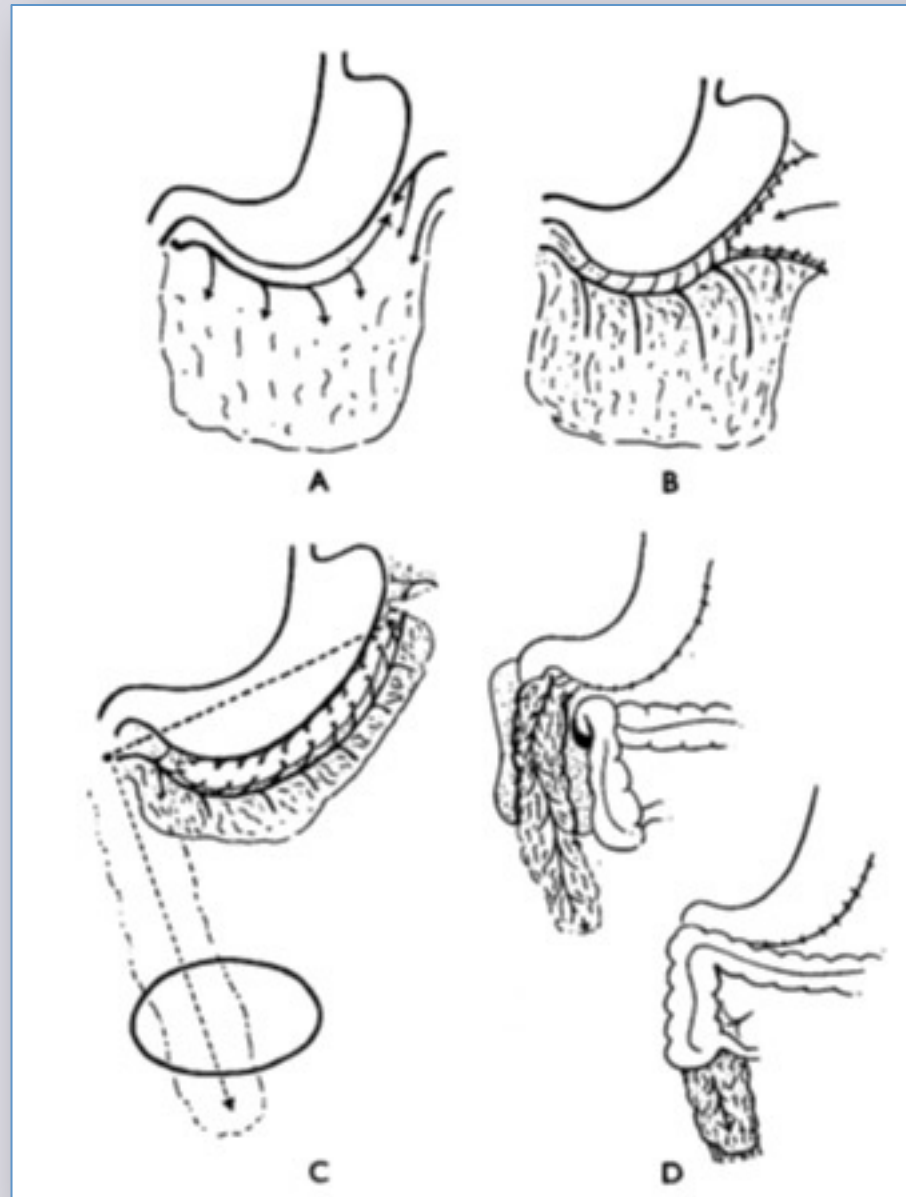
Websites: www.uretra.it
www.urethralcenter.it

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



One-stage skin flap urethroplasty



Ahmad Orandi
Fergus Falls – Minnesota - USA

e-mail: info@urethralcenter.it

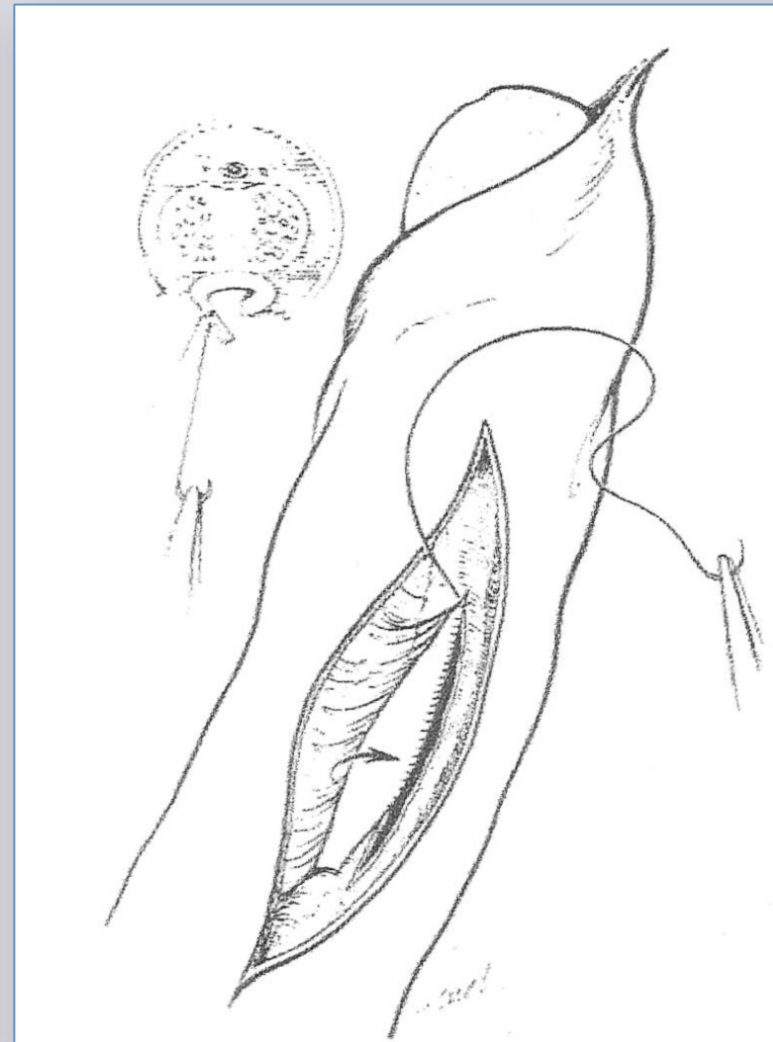
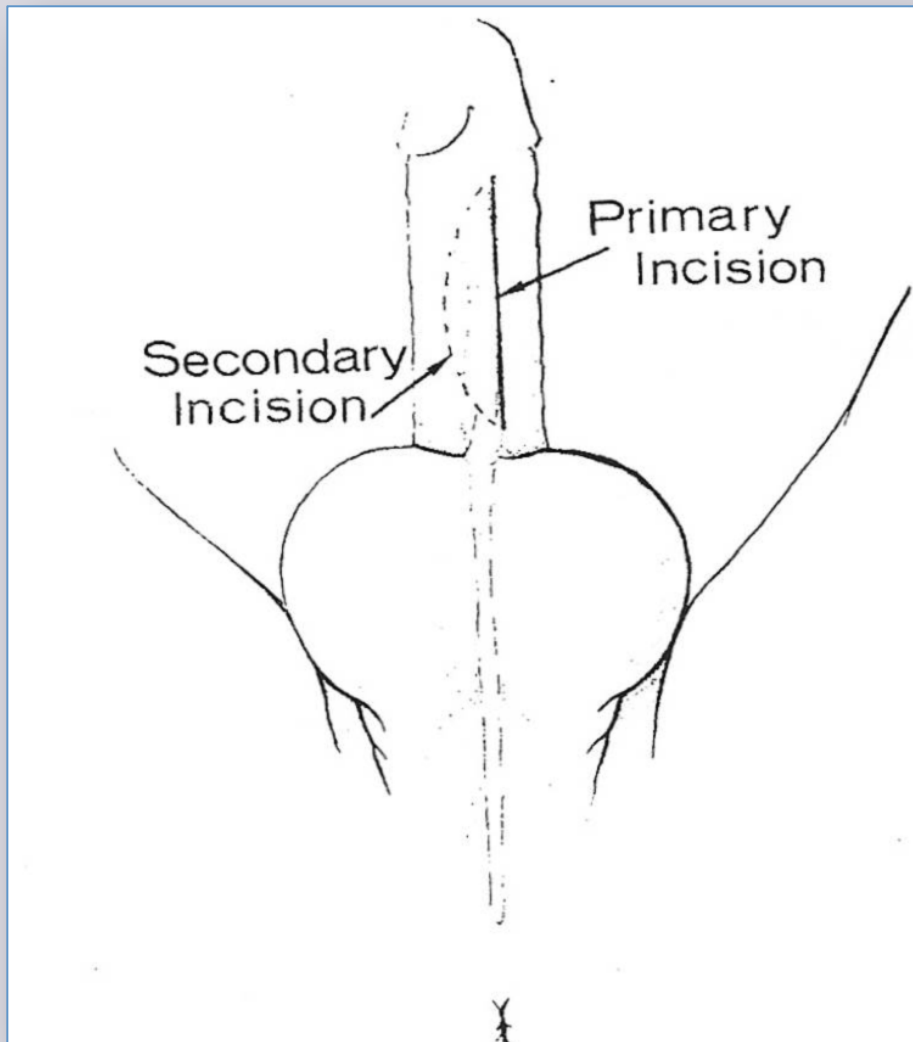
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www.urethralcenter.it

ONE-STAGE URETHROPLASTY ¹

By AHMAD ORANDI

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

Br J Urol 1968, 40: 717-719



Perineal urethrostomy



J. Peter Blandy
London - UK

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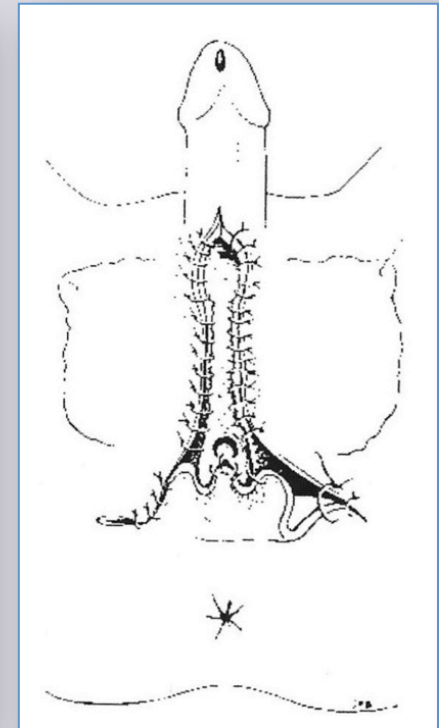
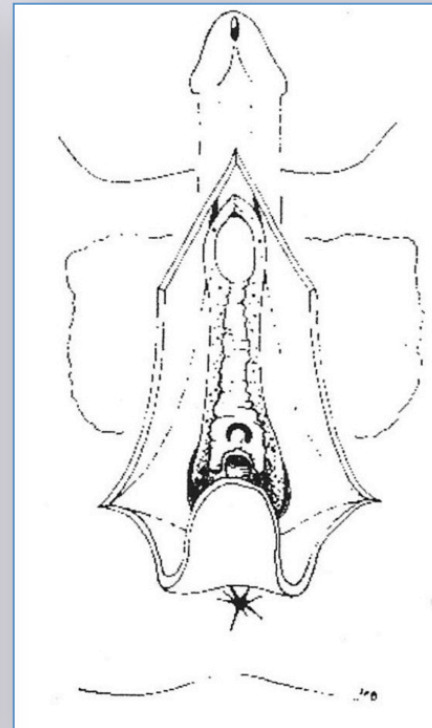
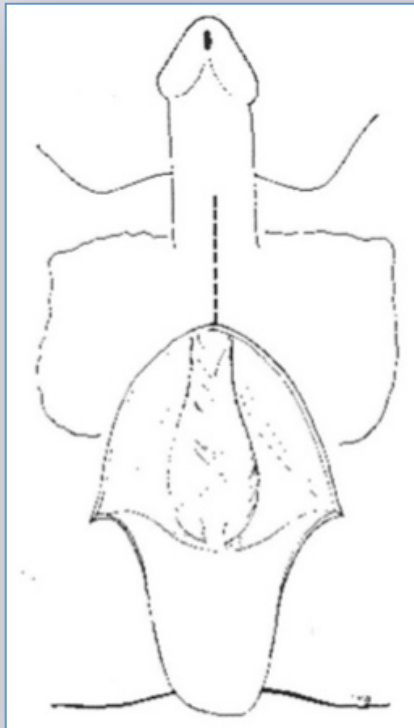
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URETHROPLASTY BY SCROTAL FLAP FOR LONG URETHRAL STRICTURES

**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



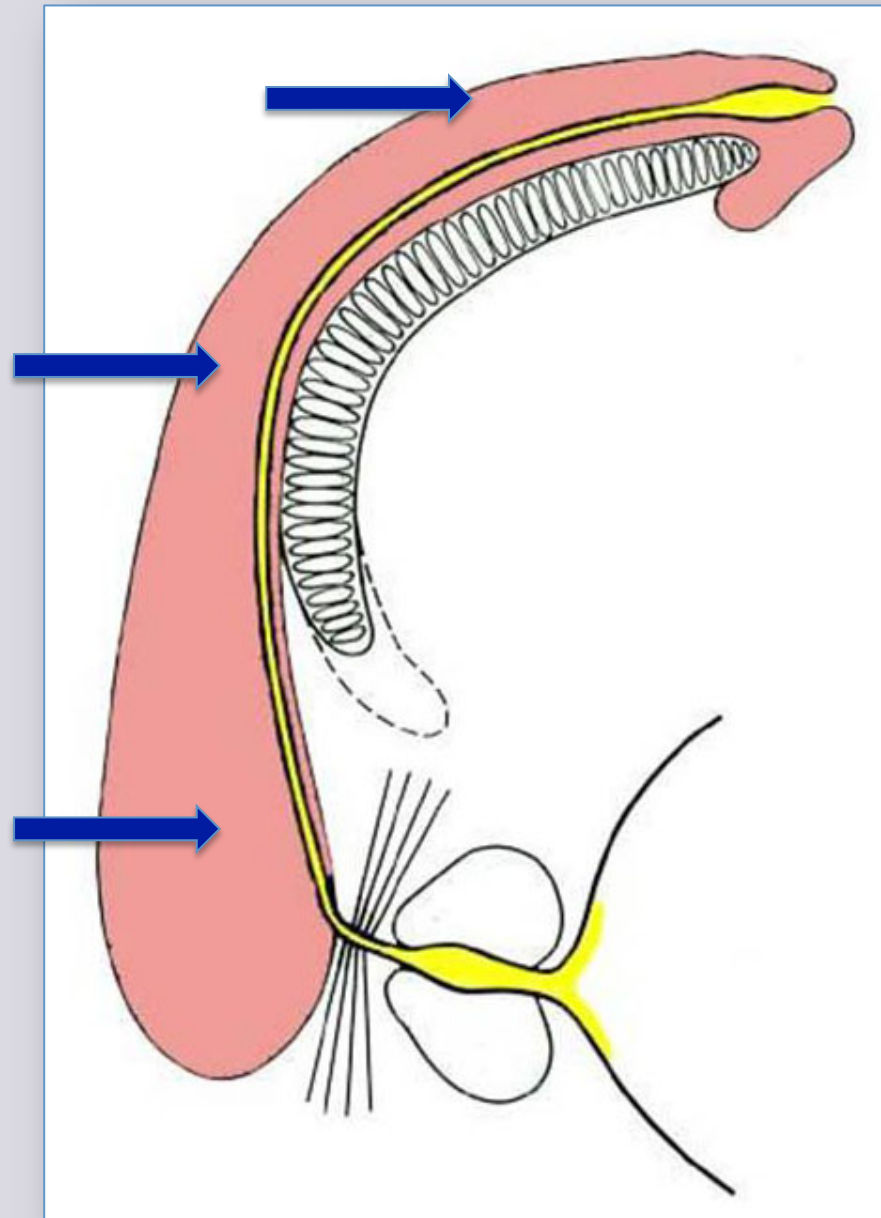
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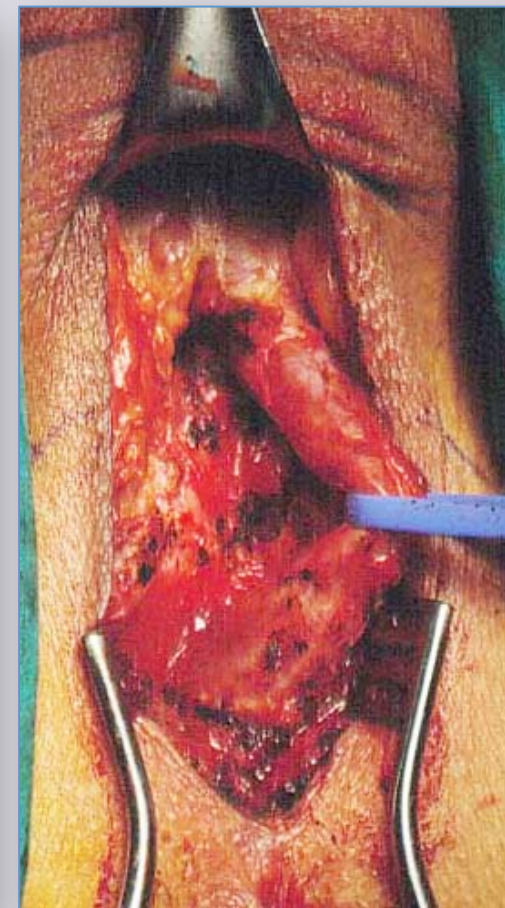
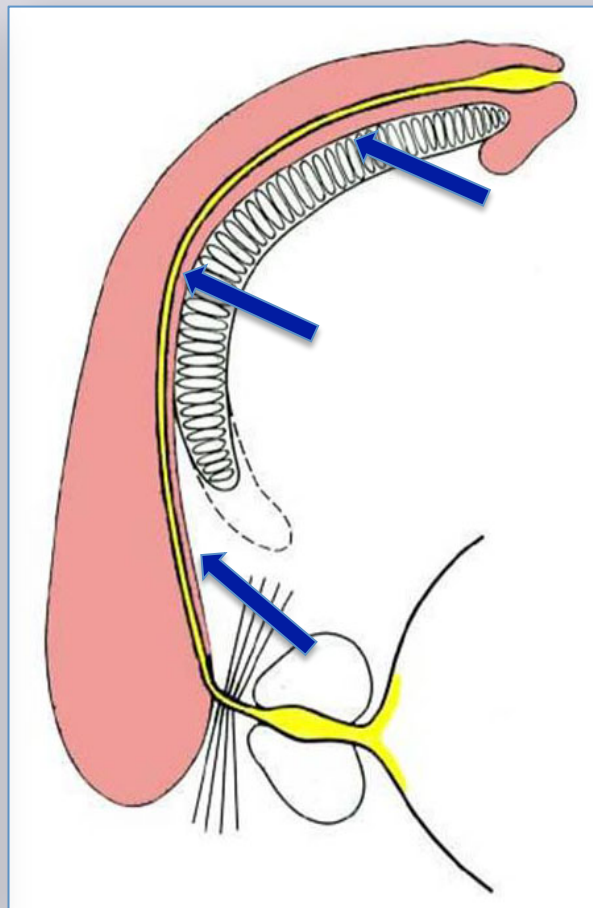
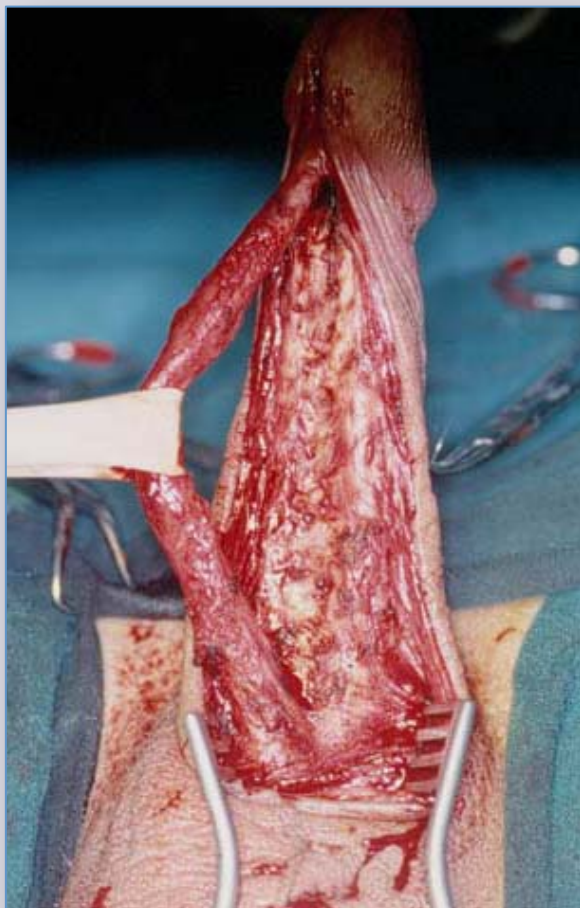
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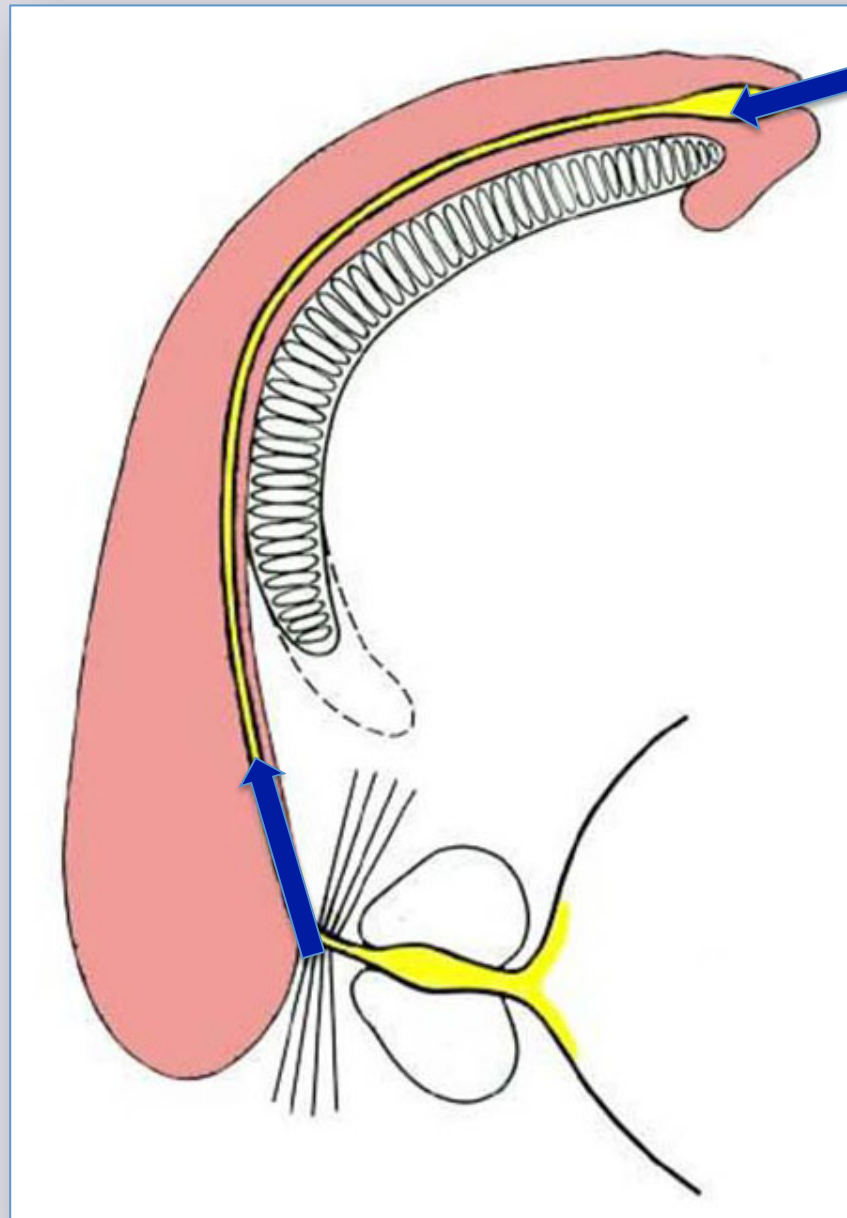
Evolution of the Urethral Surgery

New one-stage or two-stage surgical techniques based on the “dorsal” approach to urethral lumen.

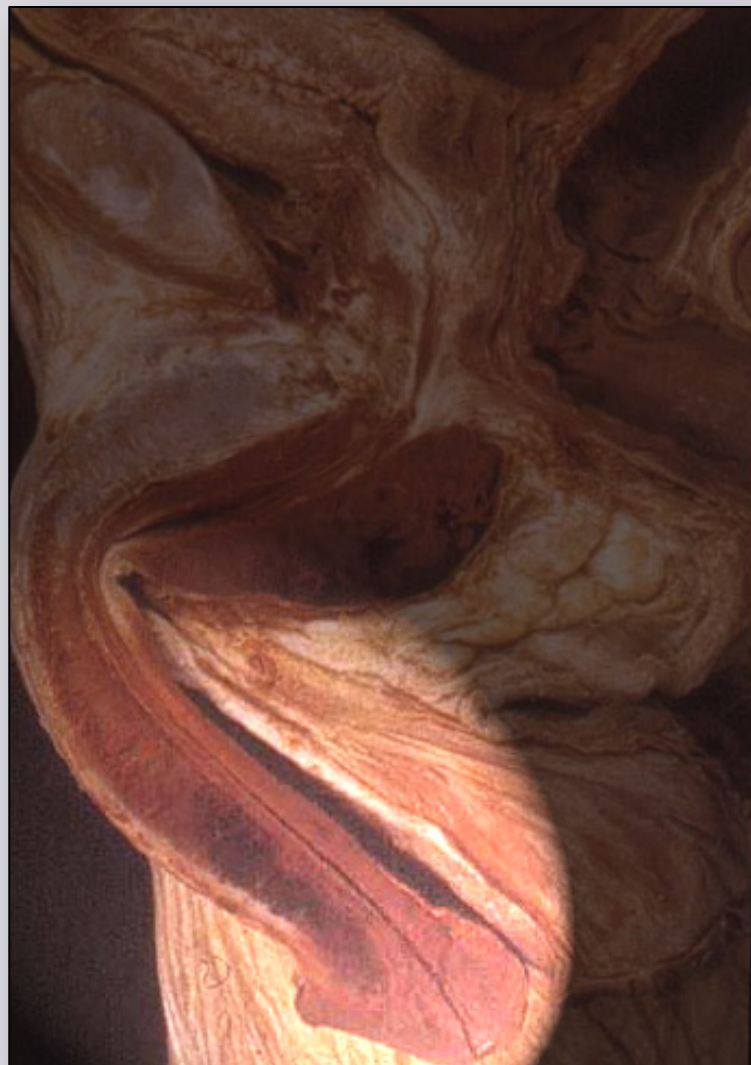
Reports of the results using multivariable statistical analysis.







