W1: Innovations in Obstetric Fistula Surgery

Workshop Chair: Sohier Elneil, United Kingdom
13 September 2016 09:00 - 10:30

Start	End	Topic	Speakers
09:00	09:15	Welcome and Overview of OF Complications	Christopher Payne
09:15	09:45	Evaluation / Treatment of Post OF Incontinence	Dirk de Ridder
09:45	10:10	Sexual Dysfunction / Vaginoplasty After OF Surgery	Fekade Ayenachew
10:10	10:30	Questions	All

Aims of course/workshop

- Understand that a large percentage of patients suffer ongoing problems after “successful” OF surgery.
- Explain the types of post-OF urinary incontinence and the risk factors
- Develop a logical, efficient approach to evaluation of post-OF incontinence
- Describe the surgical treatment options for post-OF incontinence
- Identify techniques for prevention and treatment of post-OF sexual dysfunction

Target Audience

Physicians, Physiotherapists, Nurses, Paramedical Staff, Health Economists

Advanced/Basic

Advanced

Dirk De Ridder

Obstetric fistula can be successfully closed in many women. In some women incontinence will persist due to a persistent fistula. In other women stress incontinence and/or OAB and/or poor bladder compliance can lead to severe incontinence.
We will discuss preventive measures that can be taken during the fistula repair as well as the diagnostic possibilities and treatment options for post OF repair incontinence.

Complications of Obstetric Fistula Surgery: the hole is closed but all is not well

Christopher K. Payne, MD

Vista Urology & Pelvic Pain Partners
Emeritus Professor of Urology, Stanford University

Christopher Payne, MD

ICS 2016 TOKYO

Affiliations to disclose†:

Allergan—consultant
Astellas—consultant
Seikagaka—consultant

† All financial ties (over the last year) that you may have with any business organisation with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

- ☐ Self-funded
- ☐ Institution (non-industry) funded
- ☒ Sponsored by: *ICS Board of Trustees*

Workshop Reminders

All handouts available on ICS website

Evolving World of Obstetric Fistula

- **The past: develop awareness**
  - **Lewis Wall**
  - **Walk to the Beautiful**
  - **Nicholas Kristof**
- **The present: significant progress**
  - **Many outstanding fistula surgeons**
  - **Declining numbers of cases**
  - **Rising awareness of obstetric complications**
- **The future: safe deliveries for all**

OF in Transition

- **Fewer cases, better surgeons → OUTCOMES**
- **Parallel to studying SUI surgery 1990s**
- **To know outcome we need:**
  - **Anatomic outcome**
  - **Functional outcome**
  - **Patient perspective**
  - **Durability**

Lessons from one center

6 Month Follow-up OF Repair

- Anatomic outcome—Dye test
- Functional outcome—no
- Patient perspective—wet or dry
- Durability—6 months

Ouedraogo, I, et. al.: Int Urogyn J, *in press*

6 Month Follow-up OF Repair

Difficulty of Repair	Number of Cases	"Closed and Dry"	"Closed but Wet"	Failed Repair
Easy	98	88 (90.0%)	3 (3.1%)	7 (7.1%)
Intermediate	99	54 (54.5%)	22 (22.2%)	23 (23.2%)
Difficult	187	65 (34.8%)	38 (20.3%)	84 (44.9%)
TOTAL	384 (100%)	207 (53.9%)	63 (16.4%)	114 (29.7%)

Ouedraogo, I, et. al.: Int Urogyn J, *in press*

6 Month Follow-up OF Repair

- Sexual Function—No data
- Functional outcome—No data
- Patient perspective—Important/Limited
- Durability—Significant contribution

Ouedraogo, I, et. al.: Int Urogyn J, *in press*

Our Panelists

- Dr. Dirk de Ridder
  - Professor of Urology
  - Surgeon in Congo
- Dr. Fekade Ayenachew
  - Director of Surgery, Hamlin Fistula Center
  - Urogynecology Fells

Surgery for low fistula

Dirk De Ridder, MD, PhD, FEBU
University Hospitals K.U.Leuven, Belgium
St. Luc Hospital, Kisantu, RD Congo