Penile urethra

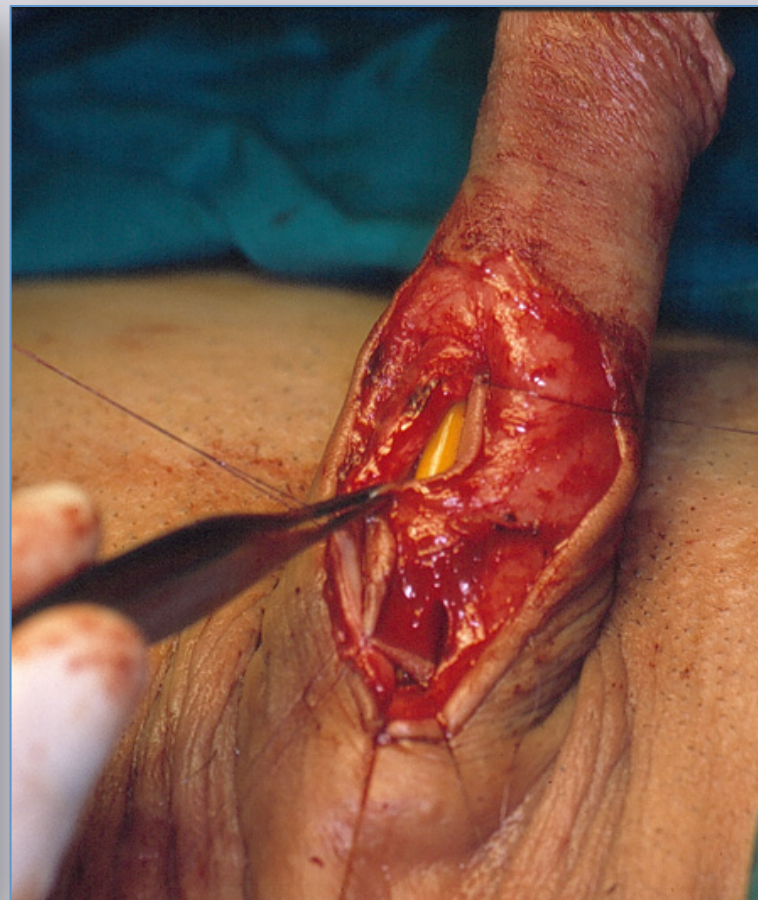
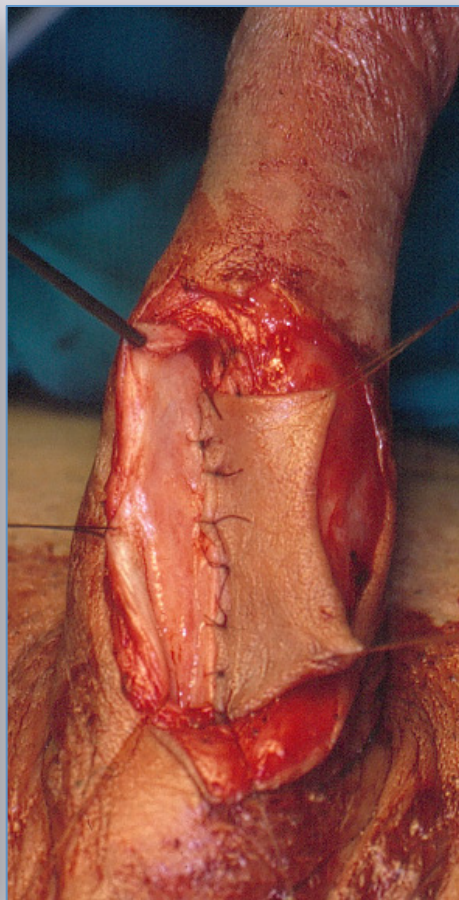
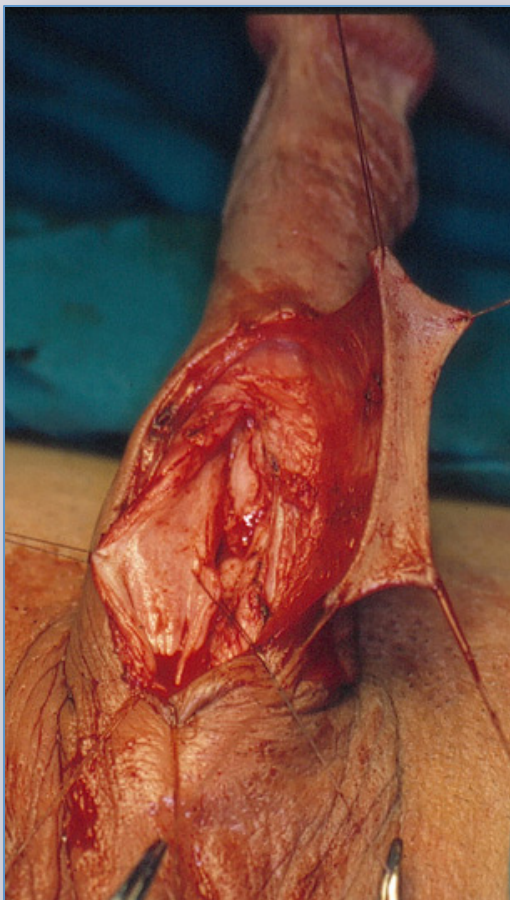


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CENTER FOR RECONSTRUCTIVE URETHRAL SURGERY

Orandi's one-stage skin flap urethroplasty



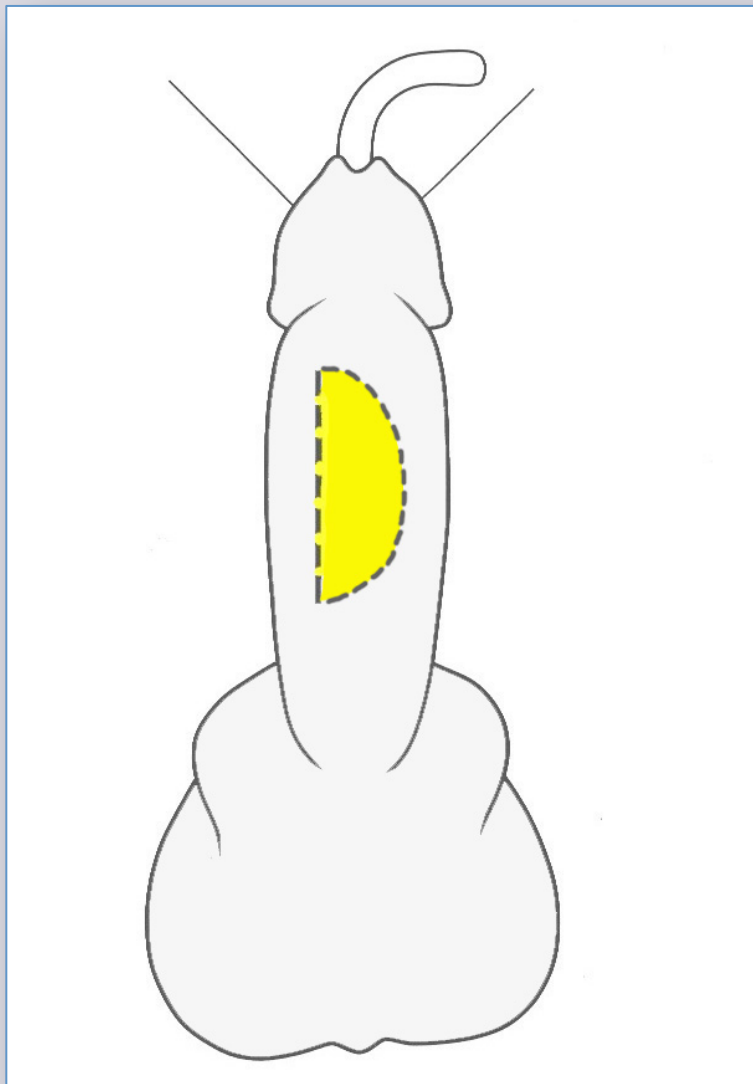


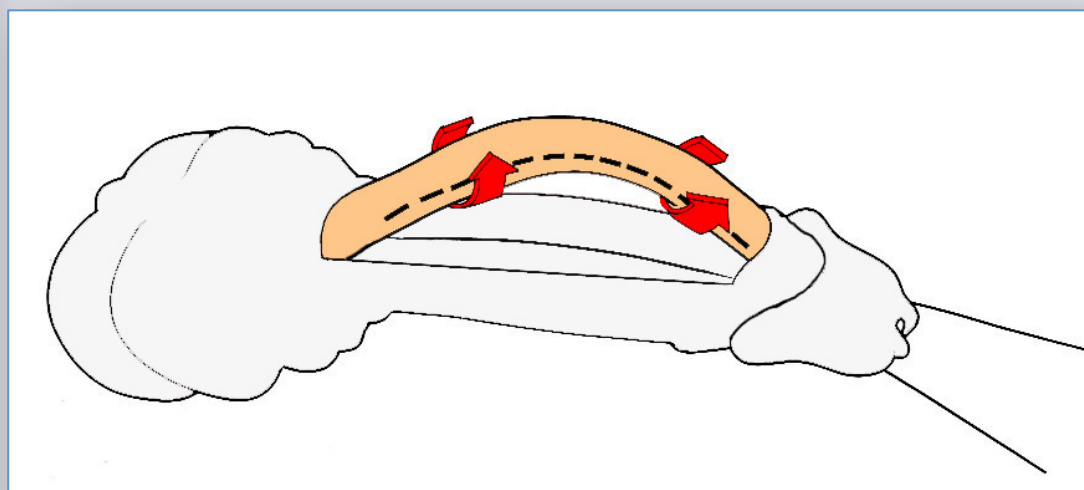
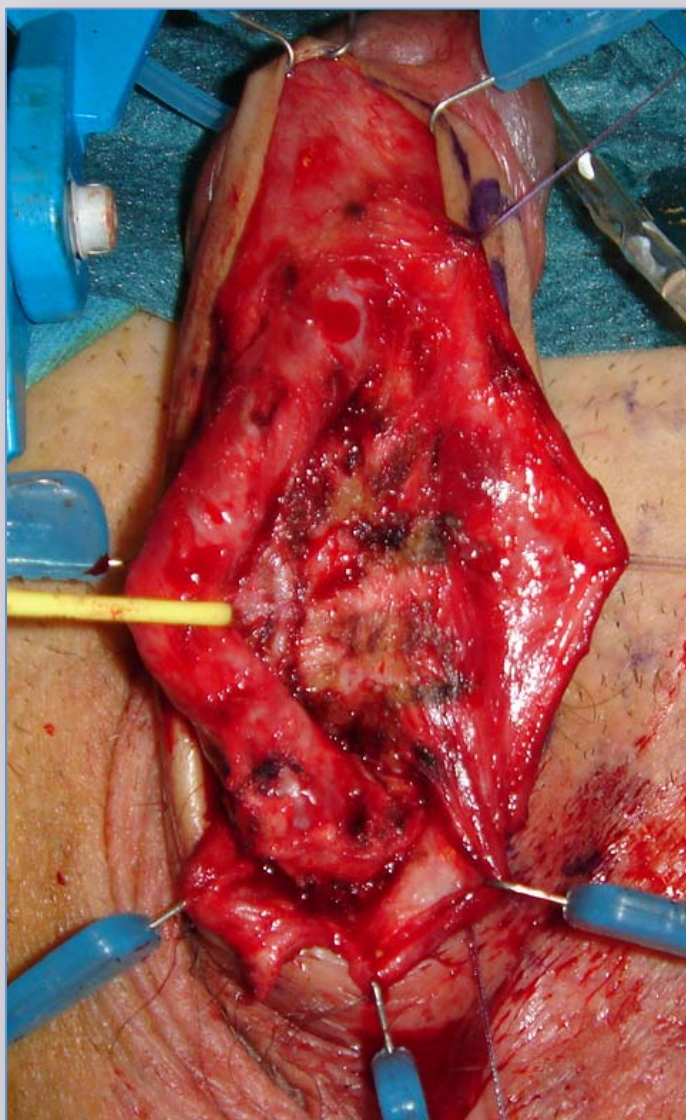
diverticulum



fistula

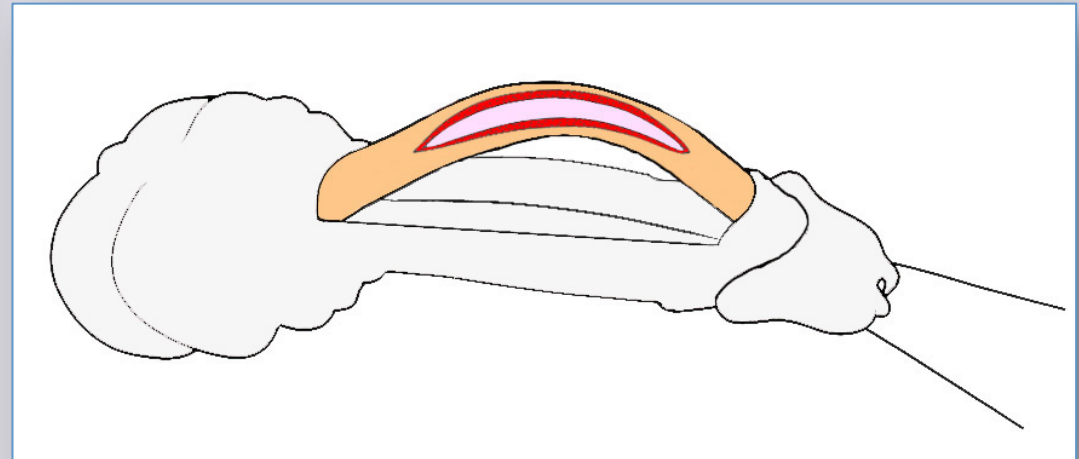
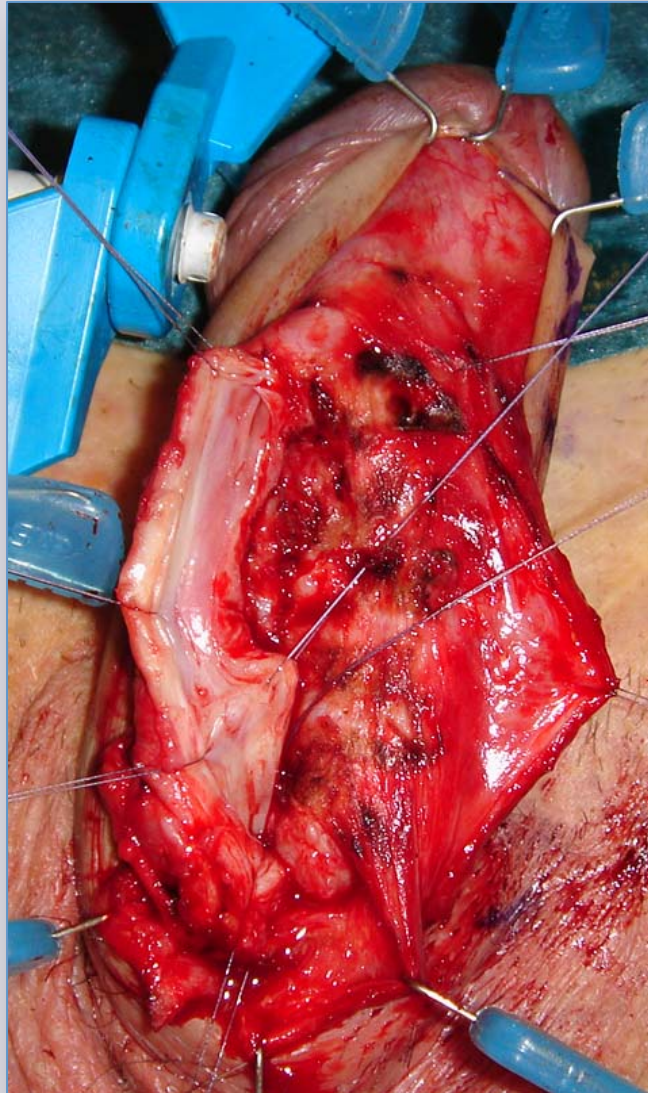
Modified Orandi's urethroplasty





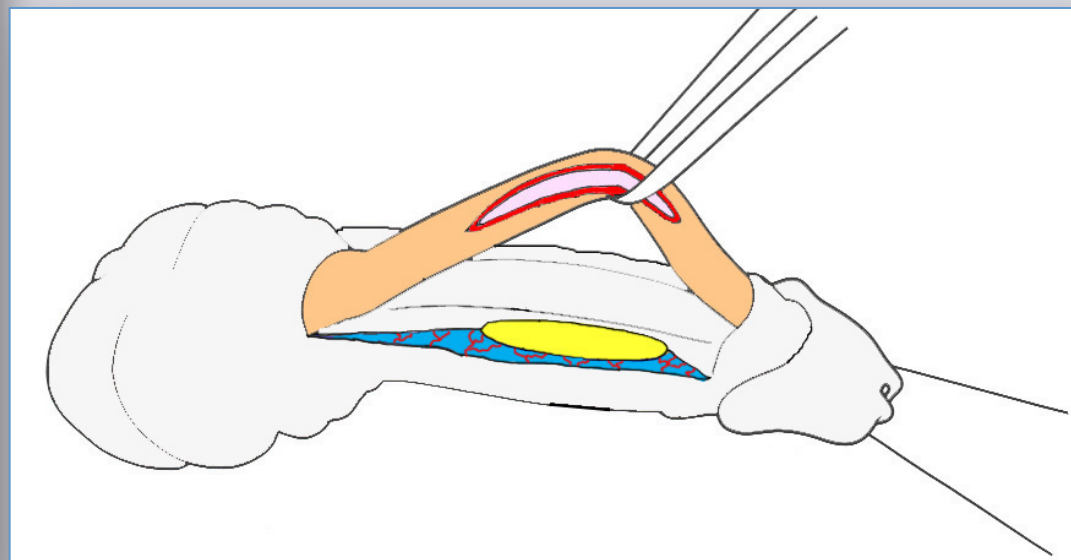
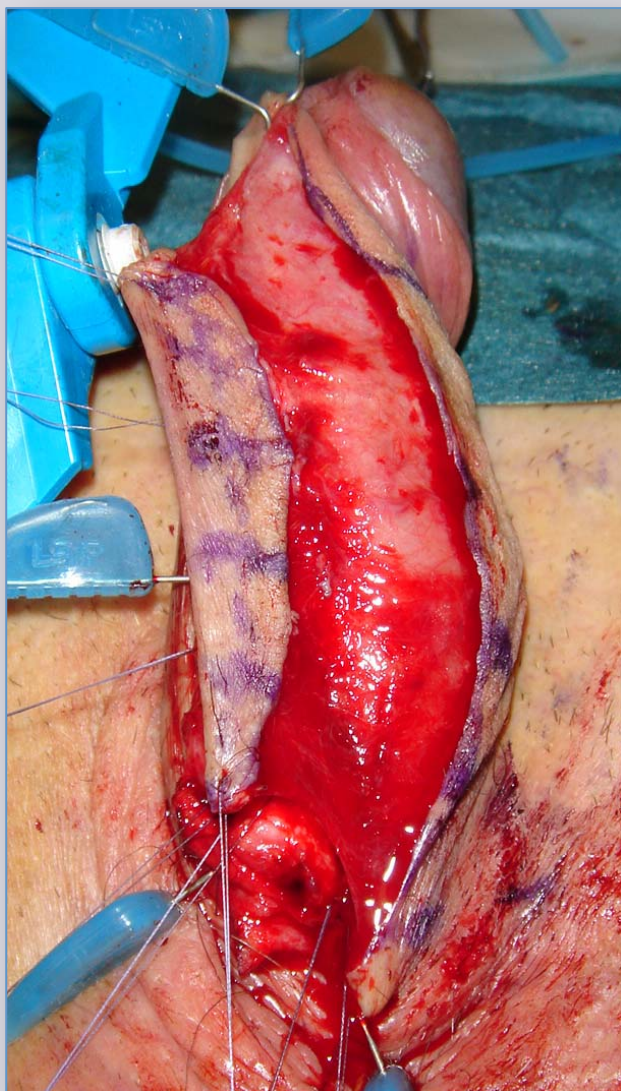
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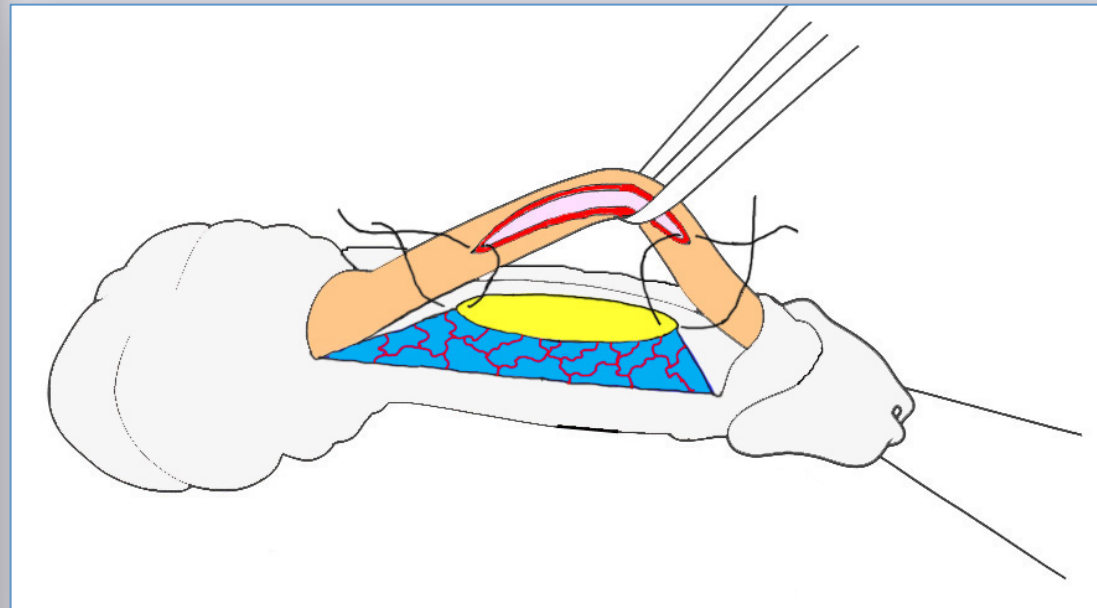
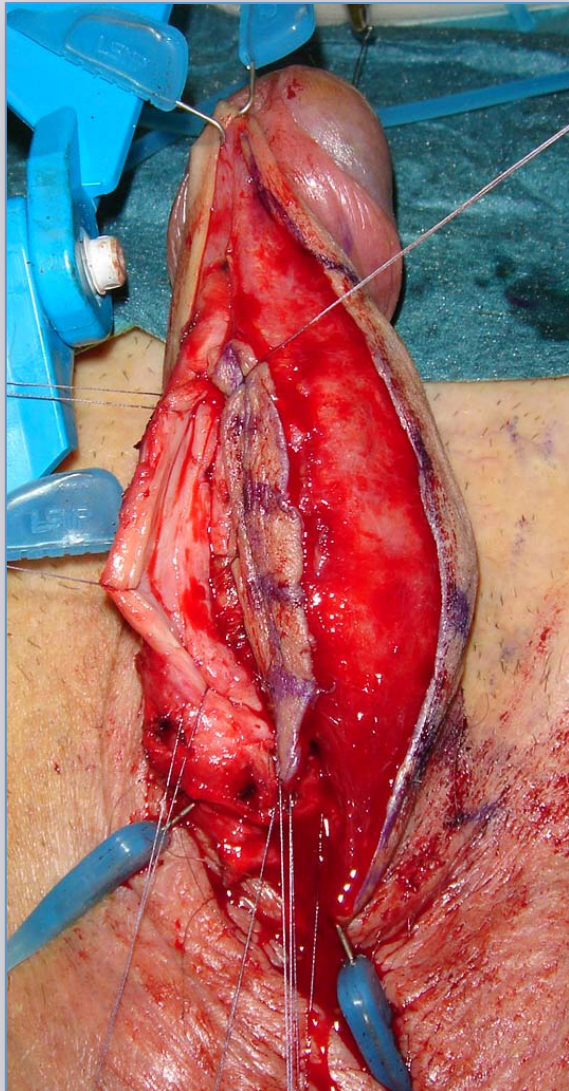
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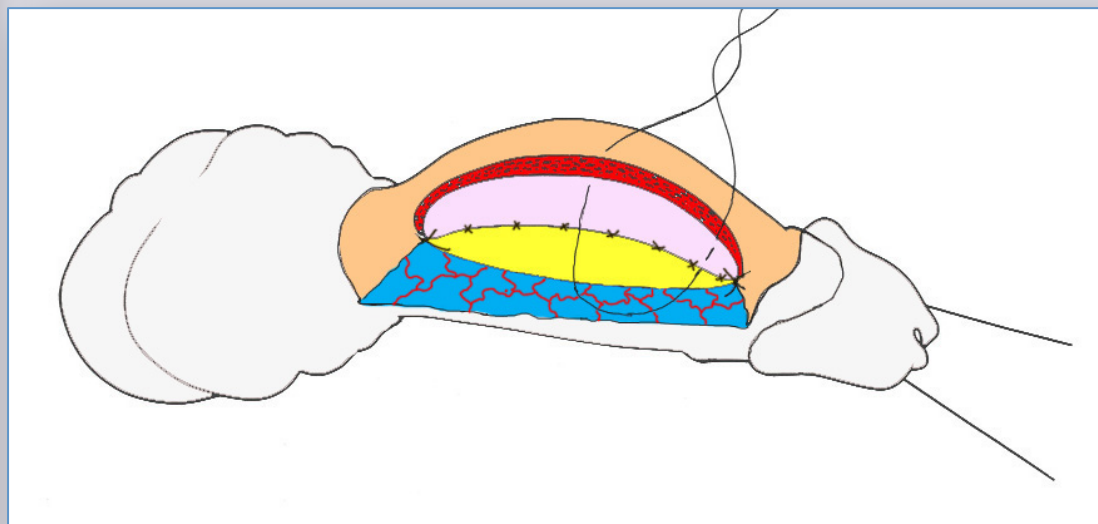
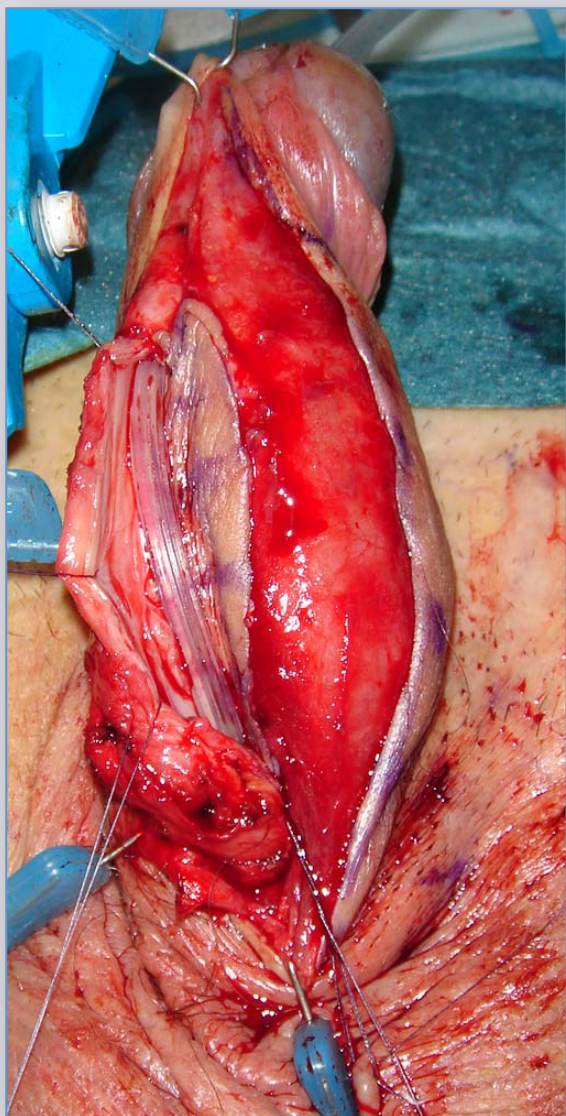
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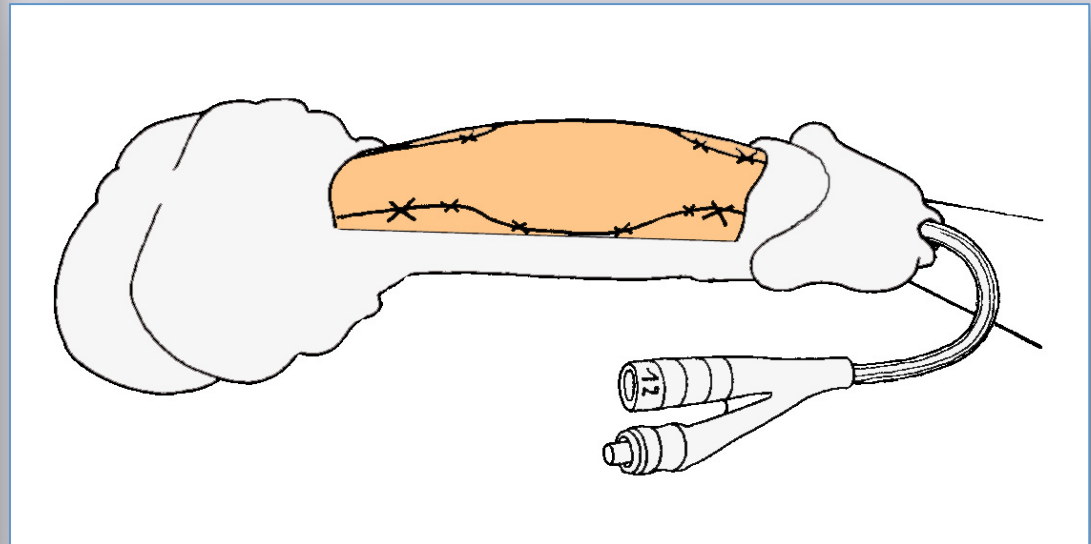
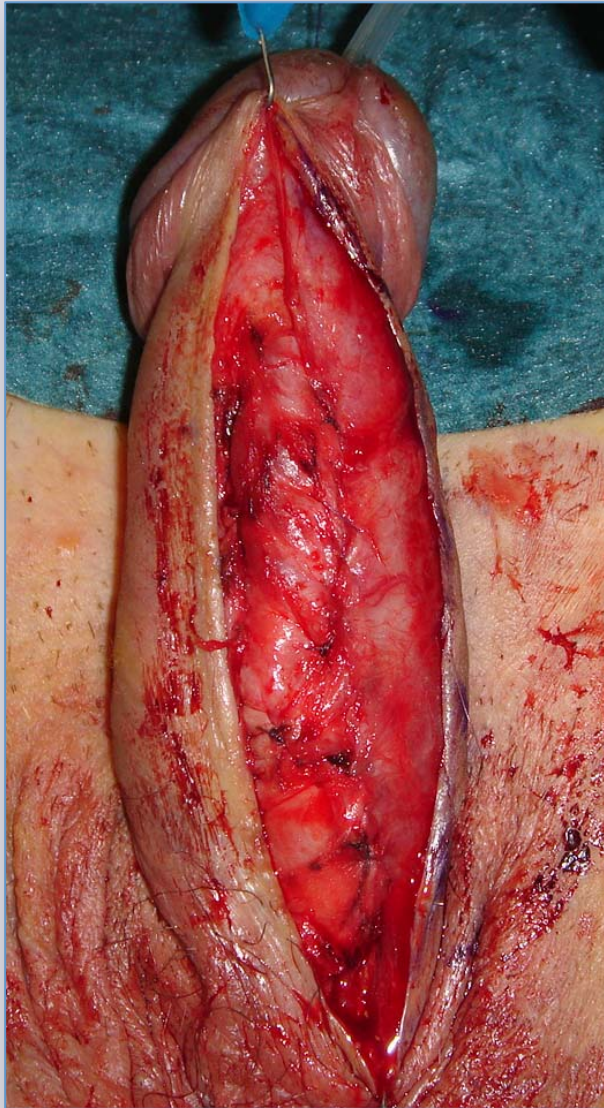
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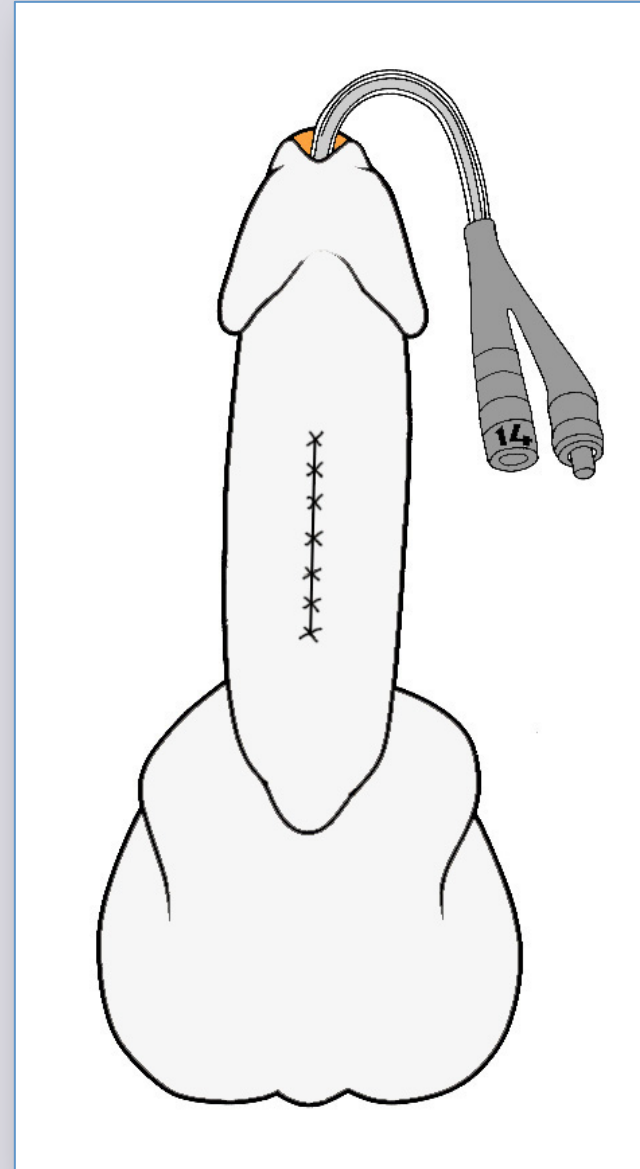
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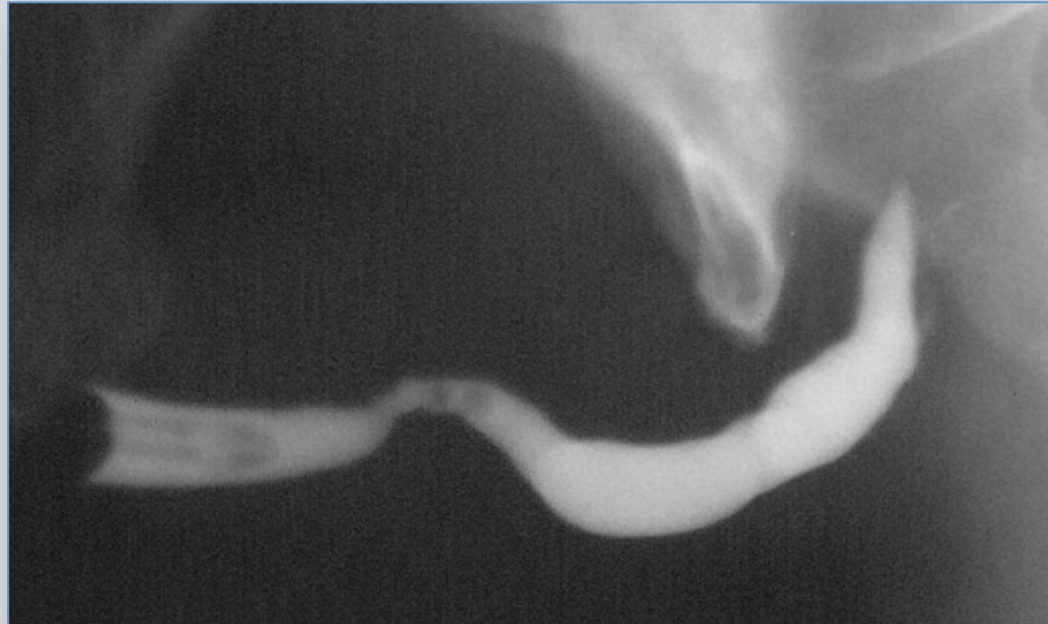
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One-stage penile urethroplasty



Hari S. Asopa
Agra - India

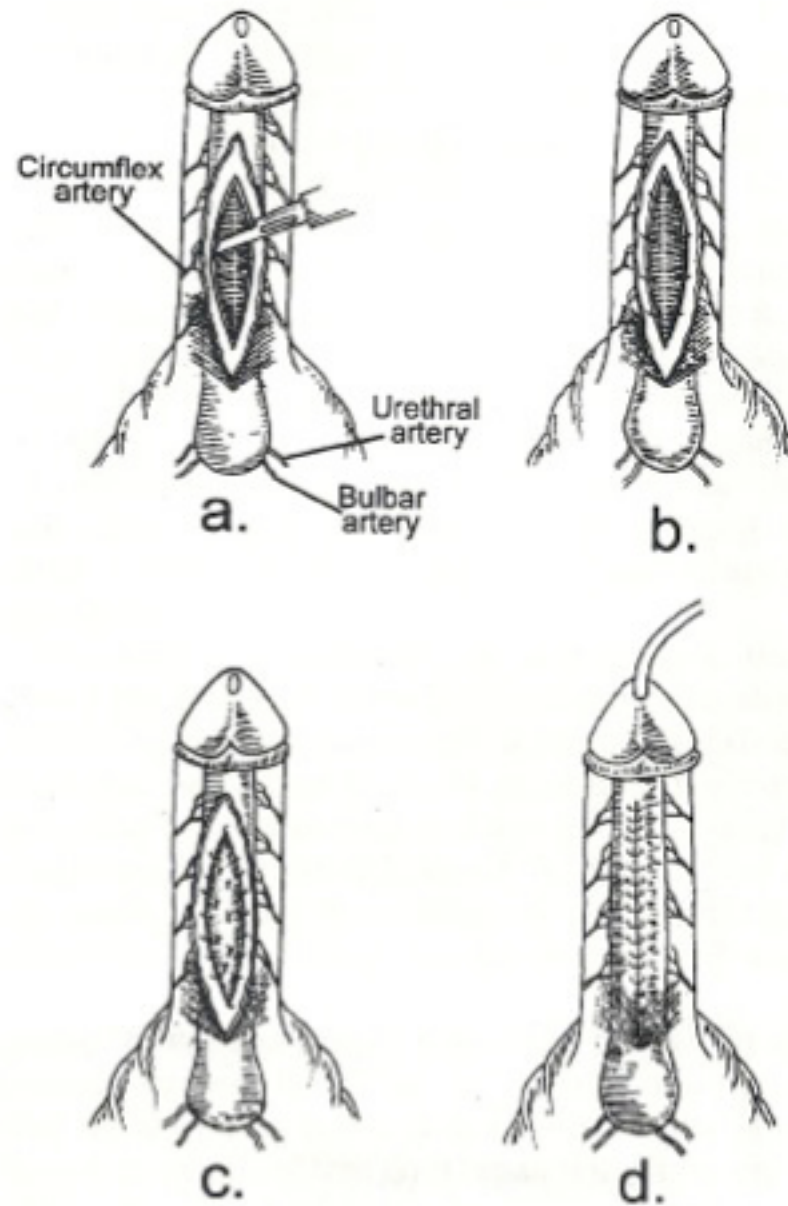
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DORSAL FREE GRAFT URETHROPLASTY FOR URETHRAL STRICTURE BY VENTRAL SAGITTAL URETHROTOMY APPROACH

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

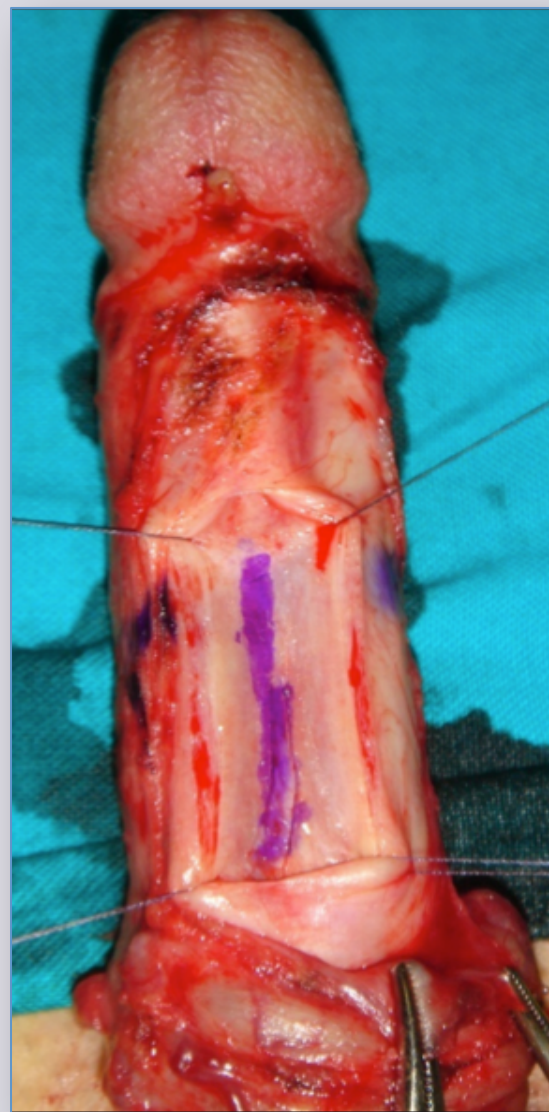
Urology, 2001: 58; 657-659



Asopa's graft inlay technique



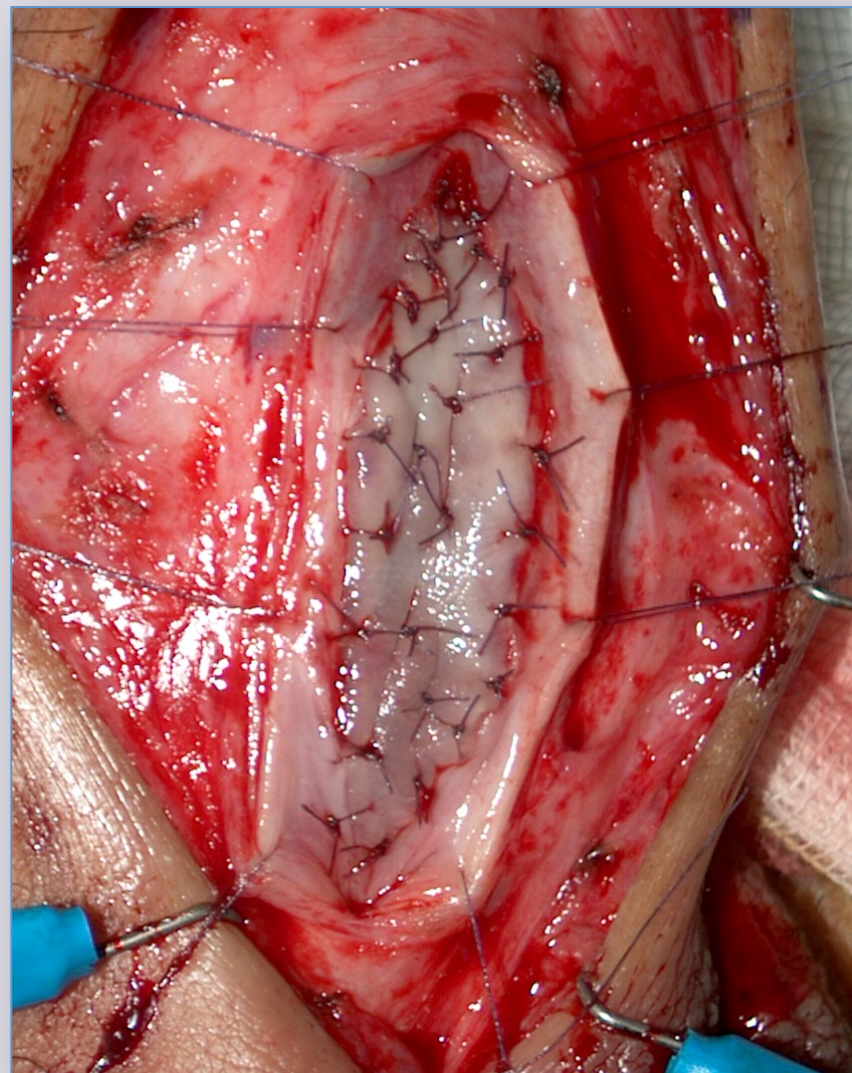
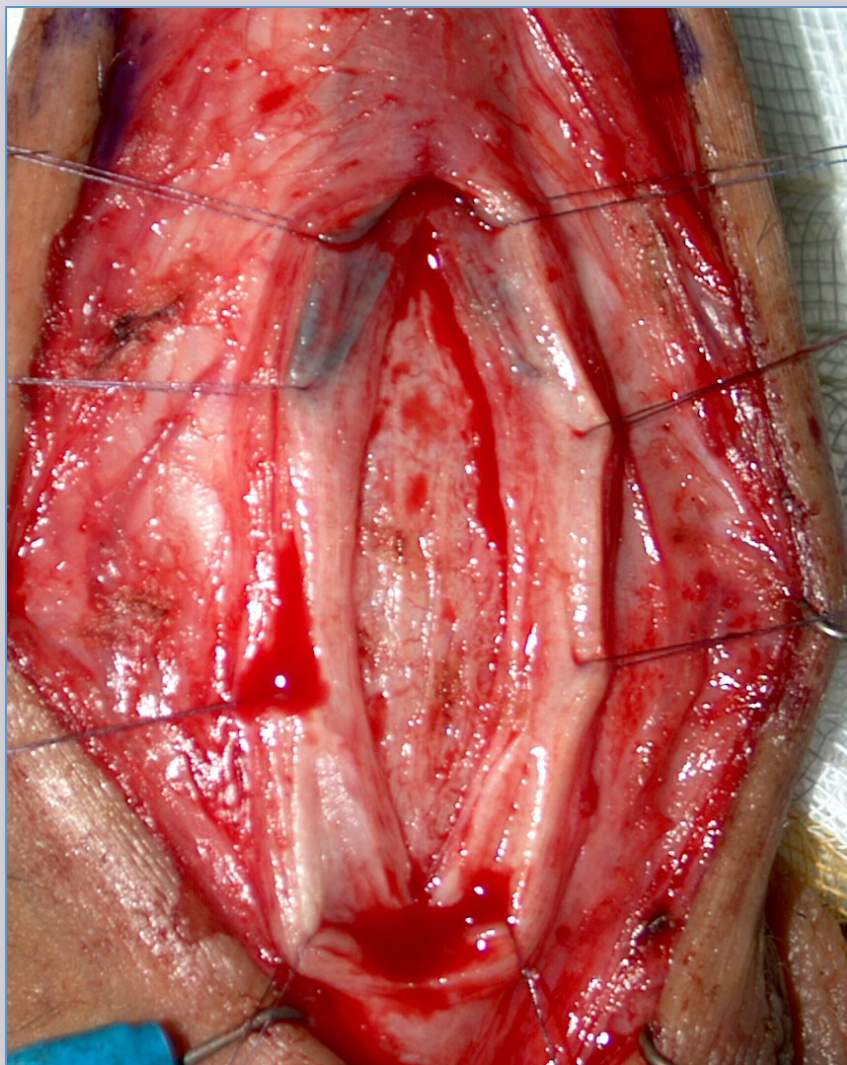
Asopa's graft inlay technique



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Asopa's graft inlay technique



Asopa's graft inlay technique



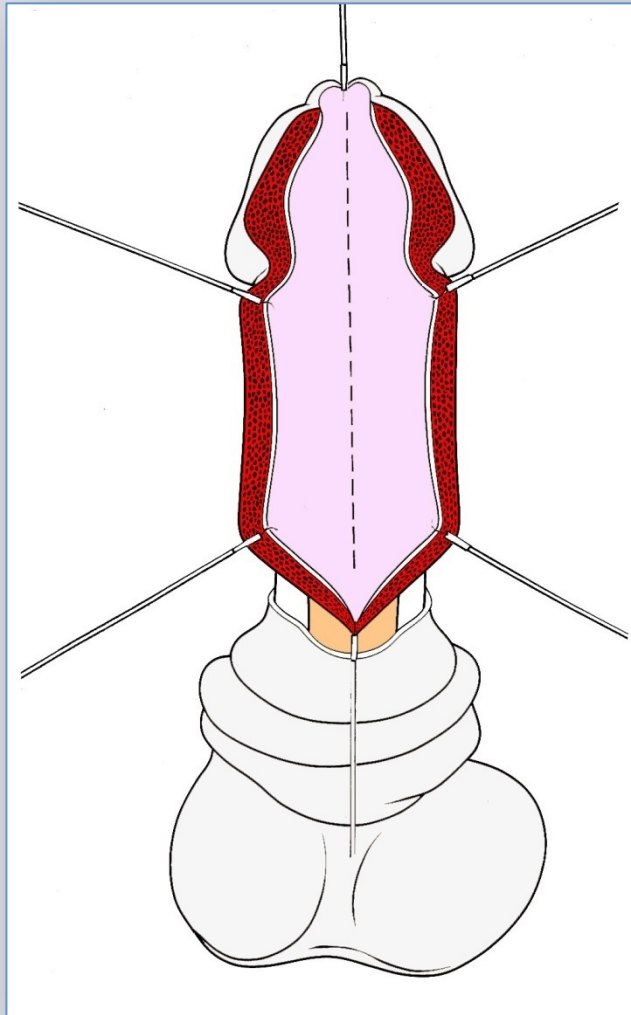
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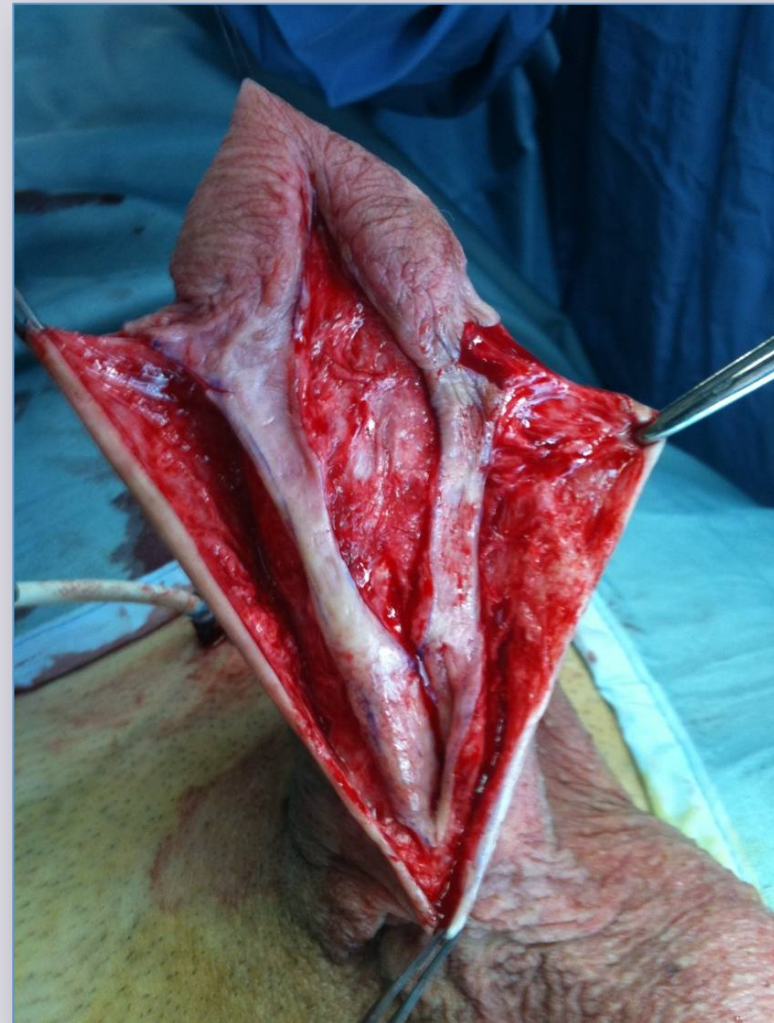
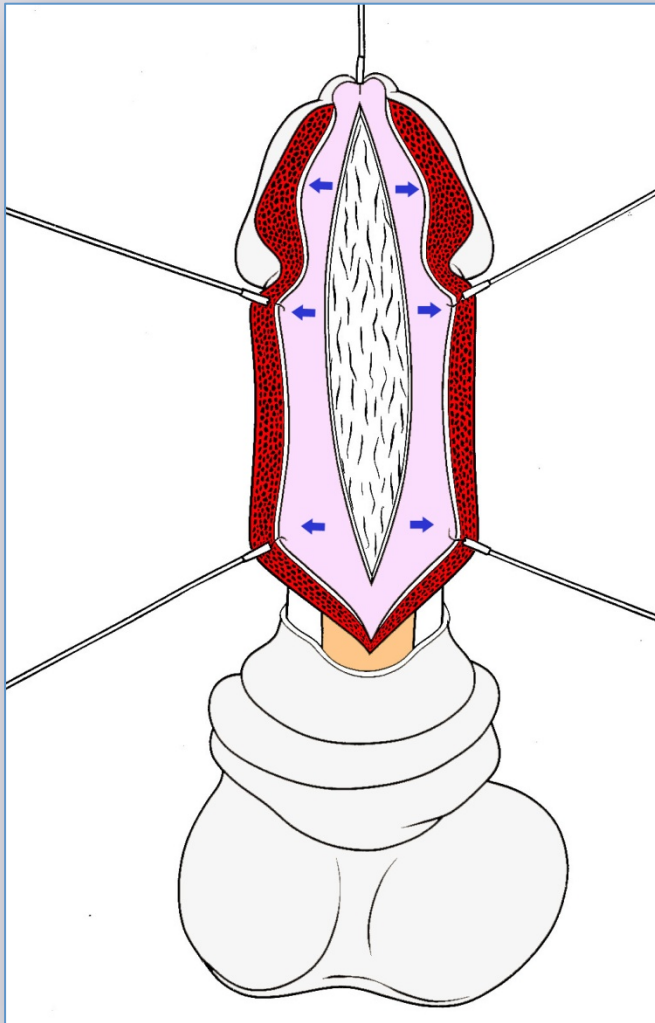
Johanson's two-stage urethroplasty