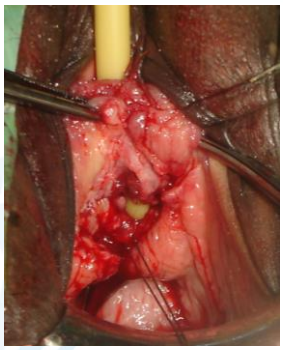
UNIVERSITY HOSPITALS LEUVEN

Complications

- Recurrent /persistent Fistula:
  - Success rate of uncomplicated vesicovaginal fistula (VVF) 70-80%
  - Success rate of complicated VVF 50-60%
- Infections: wound, UTI and pyelonephritis and urosepsis
- Voiding Dysfunction (overactive bladder – incomplete micturition – Dysuria)
- Ureteric obstruction (ligation – fibrosis – injury)
- Outlet obstruction
- Bladder contracture
- Vaginal stenosis (overcorrection – fibrosis)
- Sexual dysfunction (vaginismus – dysparunia)

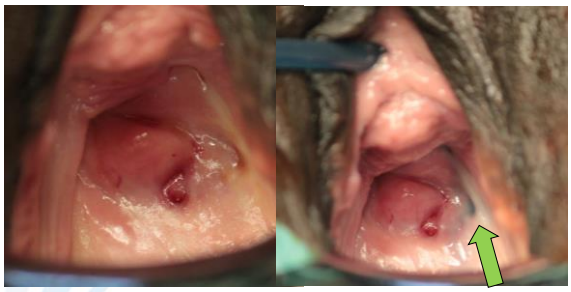
Assessment

- Clinical examination
- Assessment of urethral function
- Assessment of bladder function



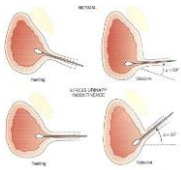
Clinical diagnosis

-Location
-Size
-Urethral involvement
-Scarring
-Ureters
-Posterior wall



Assessment of urethral function

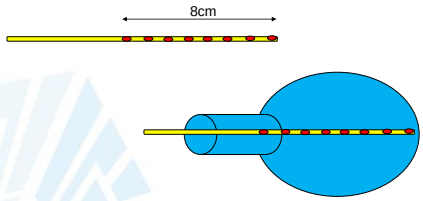
- Inspection and Palpation
- Bonney test during cough & Valsalva
- Measure length with graduated catheter
- Assess mobility
  - E.g. Q-tip test



Assessment of bladder function

- Capacity?
  - Fill with catheter
  - Eye-ball urodynamics
  - 'bladder length'
    - <8cm : reduced bladder capacity (Waaldijk)

Assessing bladder capacity



(Waaldijk)

Eyeball urodynamics

Fill system with blue dye
Stepwise bladder filling by 30cc
Equalizing
Pressure waves can be Detected.

OAB

- History
- Clinical exam
- Urodynamics

TREATMENT

Secondary fistula repair
SUI procedures
Vaginal reconstruction
Ureterosigmoidostomy

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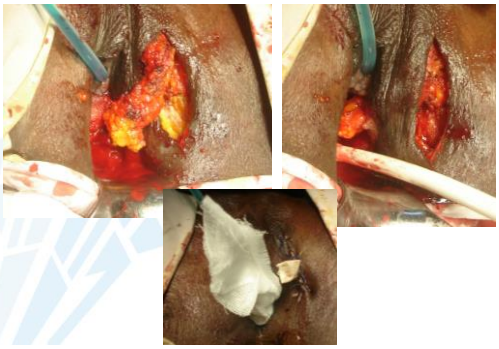
MARTIUS FLAP



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Fistula repair

- Identifying the fistula
- Gaining access and exposures
- Incision, dissection and mobilisation
- Closure of the fistula
- Continence
- Post-op care

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Complex fistula

- **Postoperative incontinence**
  - Urethral involvement OR 8.4
  - Large size: for each cm OR 1.34
  - Vaginal scarring OR 2.4
  - Low bladder capacity OR 4.1
- **Principles of closure**
  - Same as for simple fistula
  - Additionally
    - Maintain urethral length
    - Urethra <2.4cm, urethral defect > 4mm: add slingprocedure
    - If done so: reduction of postop incontinence by 50%

Browning 2004, 2006, Waaldijk 1994

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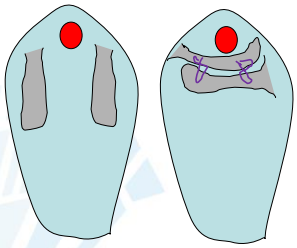
Suburethral fibro-muscular sling