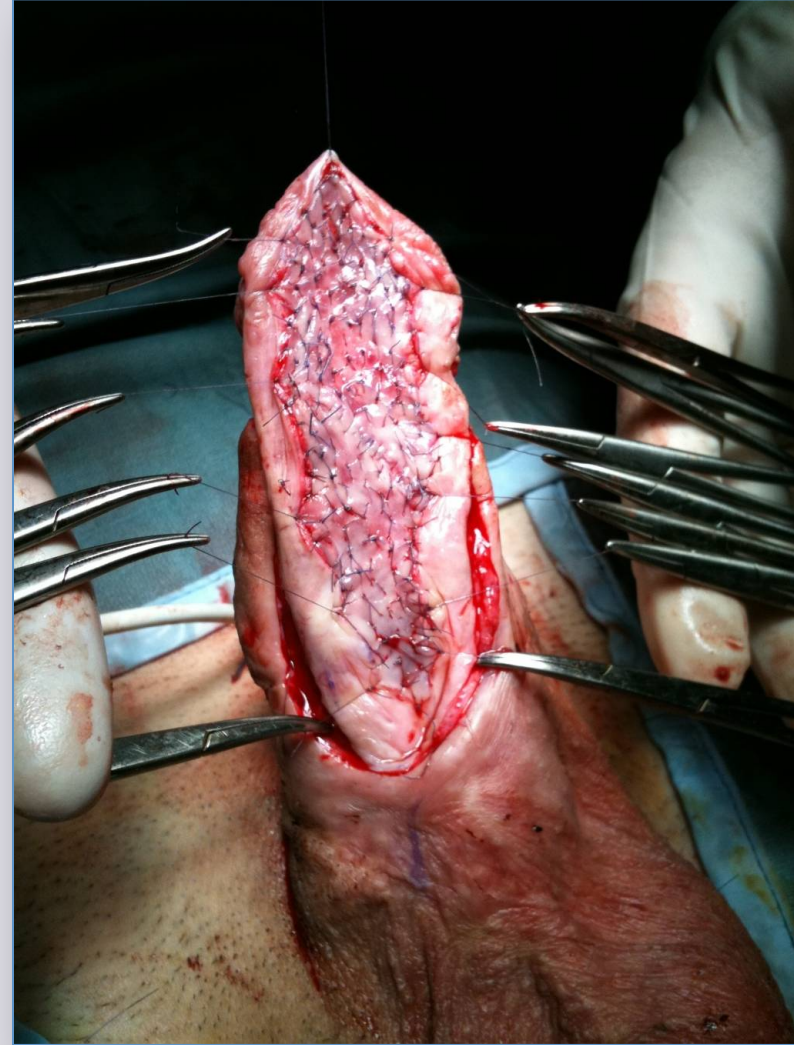
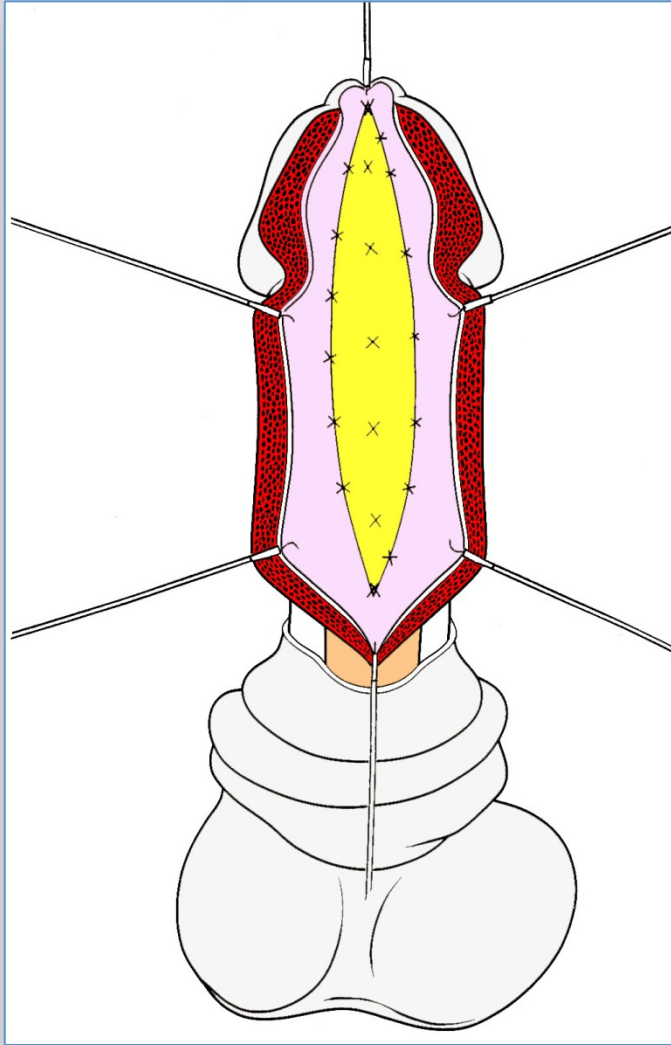
Modified Johanson's urethroplasty



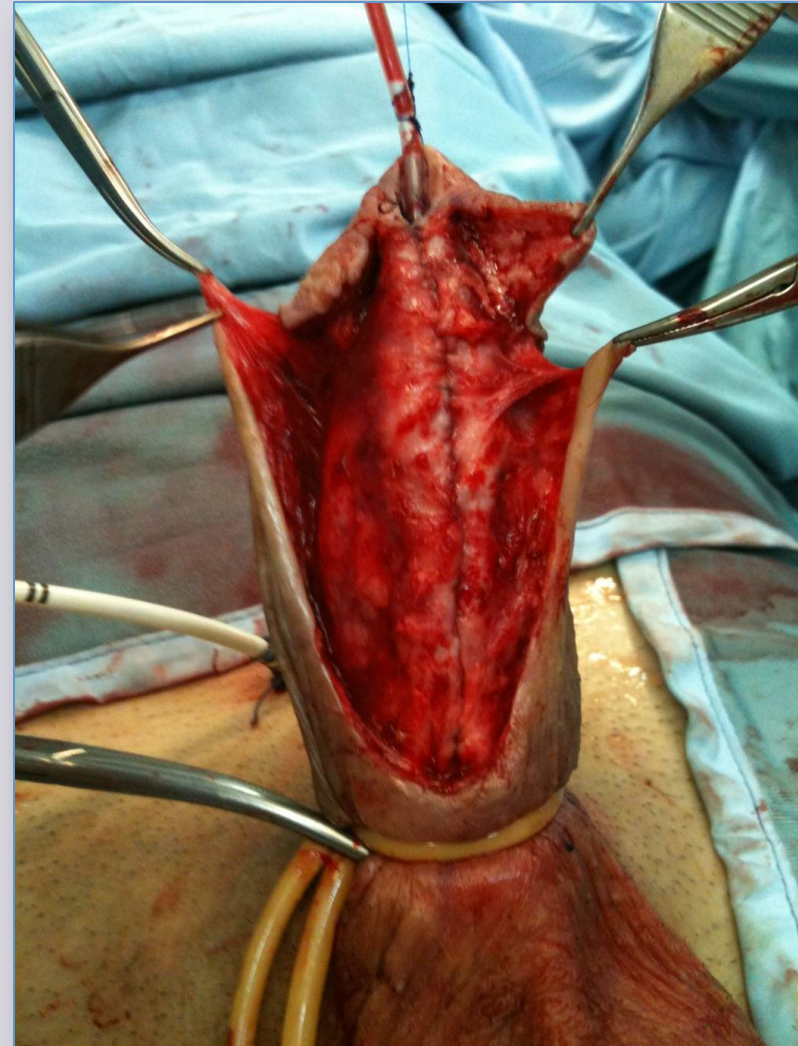
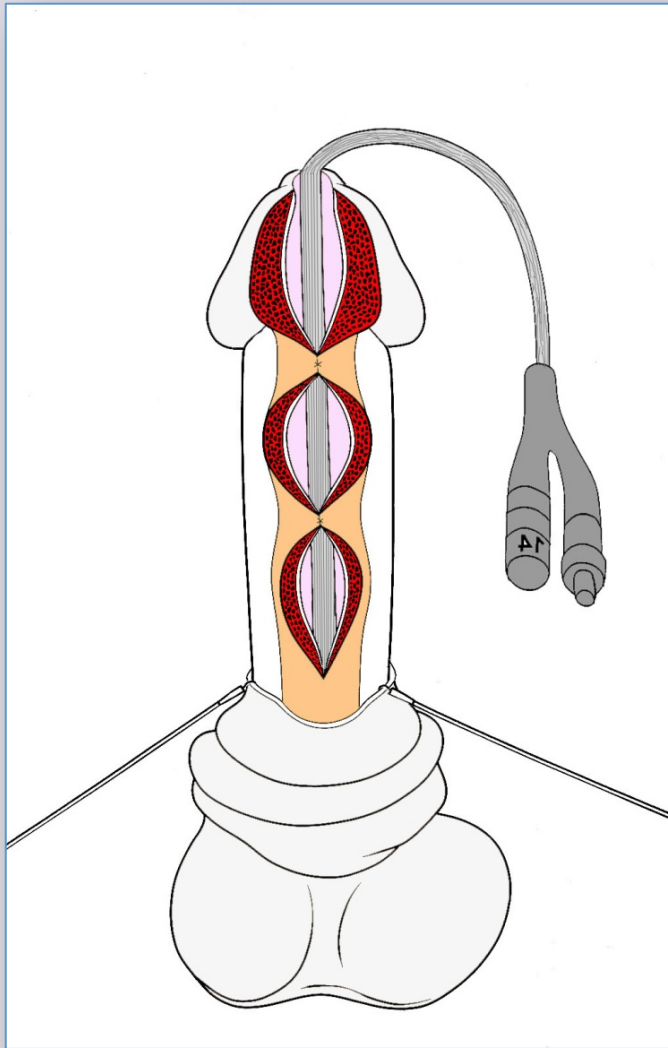
Second stage: Asopa's graft inlay technique



Second stage: Asopa's graft inlay technique



Second stage: Asopa's graft inlay technique



Second stage: Asopa's graft inlay technique



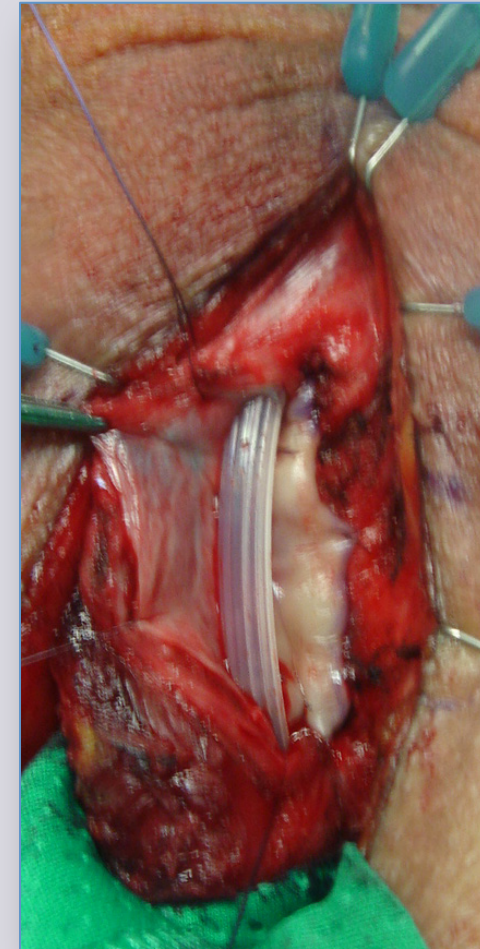
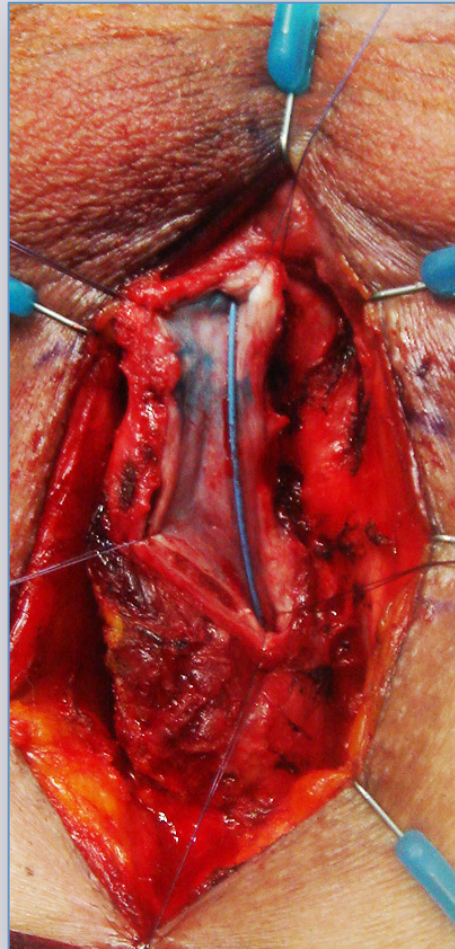
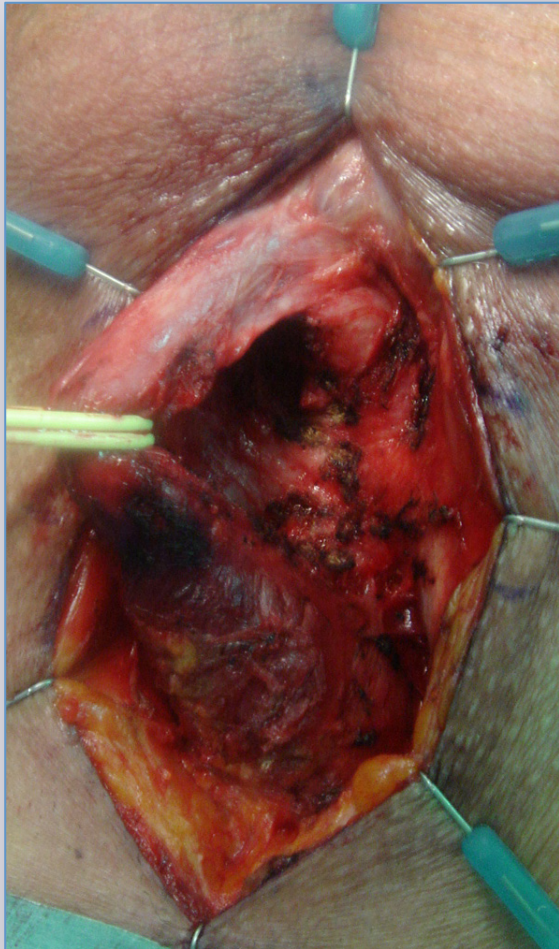
Bulbar urethra



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Barbagli's dorsal onlay graft urethroplasty



Modified Barbagli's urethroplasty

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

Sanjay Kulkarni, Guido Barbagli*, Salvatore Sansalone[†] and Massimo Lazzeri[‡]

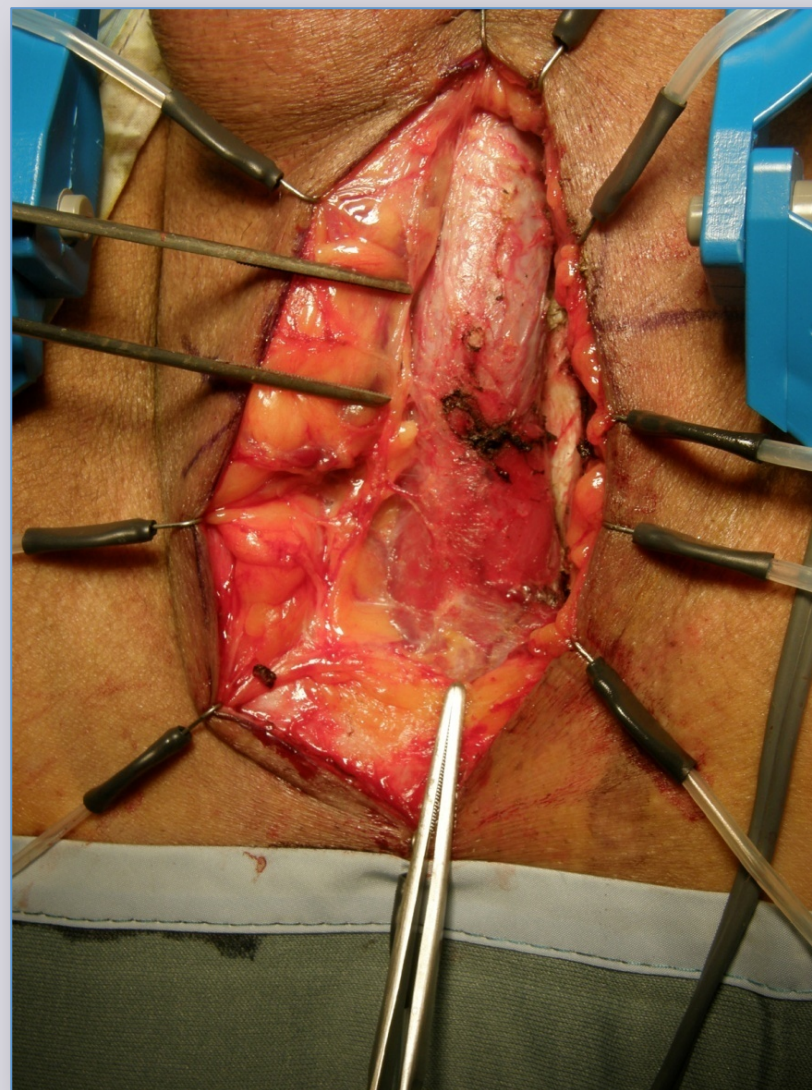
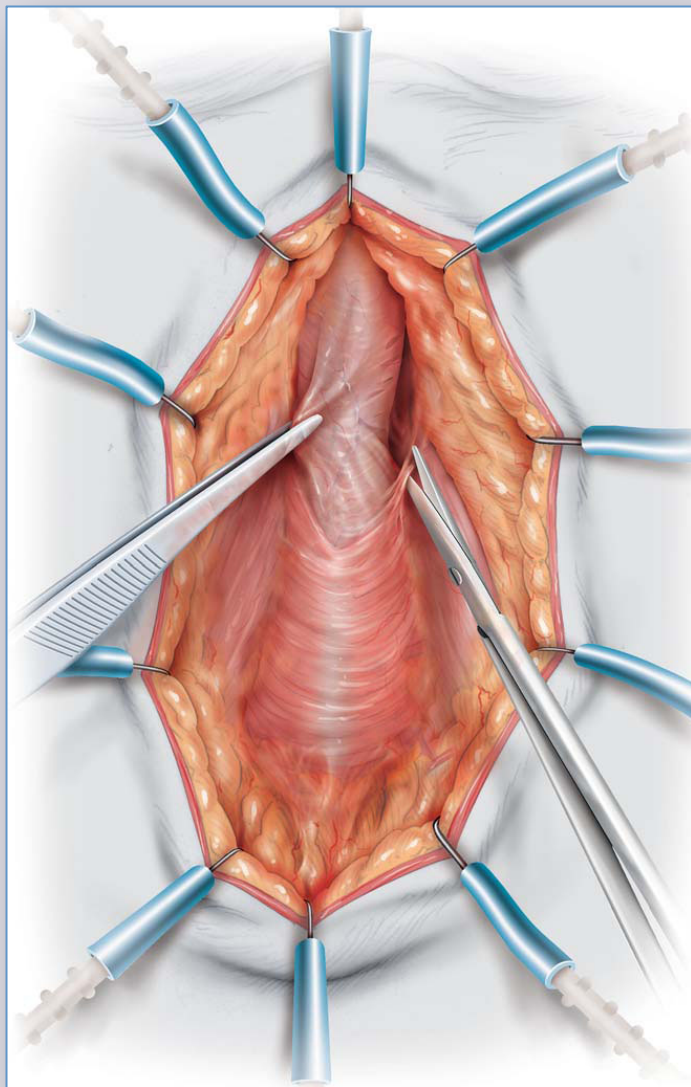
*Centre for Reconstructive Urethral Surgery, Pune, India; *Centre for Reconstructive Urethral Surgery, Arezzo,*

[†]Department of Urology, University Tor Vergata, Rome, and [‡]Department of Urology, Santa Chiara-Firenze, GIOMI Group, Florence, Italy

Accepted for publication 5 December 2008

BJU Int 2009; 104: 1150-1155

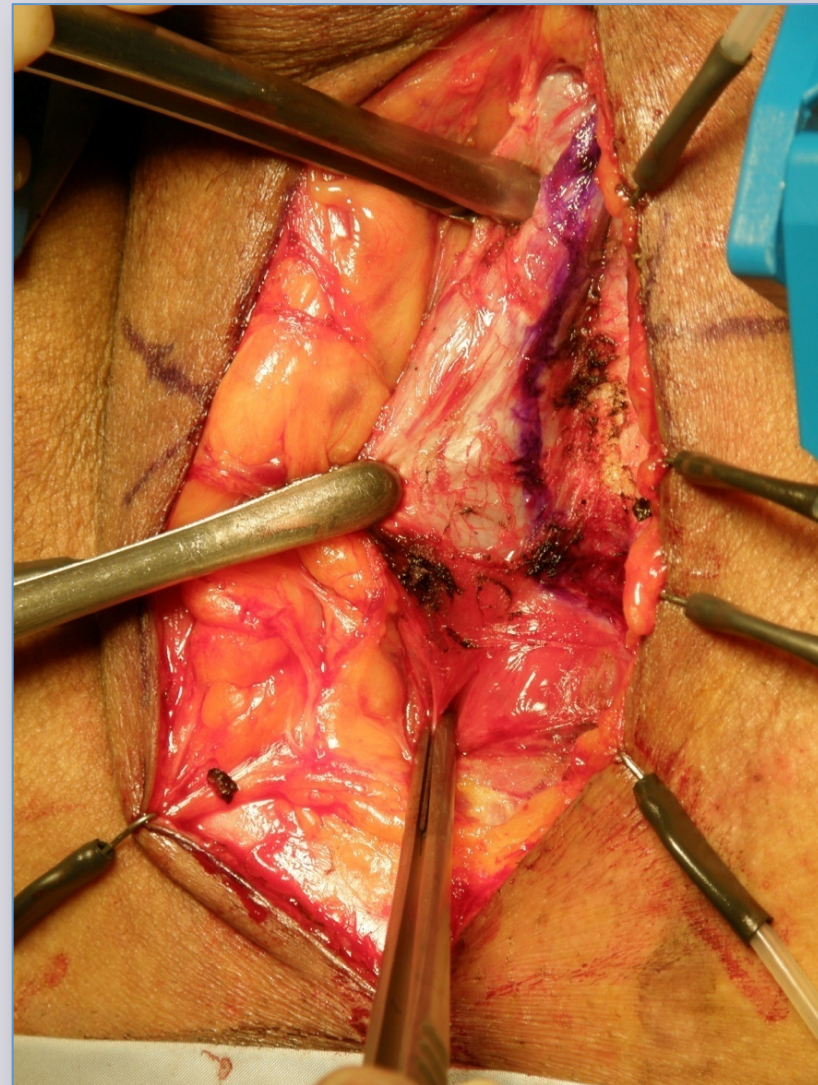
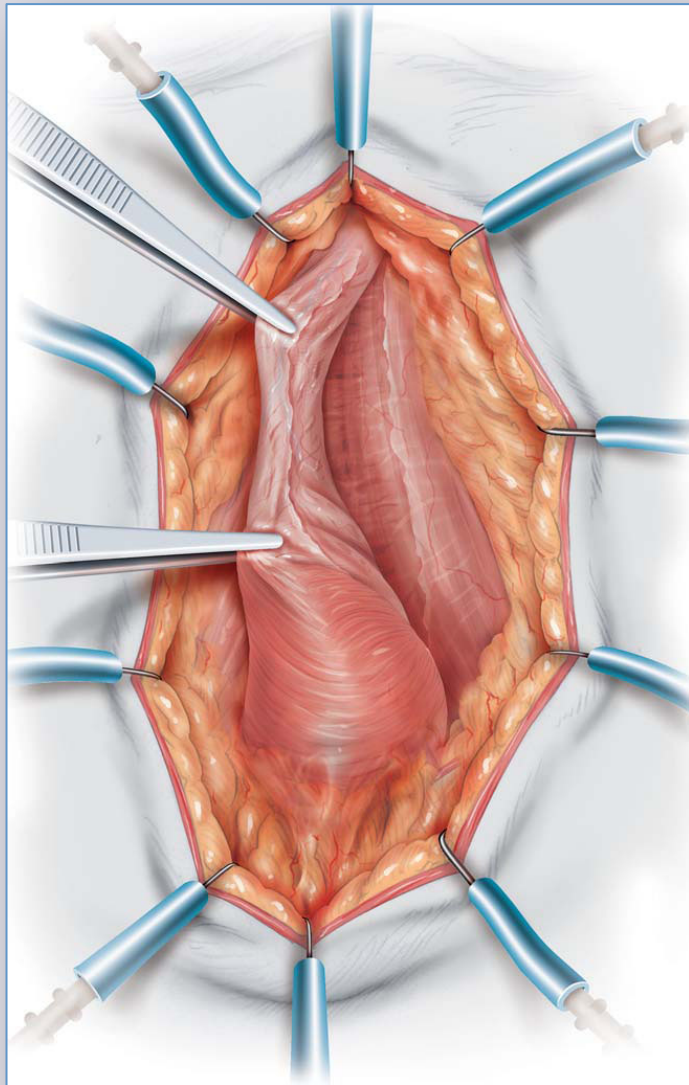
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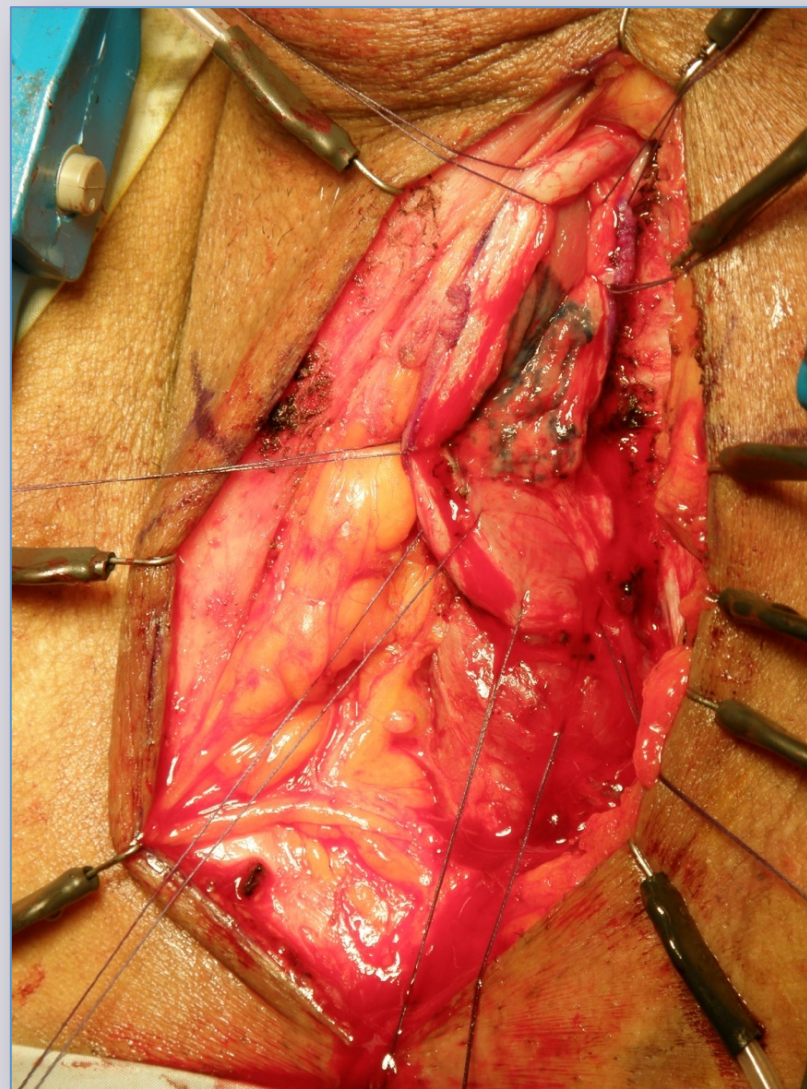
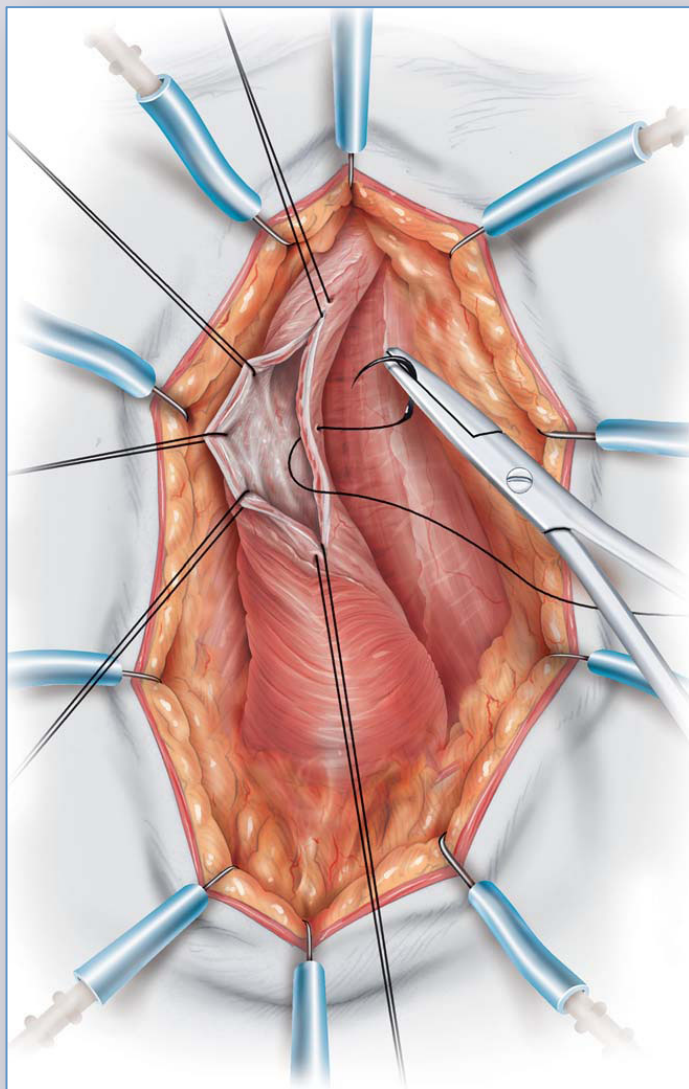
One-sided anterior urethroplasty



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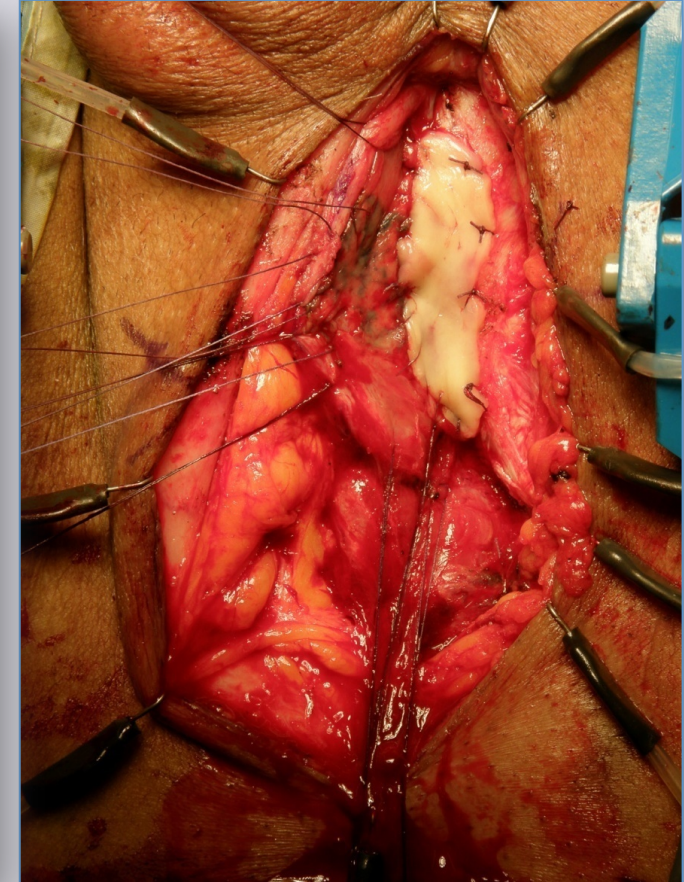
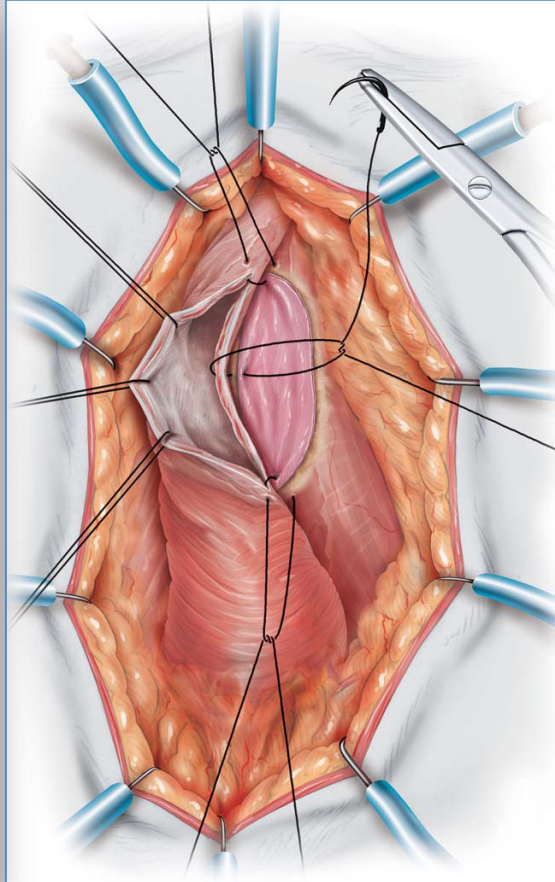
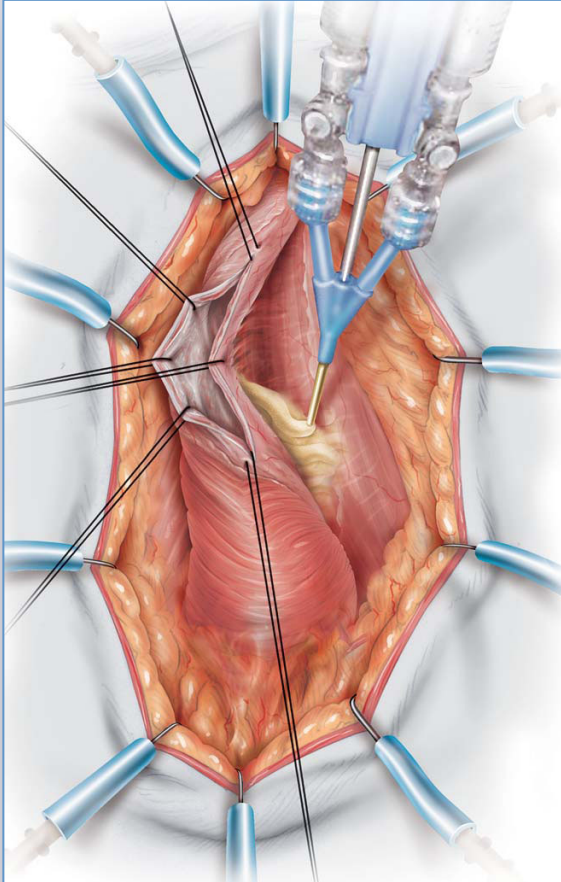
One-sided anterior urethroplasty



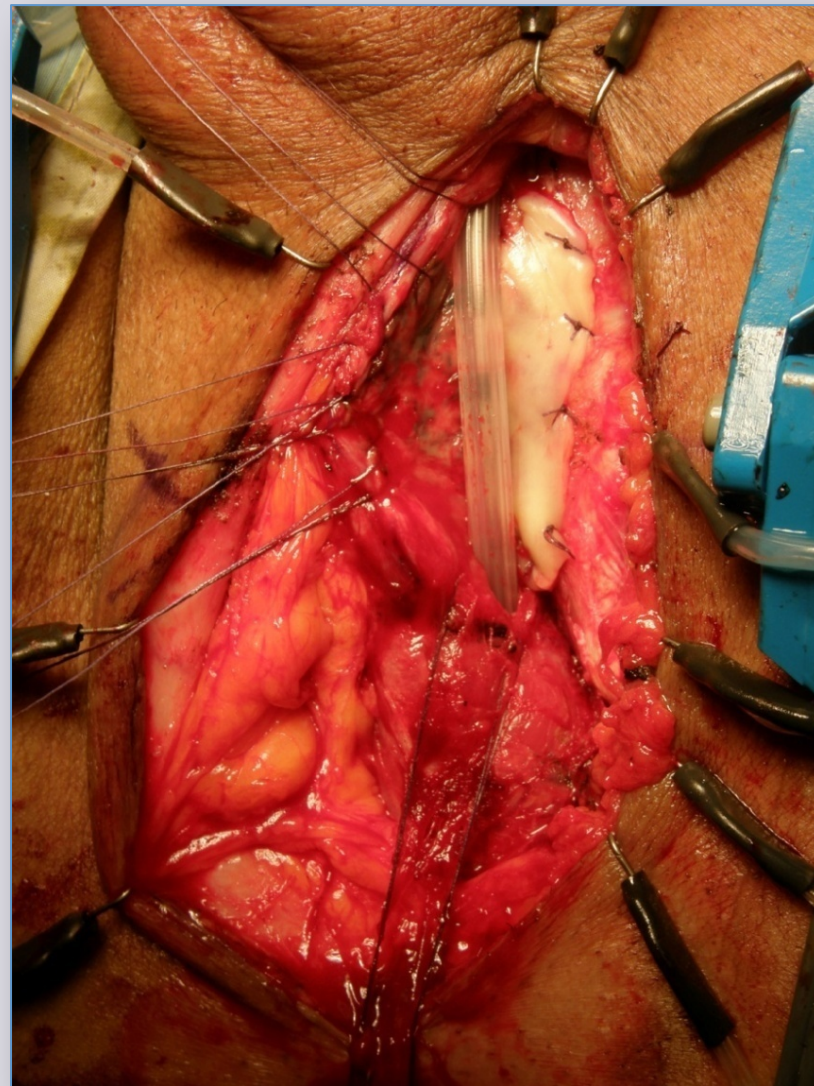
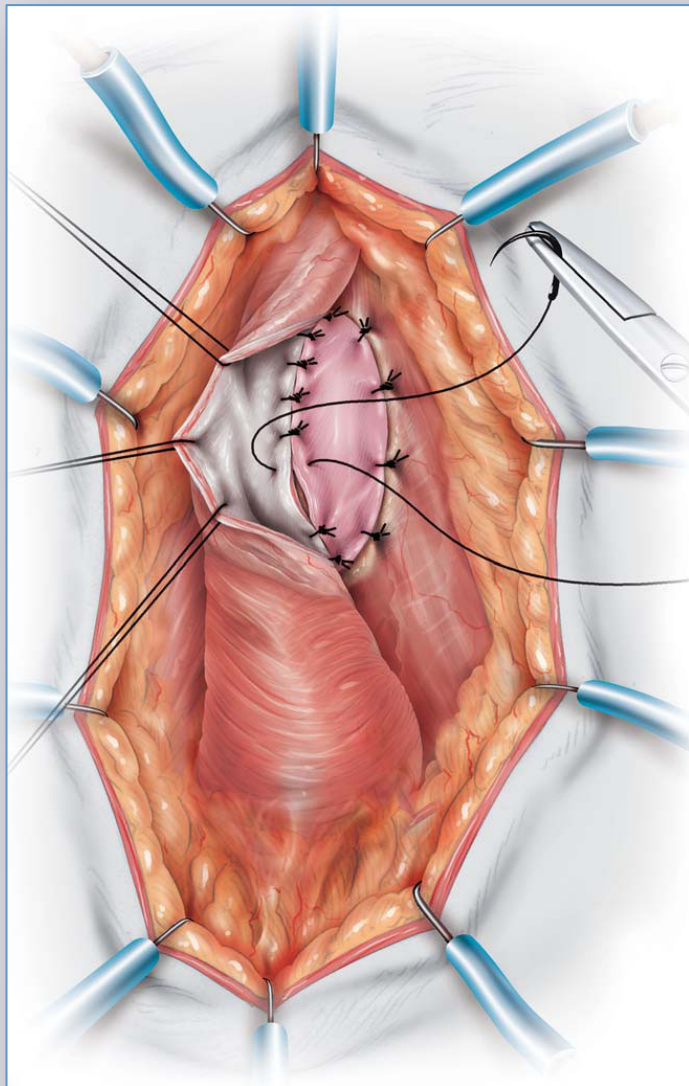
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One-sided anterior urethroplasty



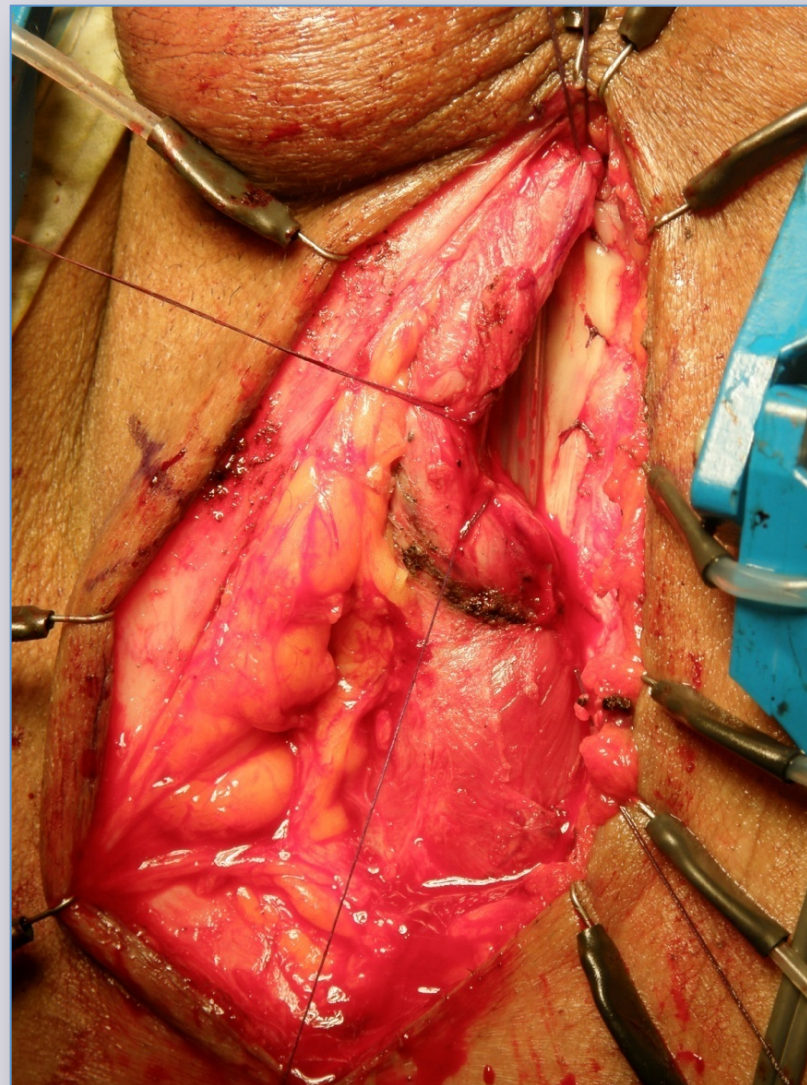
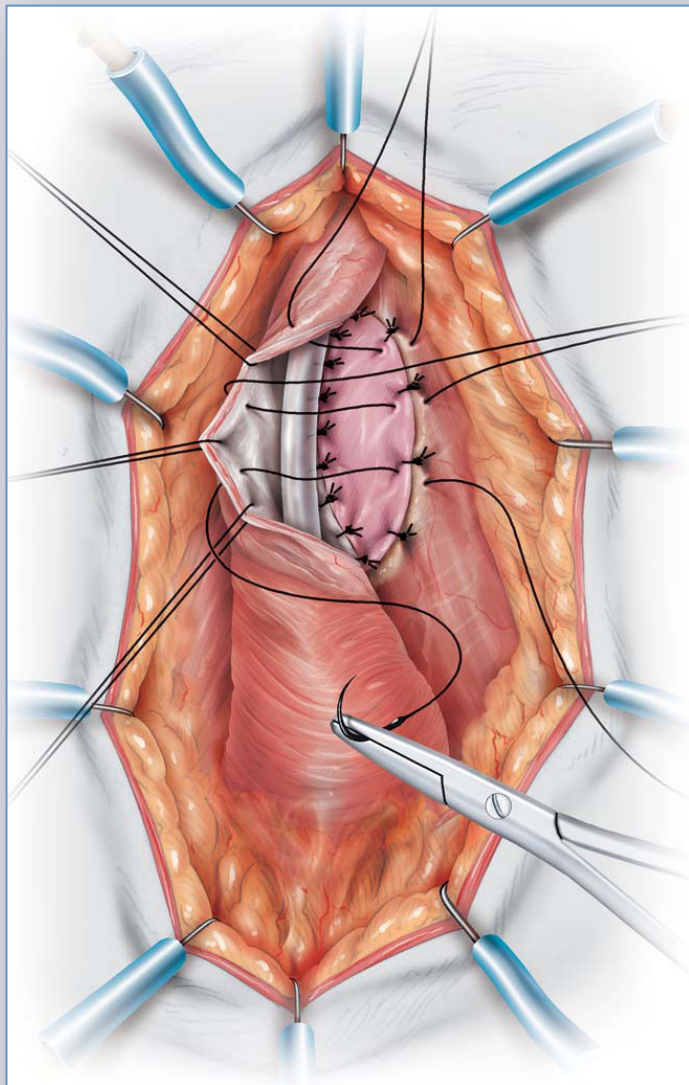
One-sided anterior urethroplasty



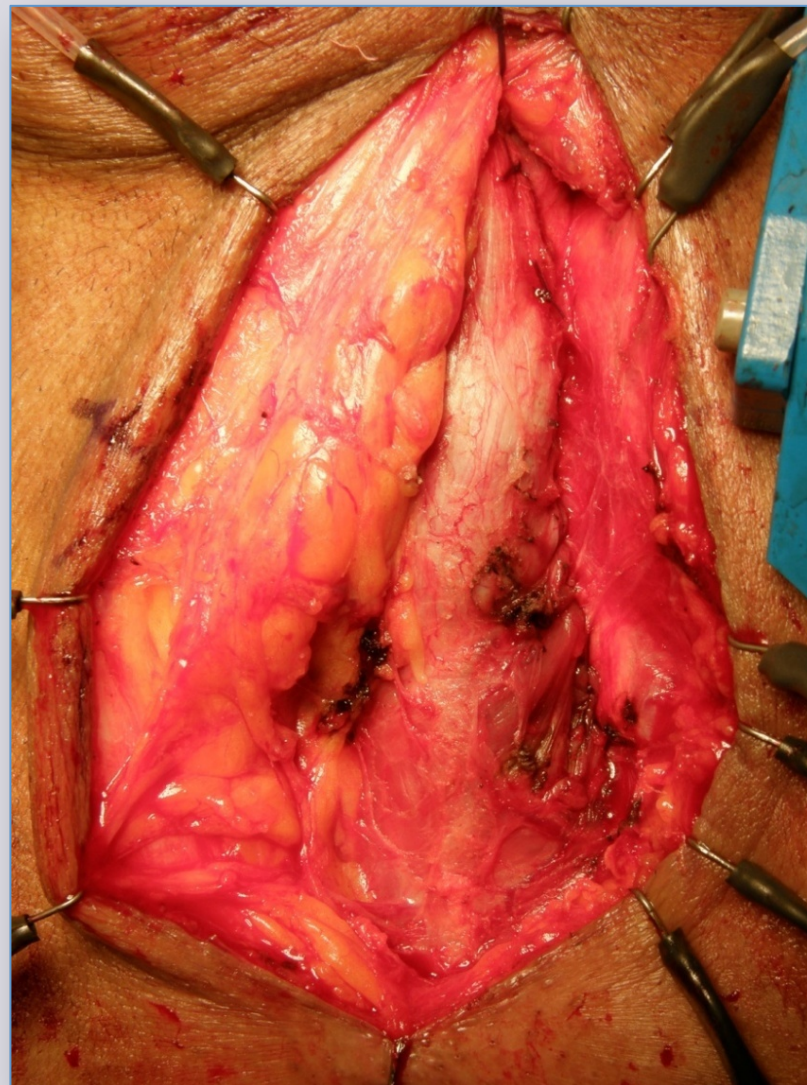
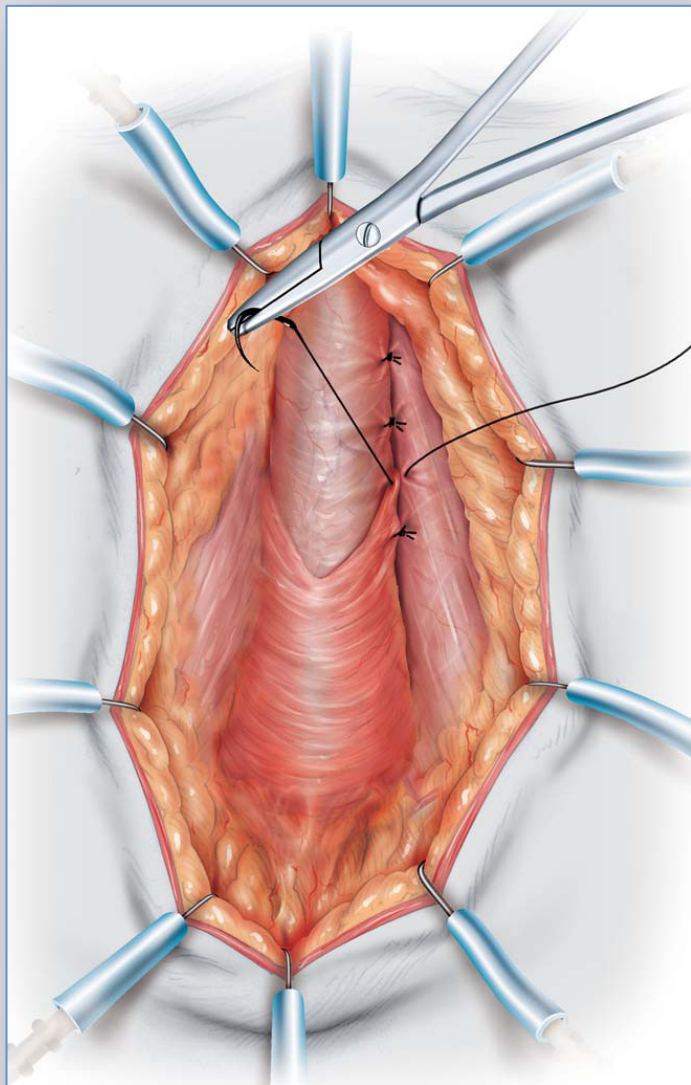
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One-sided anterior urethroplasty



One-sided anterior urethroplasty



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Pan-urethroplasty by perineal approach



Sanjay B. Kulkarni
Pune - India

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Pan-urethroplasty by perineal approach

V31

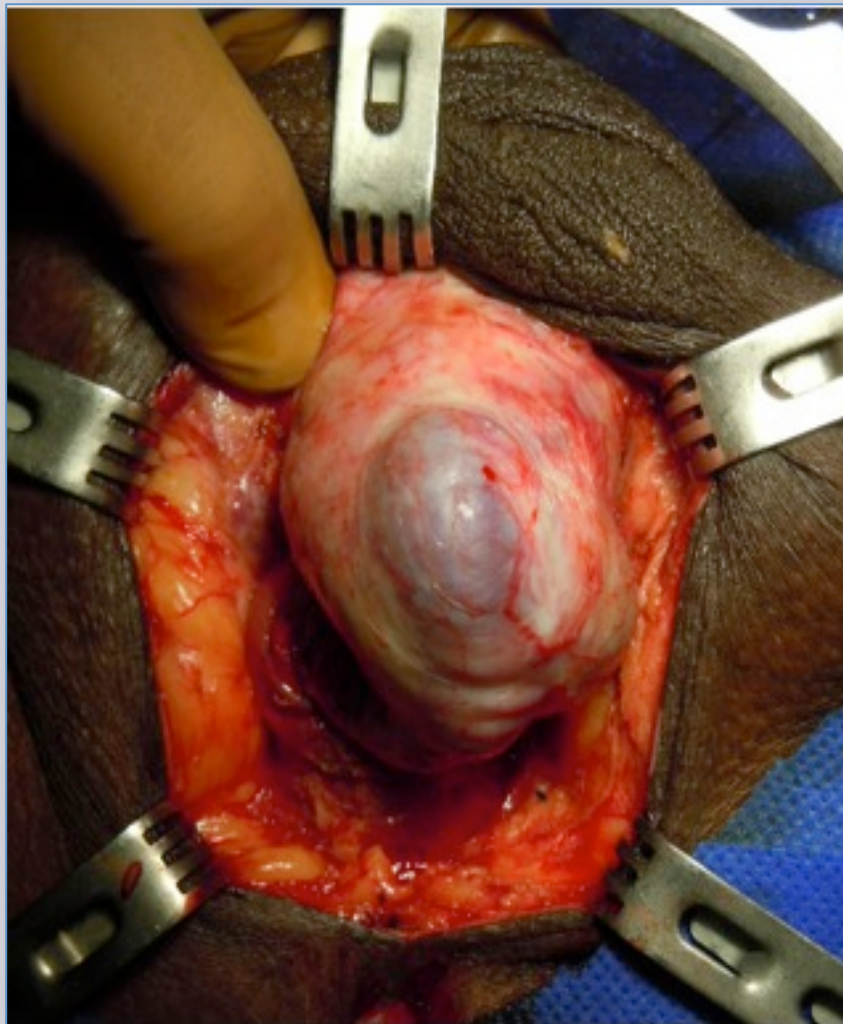
A NEW TECHNIQUE OF URETHROPLASTY FOR BALANITIS XEROTICA OBLITERANS.