-Bilateral lateral vaginal wall tissue
-Vascular
- bring over midline and suture

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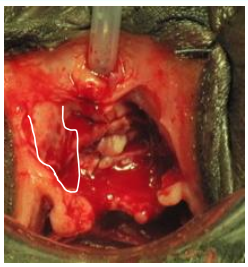
Urethra without support



Dissection of fibromuscular flap

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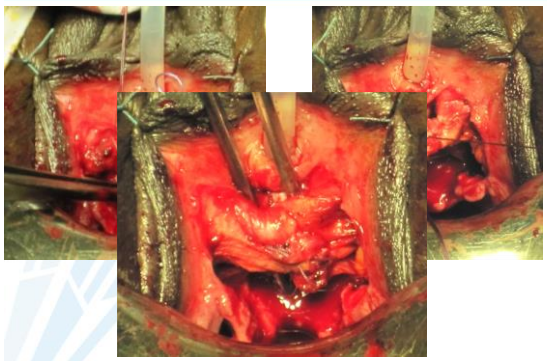
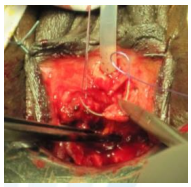
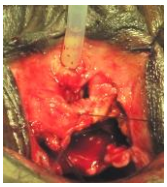




Harvesting of fibromuscular flap



Forming a sling by bringing both fibromuscular flaps together over the midline

Alternative techniques

- Vesical rotational flaps
- Transvesical repairs
- Bladder augmentation techniques with ileal interposition
- Bladder urothelial graft
- Combined abdominal/perineal approach
- Urinary diversion

Goyal 2007, Kapoor 2007

Post-op care

- Bladder drainage 10-14d
- Preferably silicon catheters
  - Larger internal diameter
- High fluid intake
  - Prevent cloth formation, hematuria
- No need for standard antibiotics
- Supervise/train nursing staff
- Provide pelvic floor therapy

Experience with a low-pressure colonic pouch (Mainz II) urinary diversion for irreparable vesicovaginal fistula and bladder extrophy in East Africa

Mark A. Morgan · Mary Lake Polan · Habte H. Melecot · Berhane Debru · Ambereen Sleemi · Amreen Husain

- 35 women , 55% had previous repairs
- LoS 21 days
- FU in 29 pat. was 18 months
- Nighttime incontinence 31%
- Acidosis 91%
- 4 died from sepsis

Int Urogynecol J (2009) 20:1163–1168

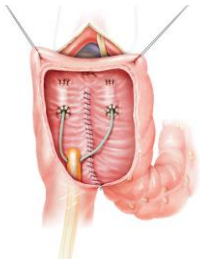
Indications for ureterosigmoidostomy

- Severe scarring
- Absence of urethra
- Minimal bladder capacity

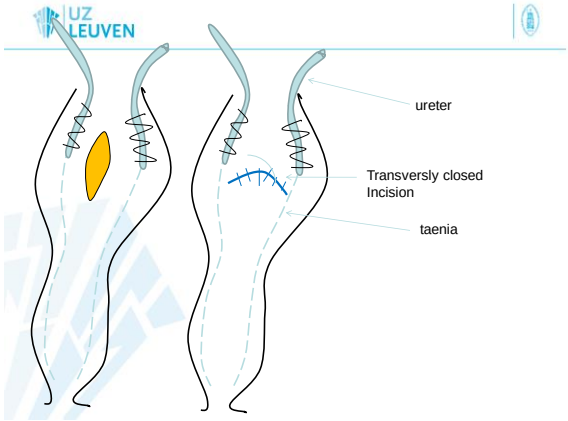
- Anal continence assessment
  - Water enema
  - Digital examination

Sigma-rectum pouch (Mainz pouch II)

Margit Fisch and Rudolf Hohenfellner



2007 BJU INTERNATIONAL



OAB

- Bladder training
- Medication
  - Oxybutinin if available
- Bladder augmentation

Bladder emptying disorders

- Obstruction
  - Urethroplasty ?
- Intermittent catheterisation
  - Reusable catheters

Conclusions

- Complications occur often and must often be investigated with minimal means
- A large armamentarium of skills is required to treat OF complications