Sanjay B. Kulkarni, Jyotsna S. Kulkarni, Deepak V. Kirpekar. Pune, India. (Presented by Sanjay B. Kulkarni)

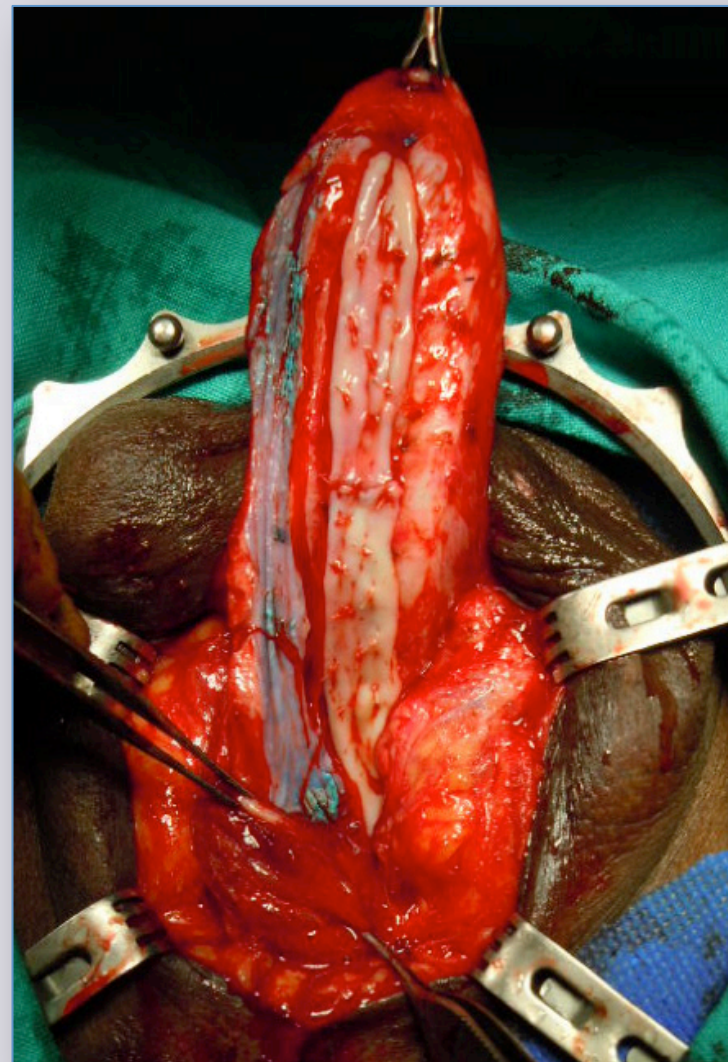
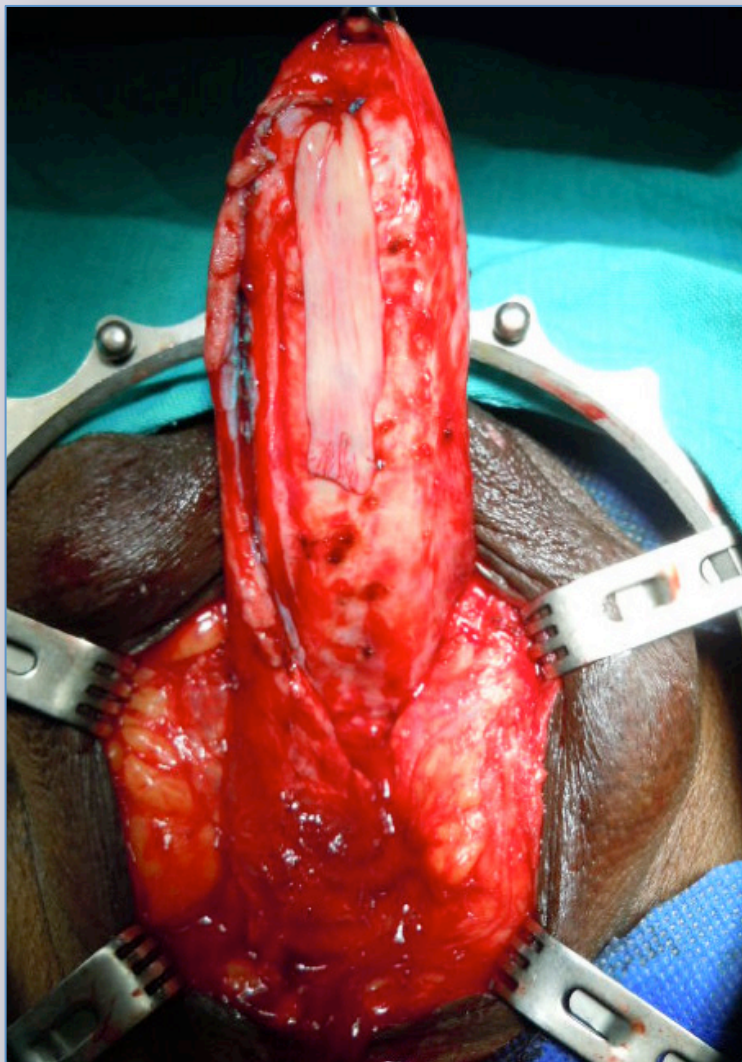
INTRODUCTION AND OBJECTIVES: Balanitis Xerotica Obliterans (BXO) is a common cause of urethral stricture. In past use of genital skin resulted in restenosis, requiring repeat operations. We wish to demonstrate a new technique of Single stage repair using Buccal Mucosa Graft (BMG) as Dorsal Onlay Graft (DOG) for the penile and bulbar urethra through perineal incision only.

J Urol 2000, 163(4): 352 (abstr. V31)

Kulkarni's technique by perineal approach



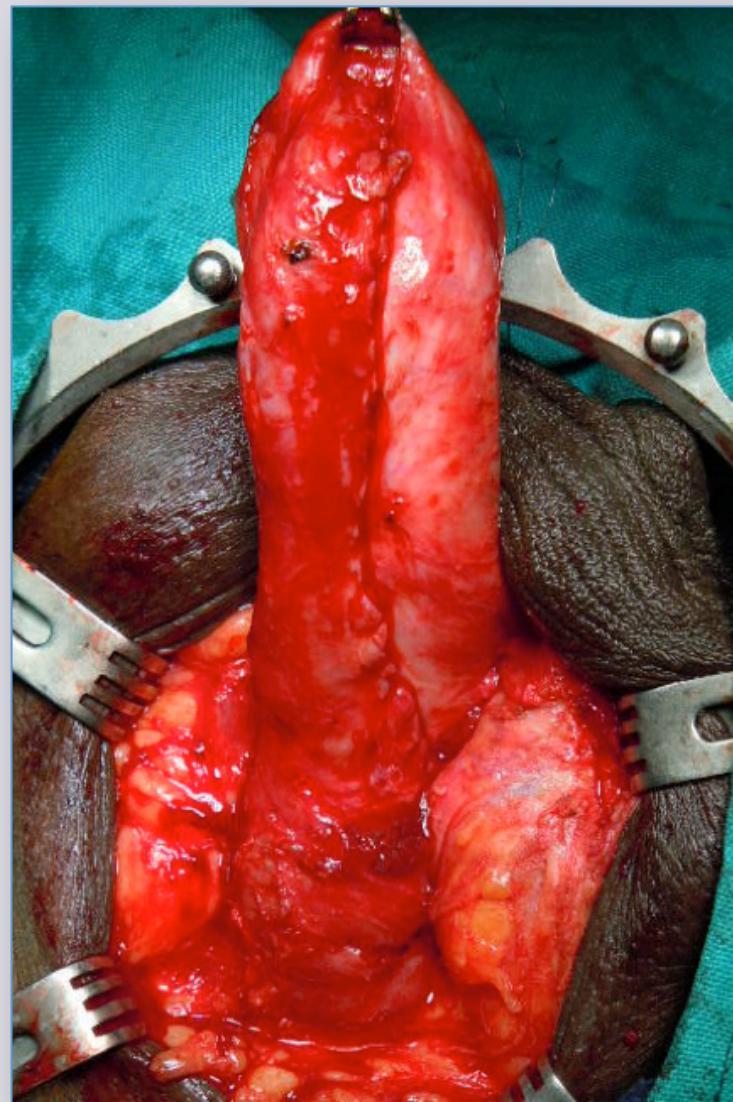
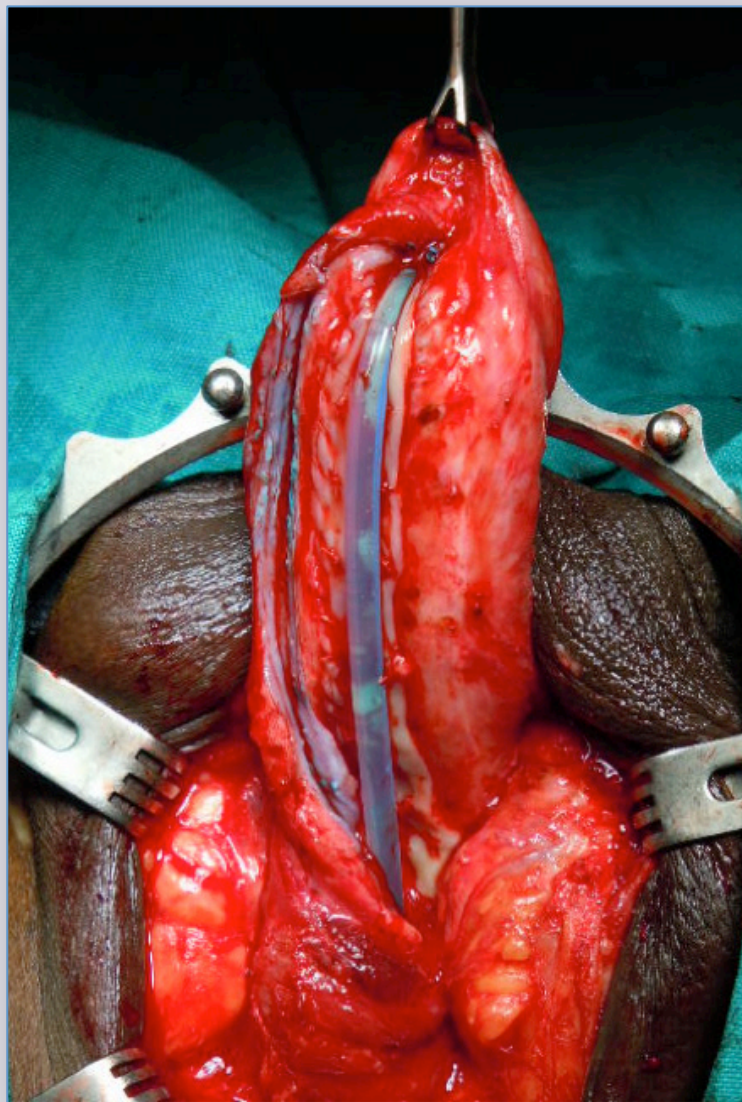
Kulkarni's technique by perineal approach



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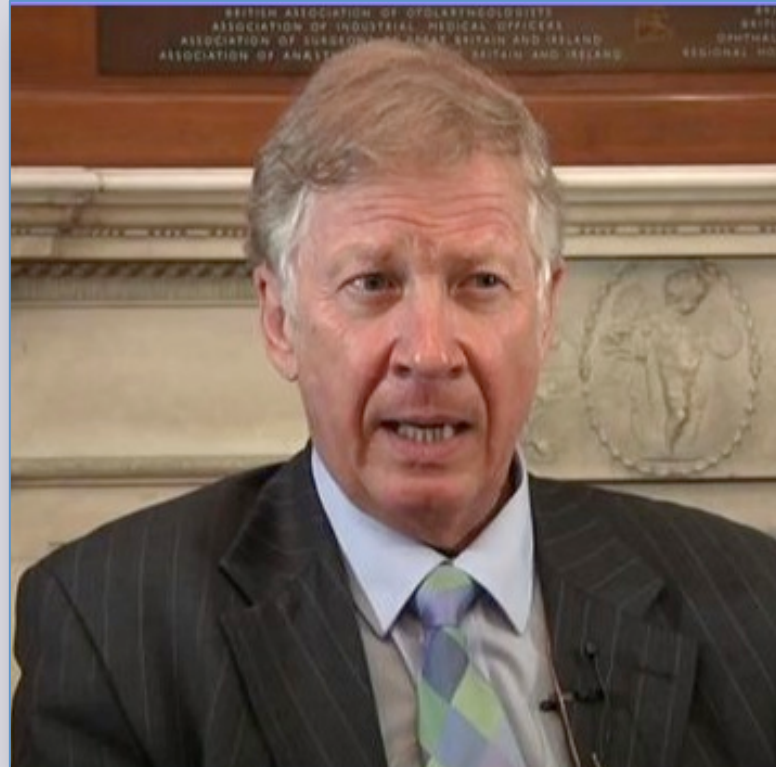
Kulkarni's technique by perineal approach



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Non-transecting bulbar urethroplasty



Antony R. Mundy
London - UK

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Non-transecting bulbar urethroplasty



Non-transecting anastomotic bulbar urethroplasty: a preliminary report

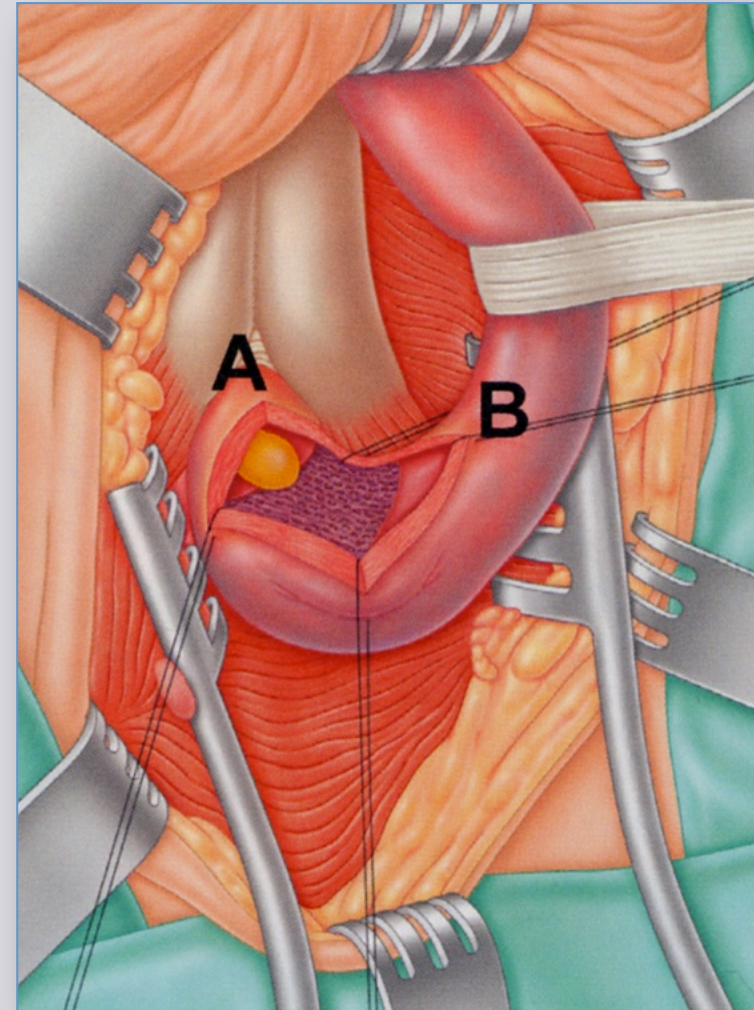
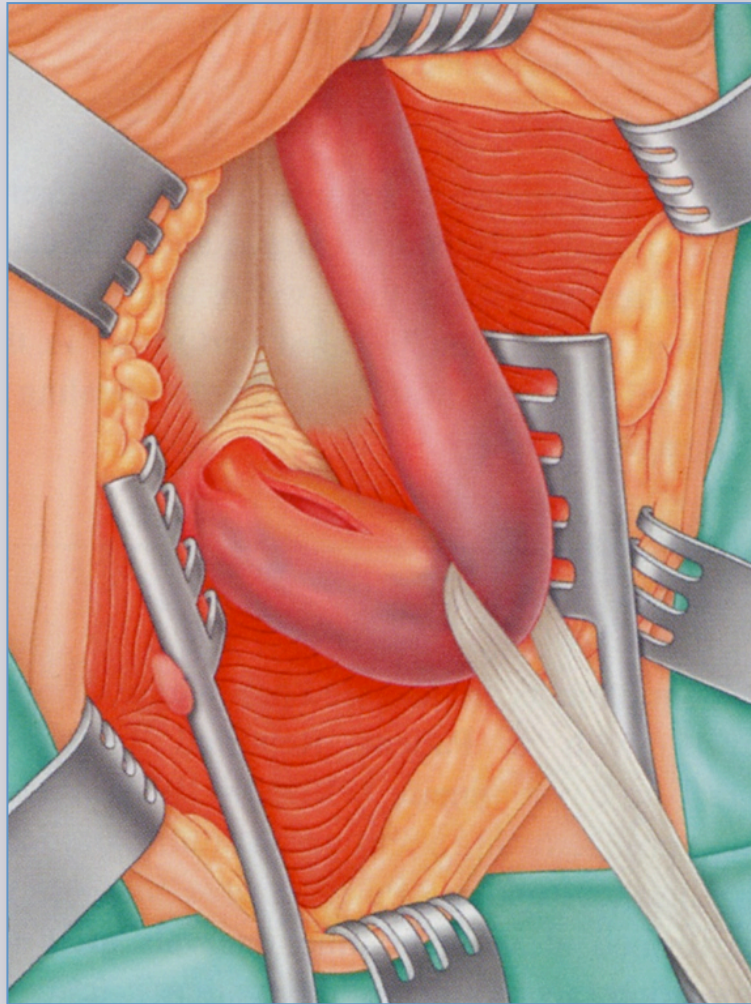
Daniela E. Andrich and Anthony R. Mundy

Institute of Urology, London, UK

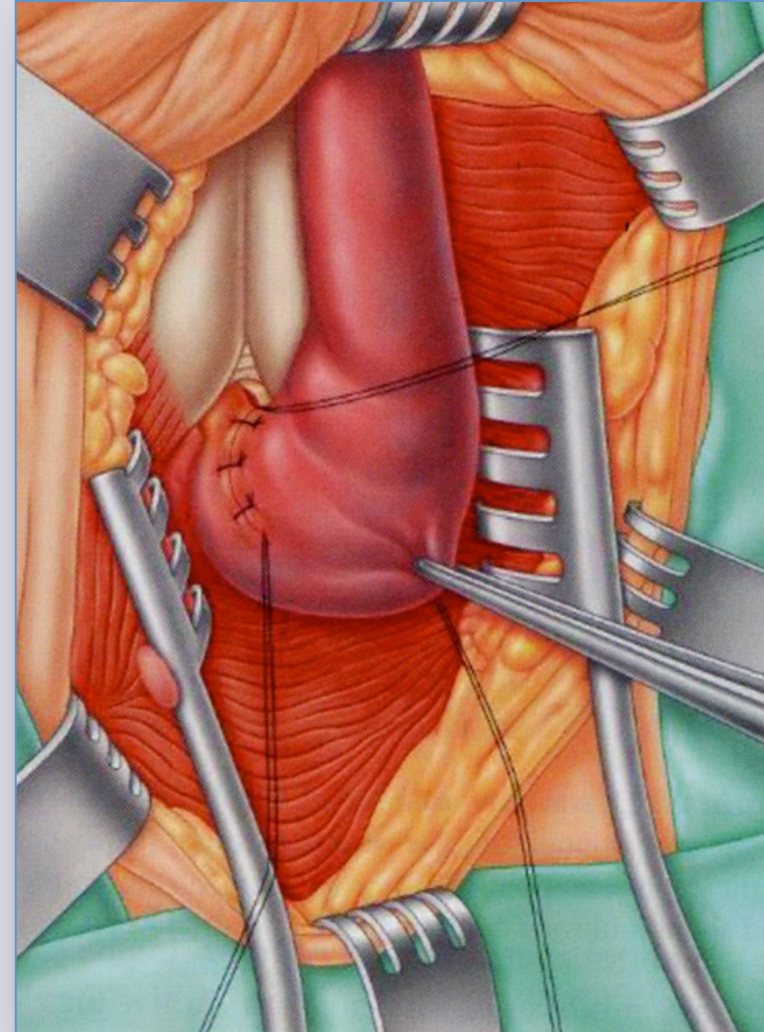
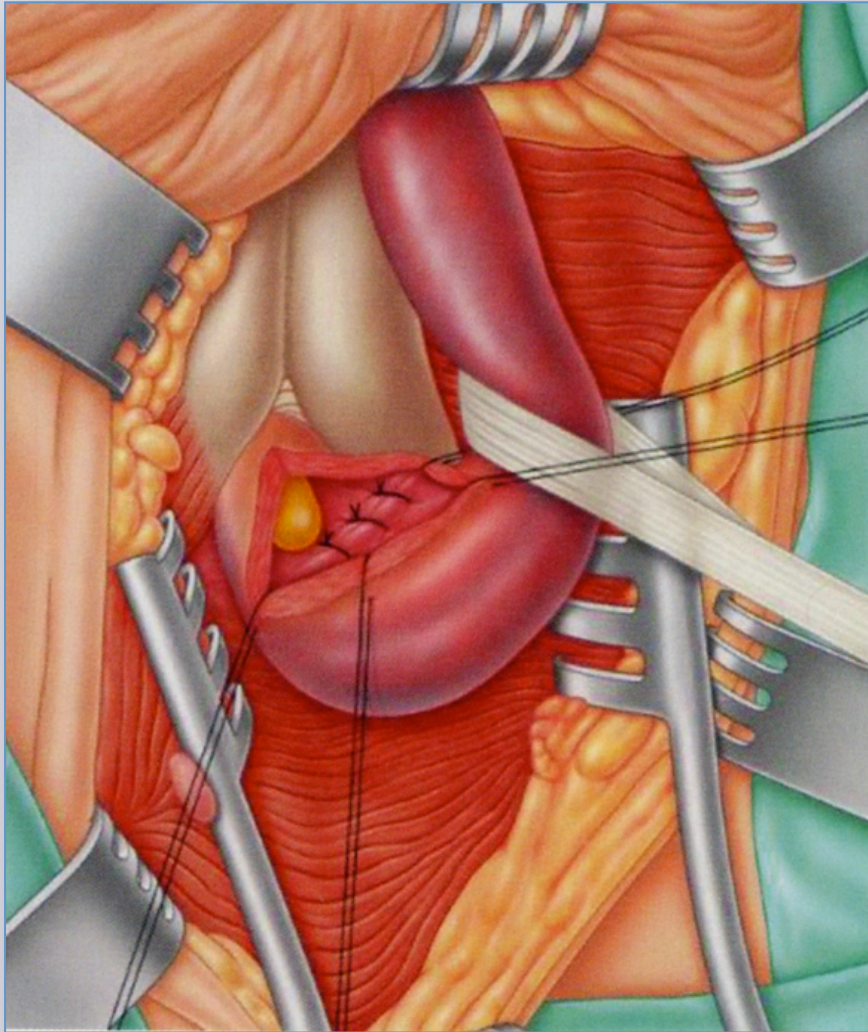
Accepted for publication 21 April 2011

BJU Int 2011, 109: 1090-1094

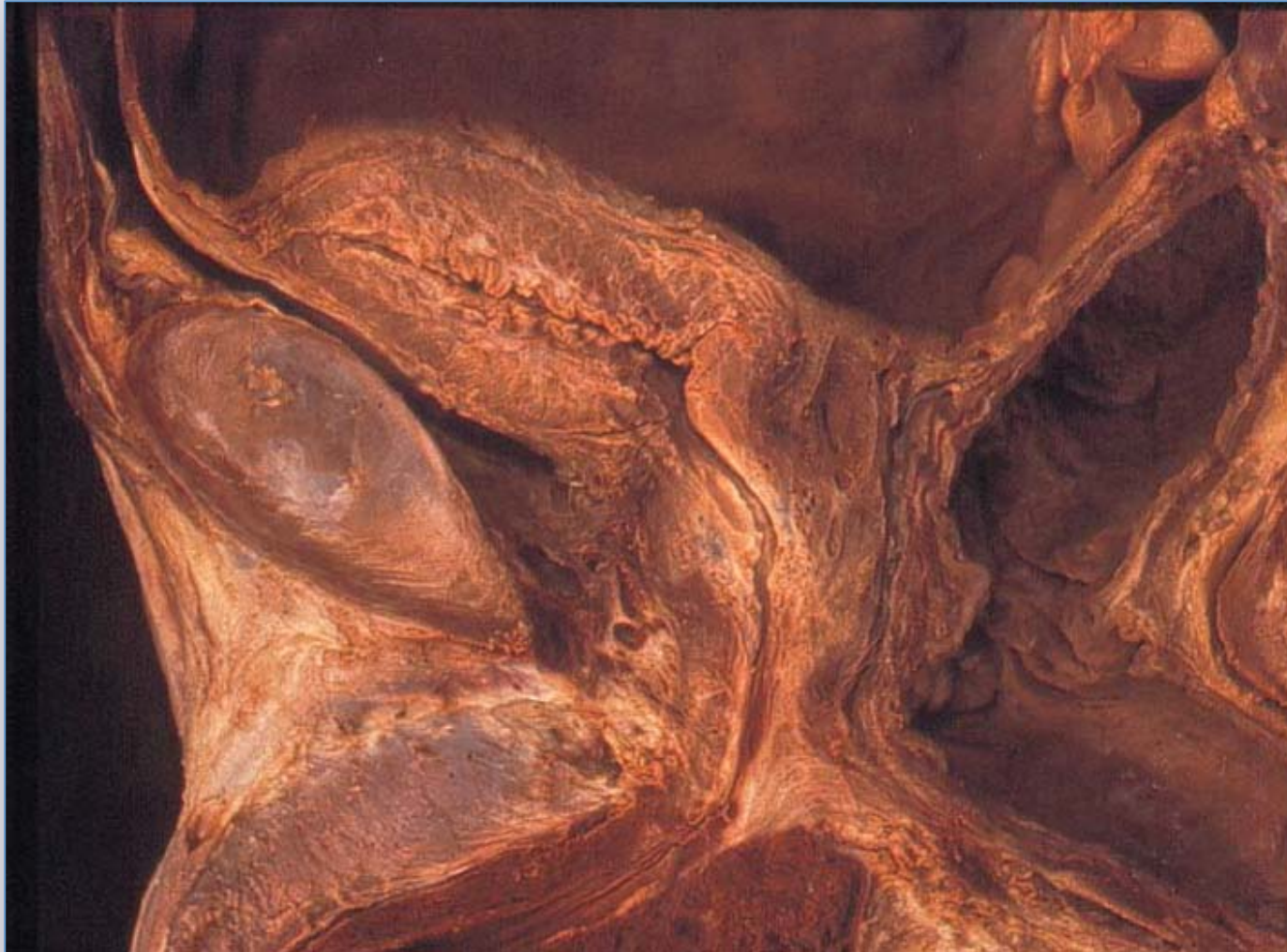
Mundy's non-transecting bulbar urethroplasty



Mundy's non-transecting bulbar urethroplasty



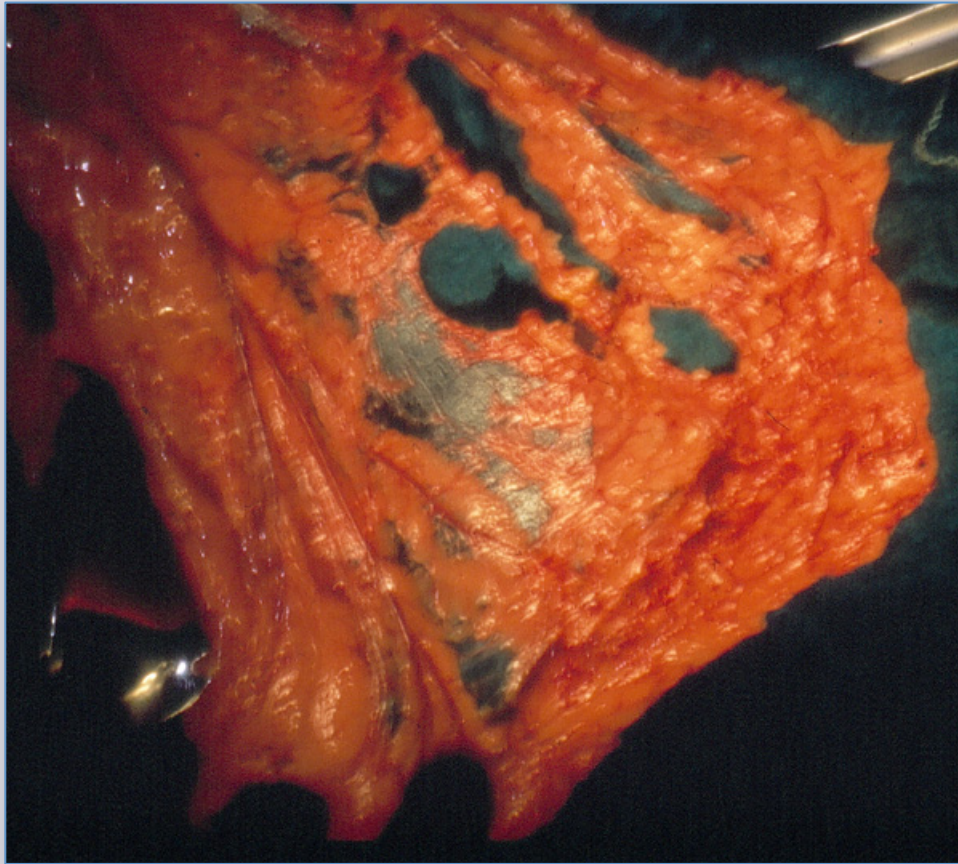
Posterior urethra



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Modified Turner-Warwick's omentoplasty





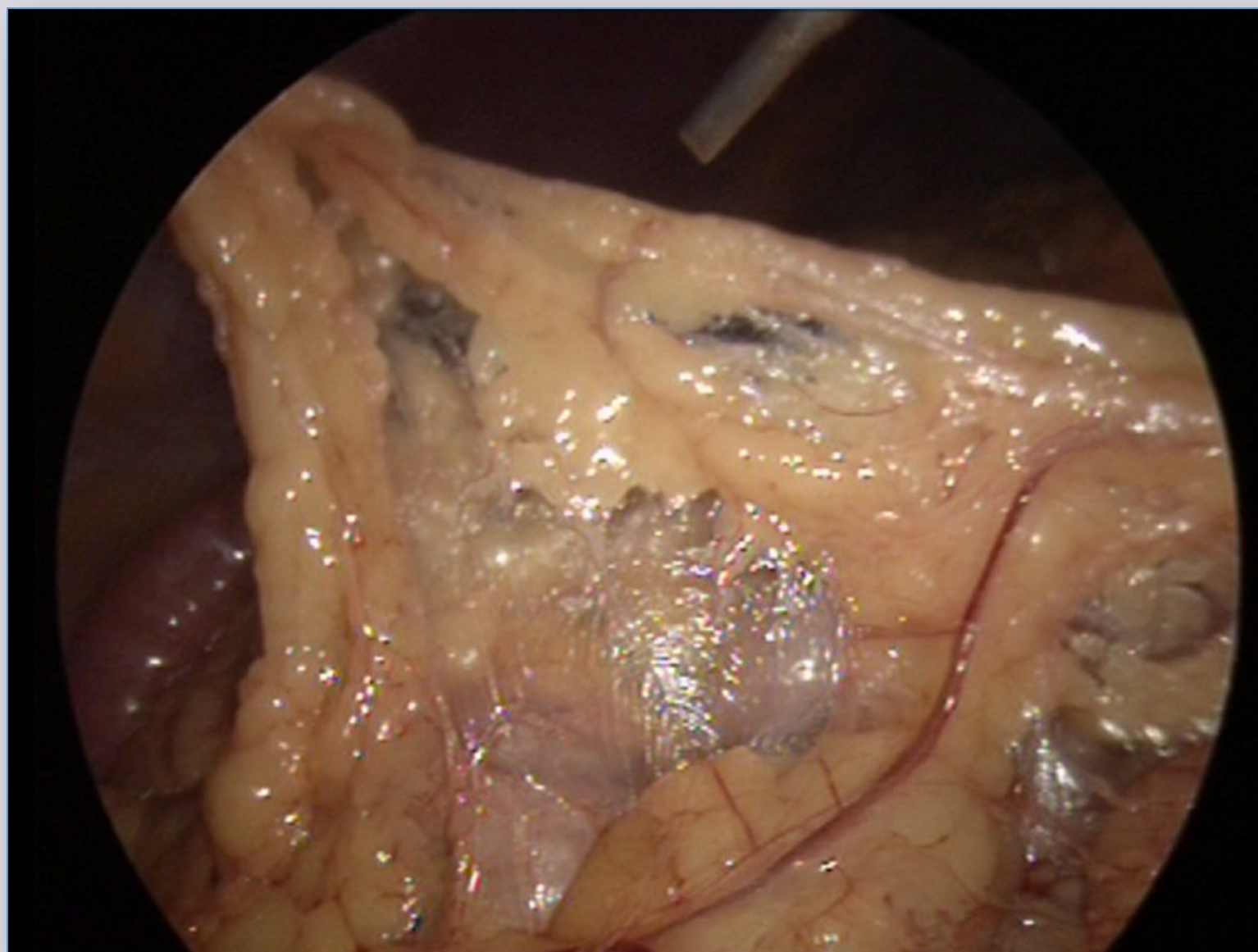
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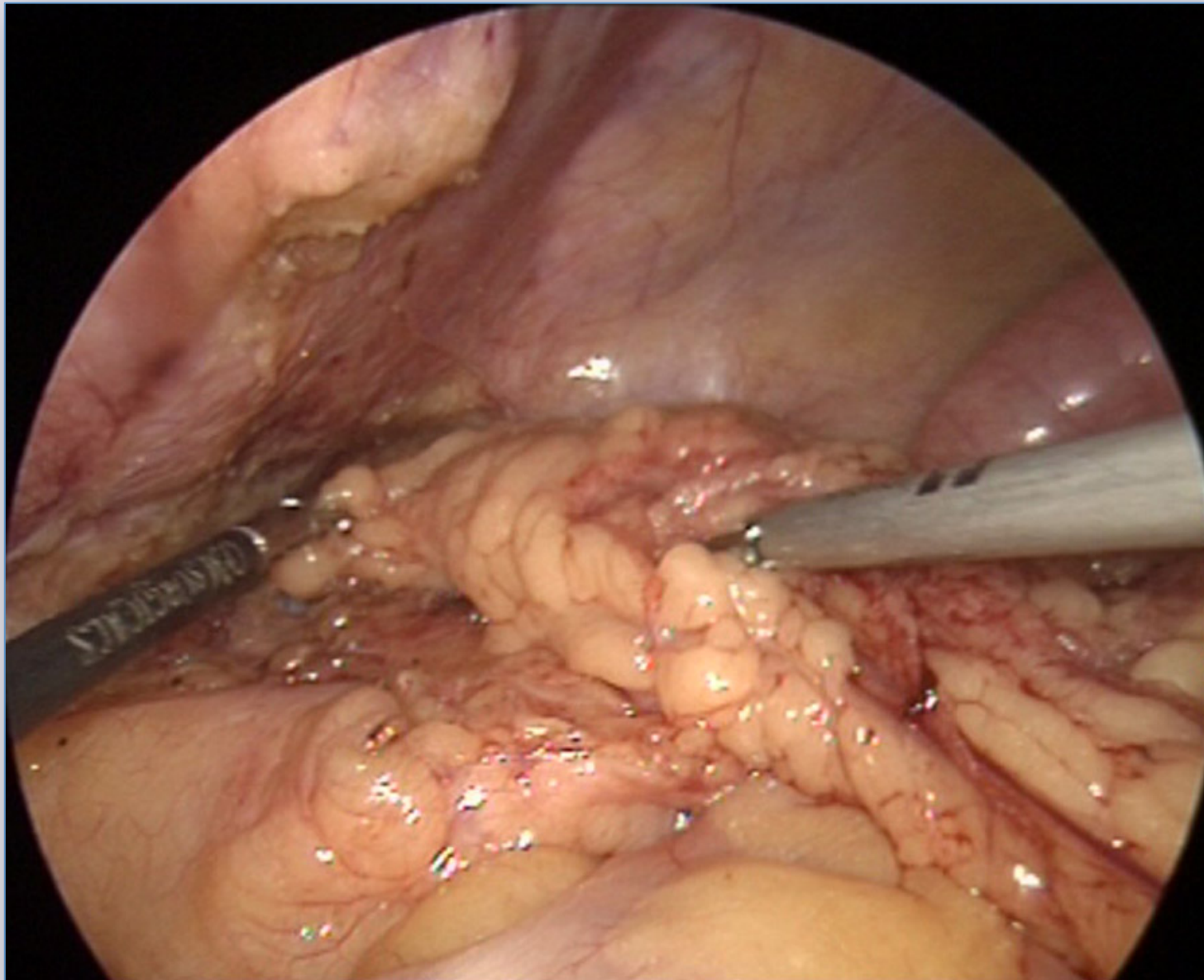
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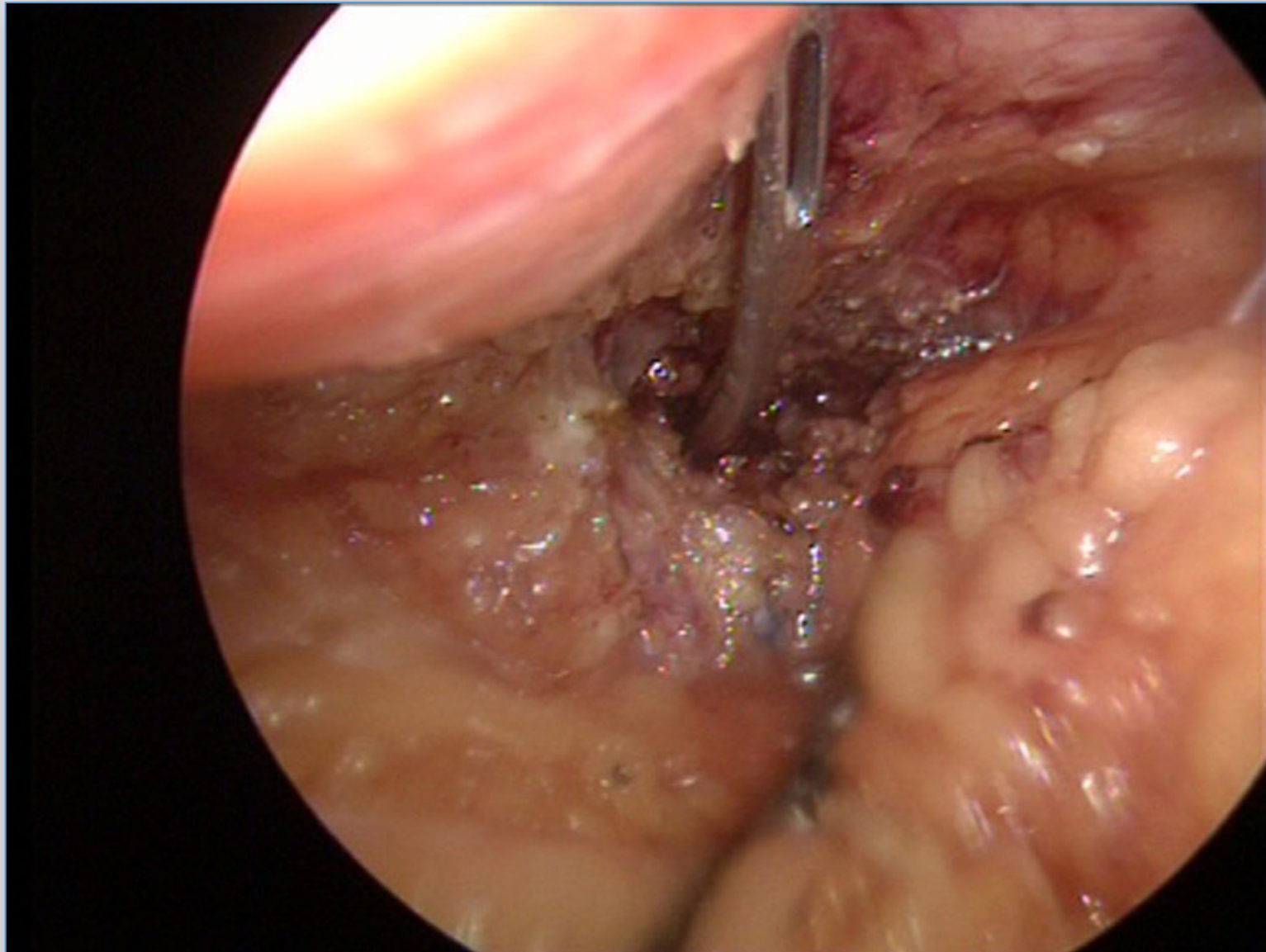
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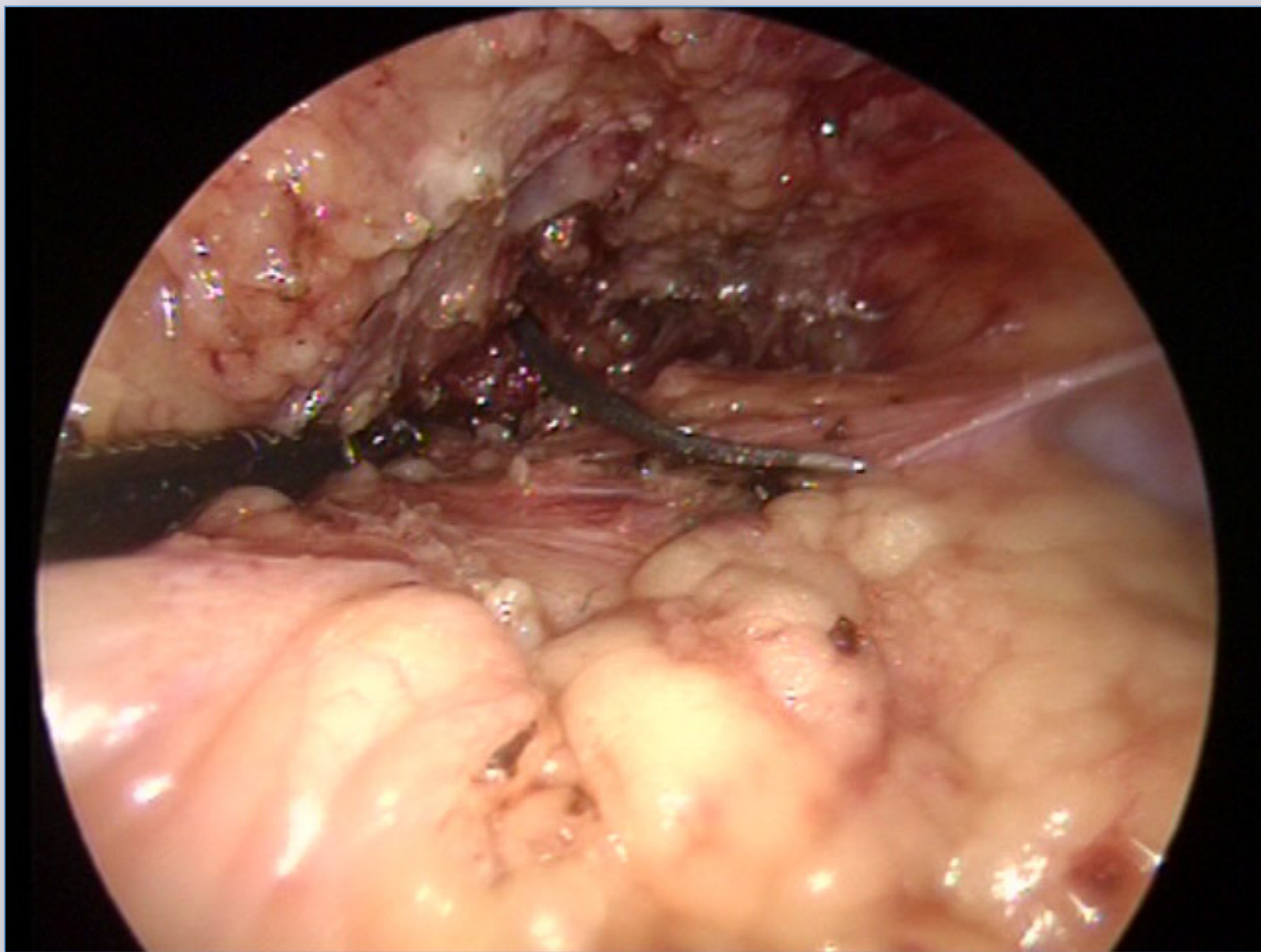
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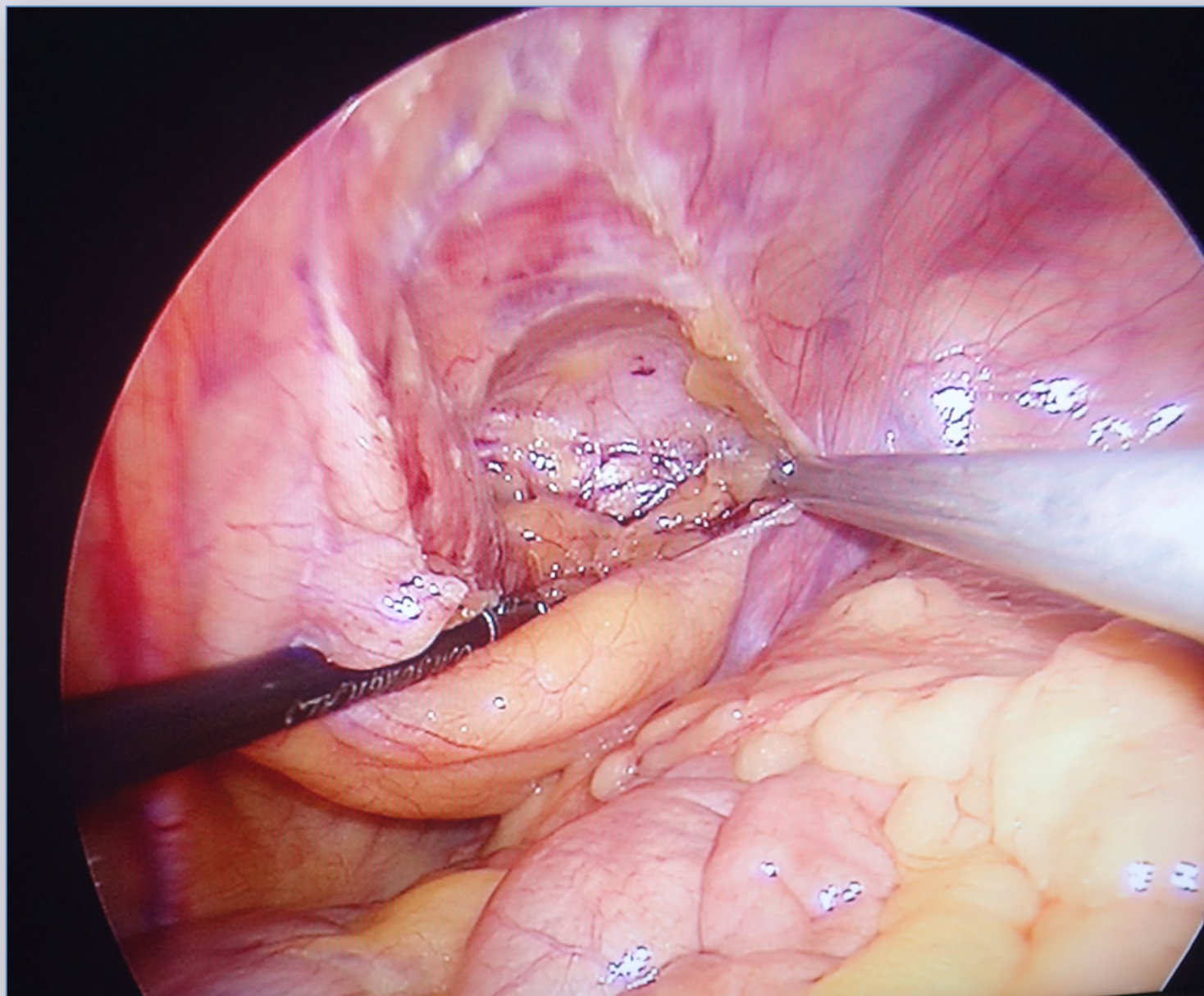
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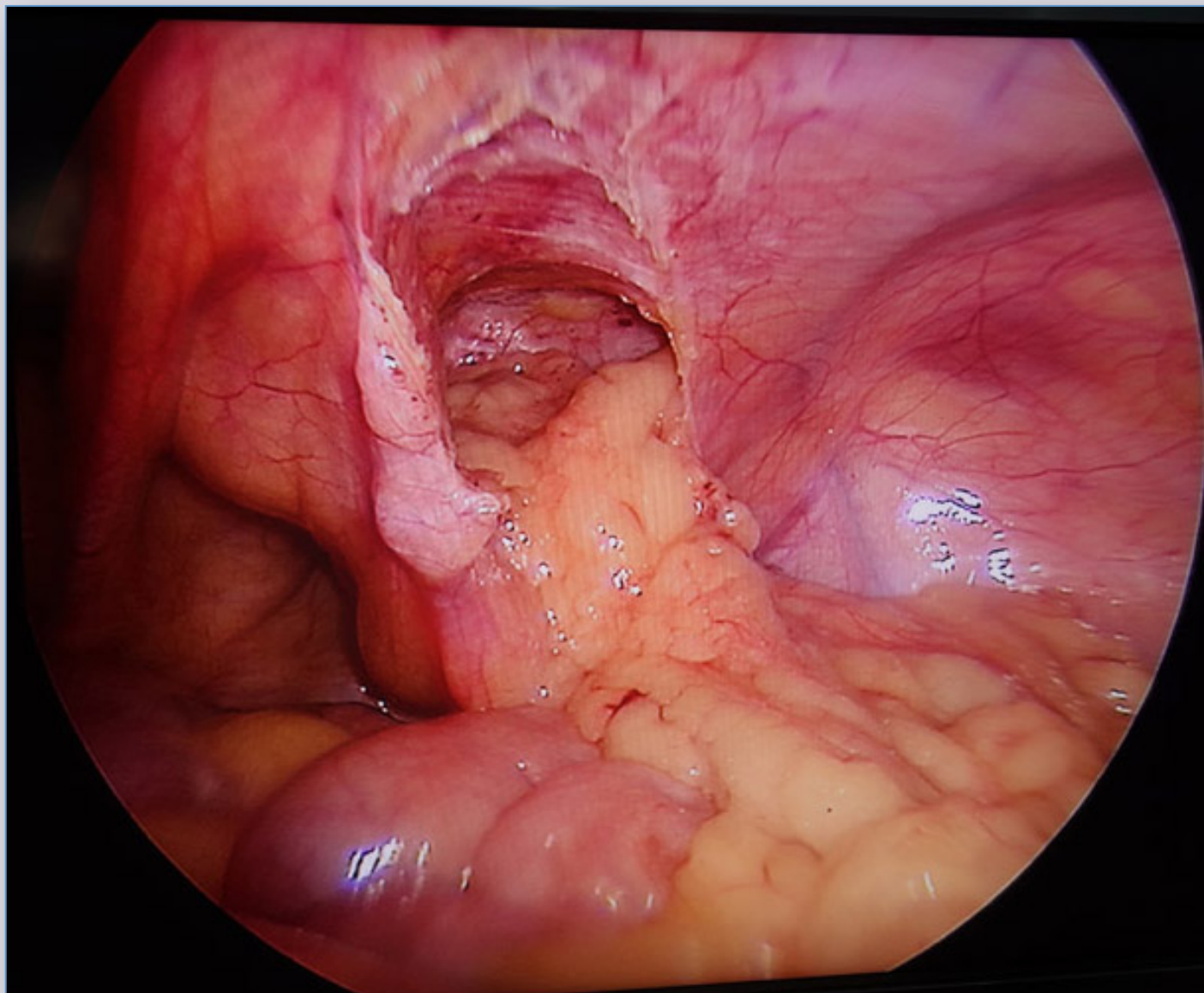
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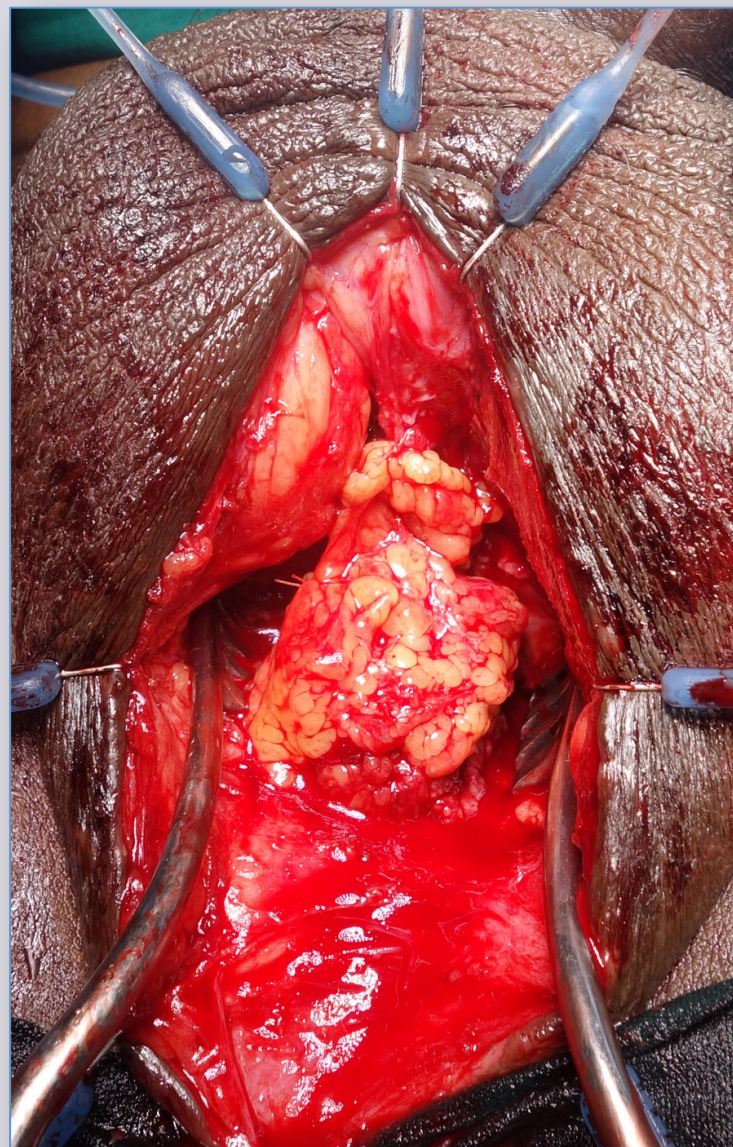
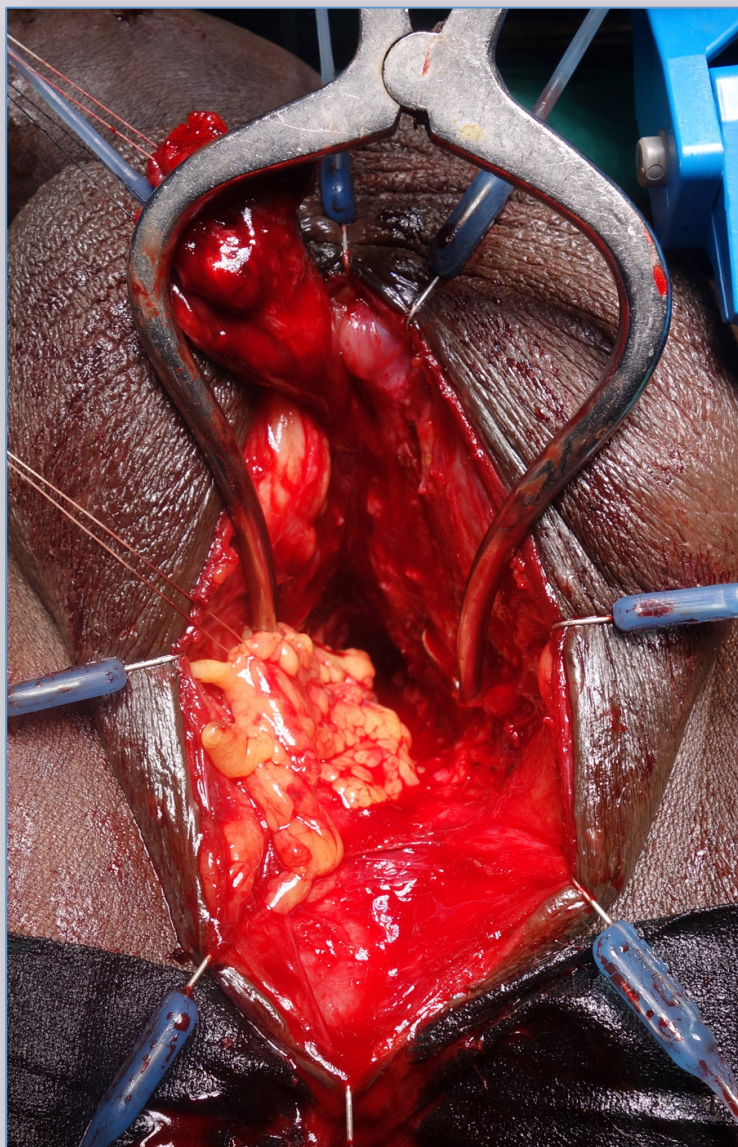
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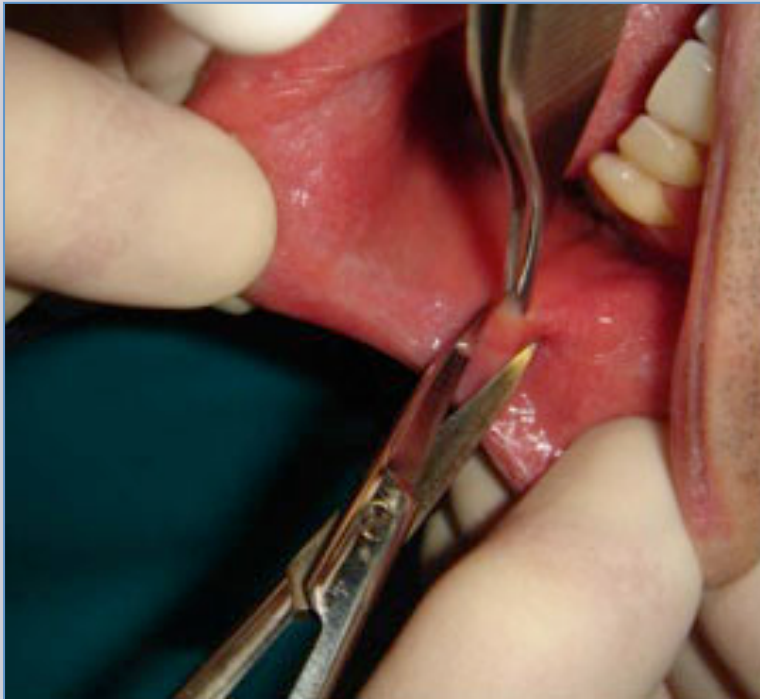
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Future Evolution of the Urethral Surgery

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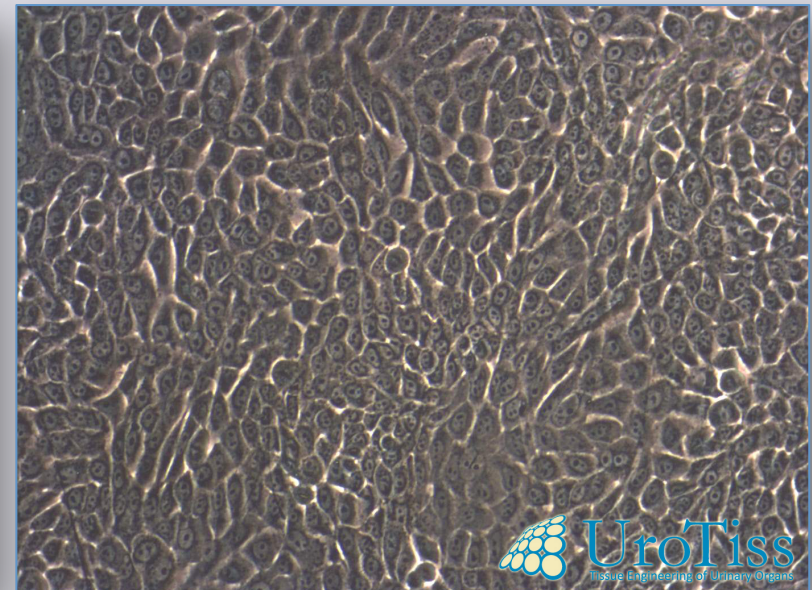
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Urethroplasty using tissue engineered oral mucosa



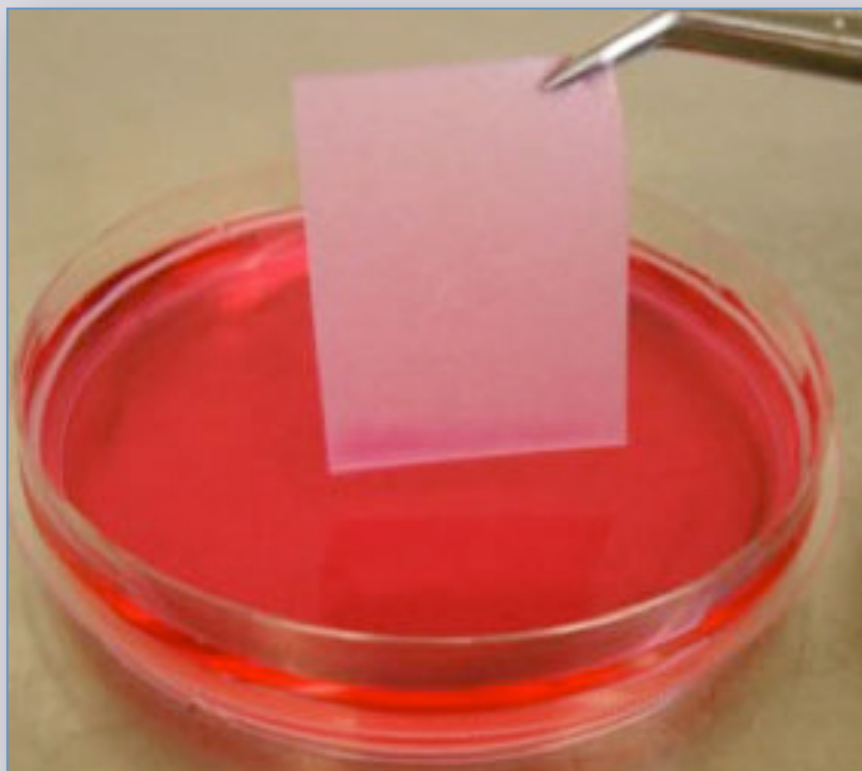
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In the GMP laboratory, the oral cells were expanded and cultured on the surface of a biocompatible scaffold

MukoCell



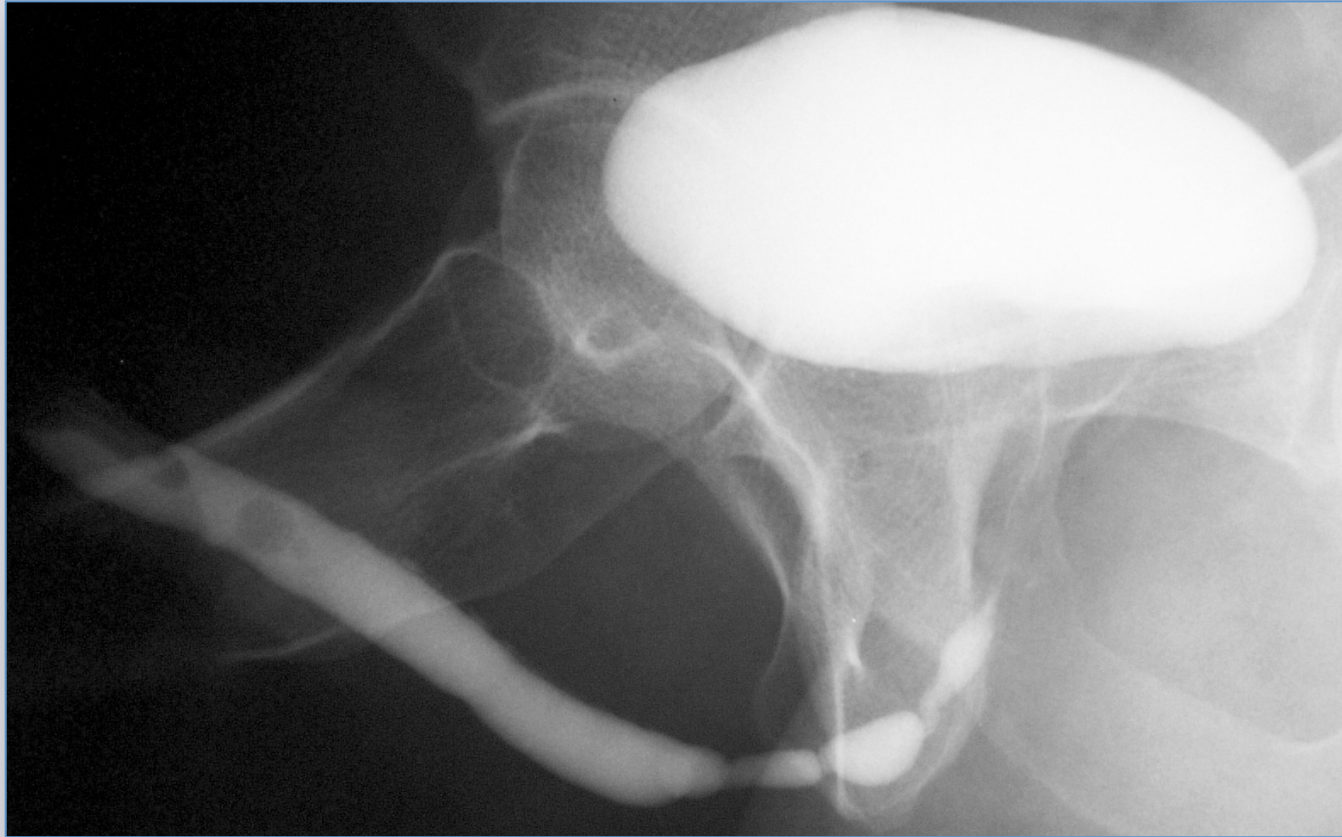
3 weeks later



48 hours for transplant

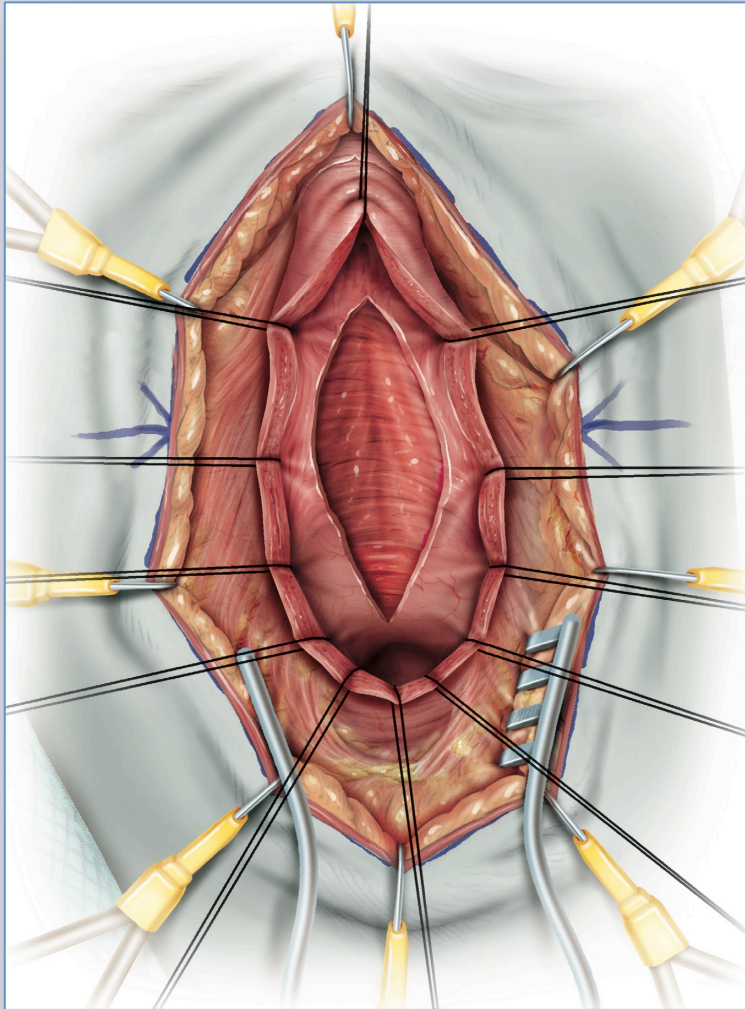
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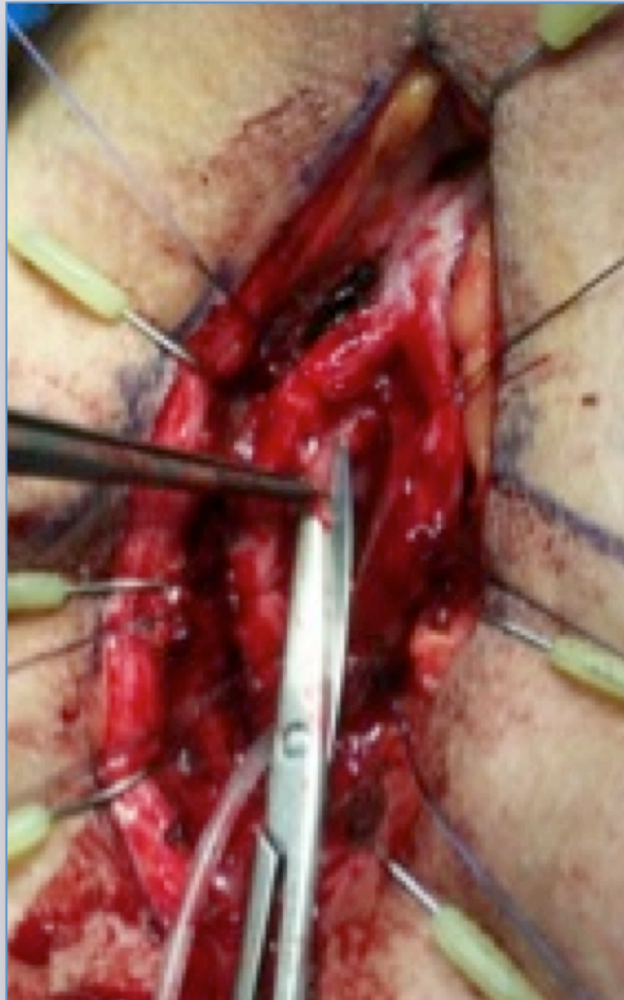


On this preliminary phase of the study we decided to include only patients with bulbar urethral stricture ranging from 2 to 6 cm in length. The aim of our preliminary study was investigating the safety, feasibility and effectiveness of MukoCell in urethral reconstruction.

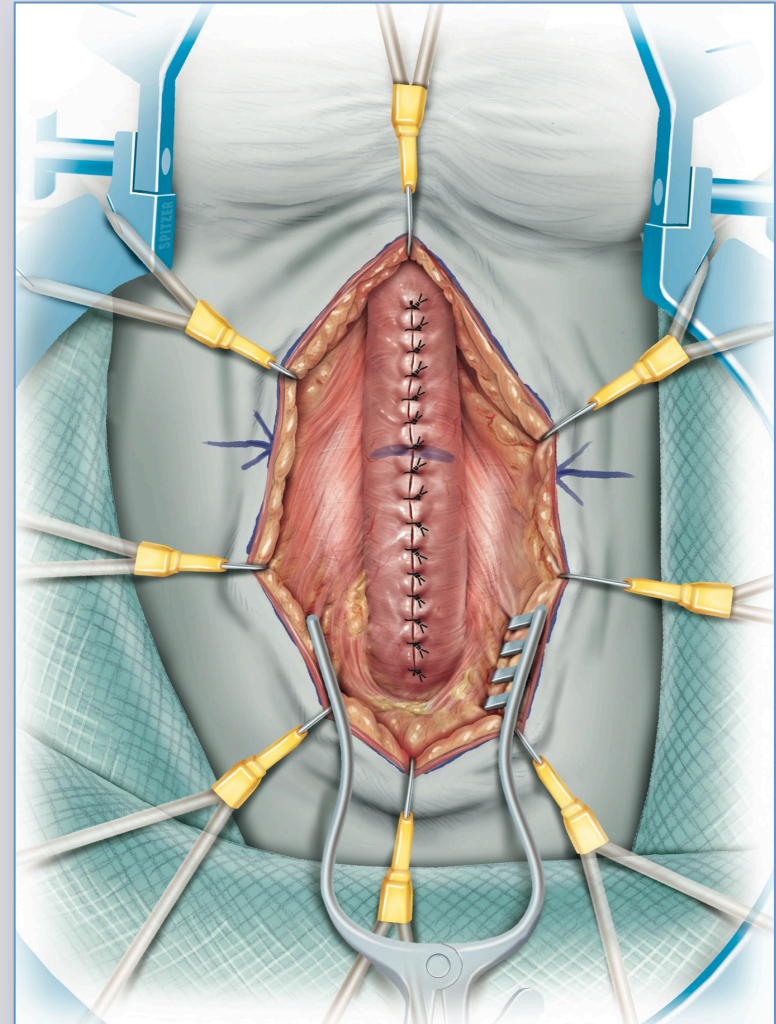
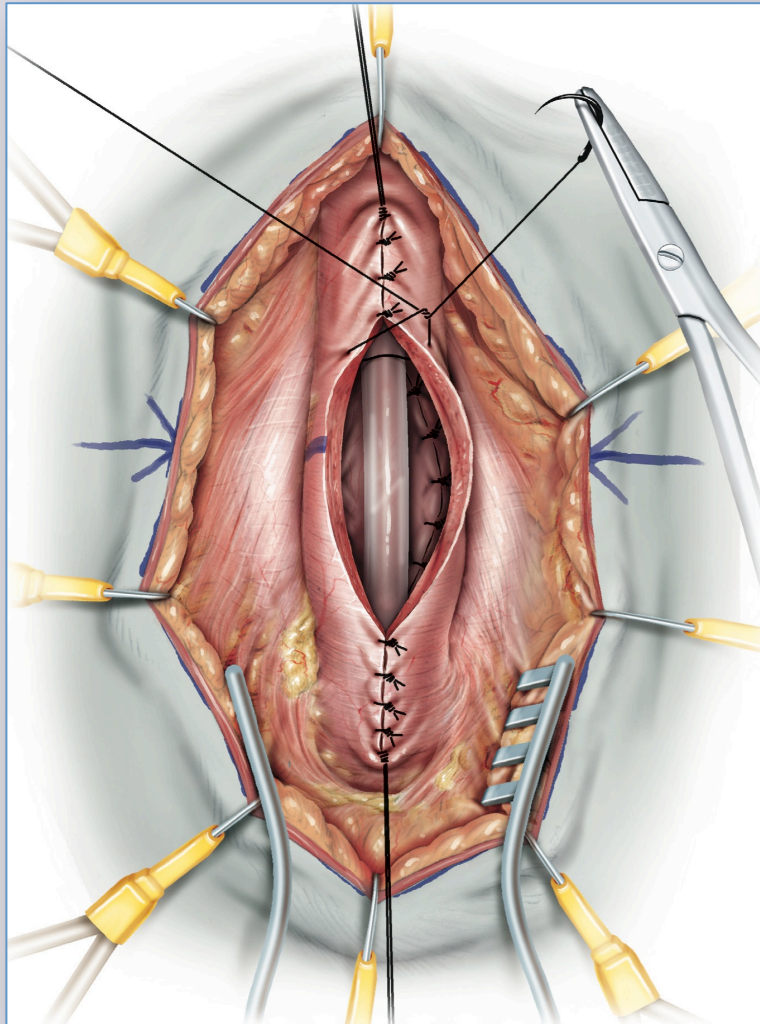
Dorsal inlay technique



Dorsal inlay technique



Dorsal inlay technique



Post-operative voiding cysto-urethrography



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