Mens Health
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5th Emirates International
UROLOGICAL
Conference

Primary and Redo-penile implant surgery: Lessons learnt

by Antoine Faix (MD, Urologist-Androlologist)

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Men's Health International Surgical Center - Place des Philosophes 18, 1205 Geneva Switzerland

THE JOURNAL OF
SEXUAL MEDICINE

Penile Prosthesis Surgery: Current Recommendations From the International Consultation on Sexual Medicine

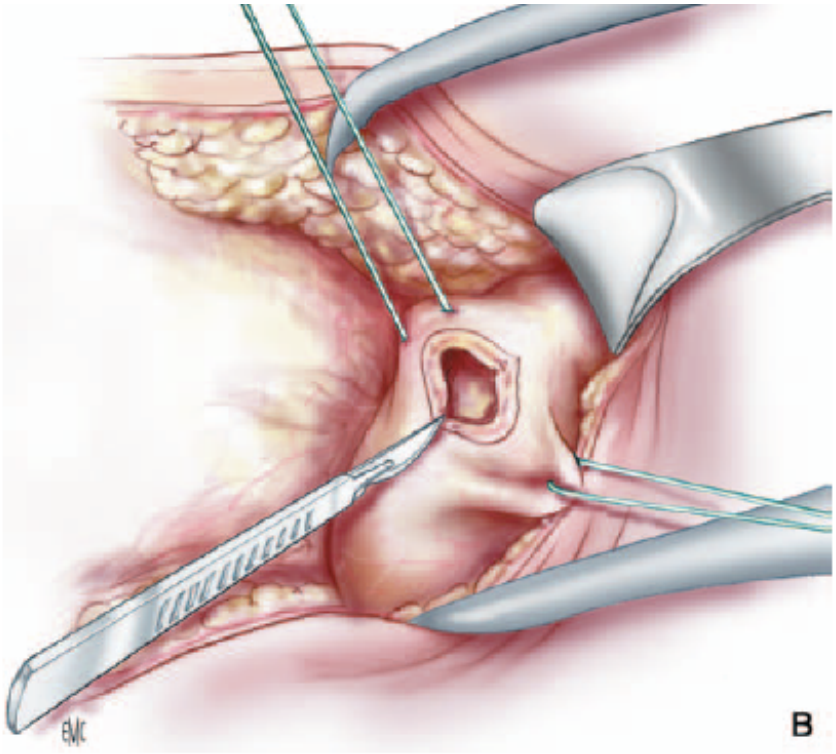
Laurence A. Levine, MD,[1] Edgardo Becher, MD, PhD,[2] Anthony Bella, MD,[3] William Brant, MD,[4] Tobias Kohler, MD,[5] Juan Ignacio Martinez-Salamanca, MD,[6] Landon Trost, MD,[7] and Allen Morey, MD[8]

ABSTRACT

The « basic » lessons for Regular implanters

Consensus 2016

ICSM



When?

The right indication

AND

The right patient

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ABSTRACT

Primary Penile Implant

- Restorating of erectile function in men with **refractory organic erectile dysfunction** (ED) after failure, **rejection** of other treatment options in **motivated patients**
- Informations of **alternative treatment** options, appropriate expectations, and increased risks associated with diabetes, active smoking, and other comorbidities
- **Preoperative informations** of specific potential areas of complication and/or dissatisfaction, **including infection** and its consequences, pain, **decreased length and girth**, injury to surrounding tissues, and mechanical failure.
- AND MOTIVATED AND TRAINED SURGEONS!

Level of evidence 4, strength of recommendation C

Redo Penile Implant

- Any kind of mechanical failure, post-PP ablation or infected PP
- Preoperative informations **of higher risk** of every kind of complication
- AND MOTIVATED AND EXPERT SURGEONS!

When?

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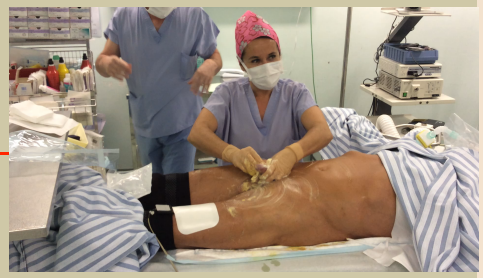
ative informations **of higher risk** of very kind of complication

- AND MOTIVATED AND EXPERT SURGEONS!

Lesson 1 : Information and Experience

How?

Try to avoid sepsis
AND
Try to do the best!



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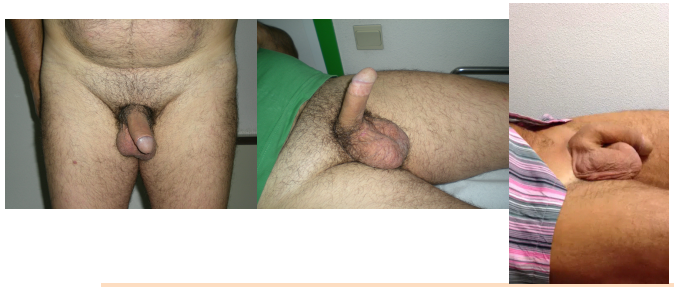
Primary Penile Implant

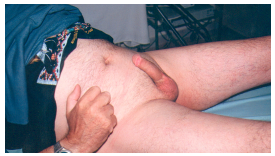
- Use **antibiotic-impregnated or hydrophilic coated devices** if inflatable PP
- Preoperative antibiotics with gram-positive and gram-negative coverage should be given with therapeutic antibiotic levels
- **Avoid traumatic skin** : Shaving vs clipping to remove scrotal hair is left to the surgeon's discretion
- Use **alcohol-based skin preparations** in the operating room as the operative site scrub.
- **Minimize skin and device contact** can decrease inflatable PP (IPP) infection rates.
- **Penoscrotal AND Infra-pubic** are the main approaches for inserting PP according the surgeon

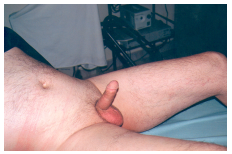
Redo Penile Implant

- Penile implant revision surgery should include the use of **copious irrigation**, preferably with antimicrobials.
- In stable patients with infected PPs, reasonable attempts should be made to **remove all device components.**
- For penile implant infection, surgeons should determine whether and **when to attempt salvage procedure**.
- For the patient with post-explant IPP and corporal fibrosis, **surgeons should be prepared** to perform specialized maneuvers
- Use of **specific cavernotomes**, longer or additional corporotomy incisions, and/or corporal excavation



The choice!





Inflatable PP

- Perfect Implant for young patient without any manual problem
- Flacidity and Erection states
- Need a training before first manipulation (simple step)

Malleable PP

- Malleable implants are recommended for patients with compromised manual dexterity (rhumatological, neurological …) but might be appropriate in other clinical scenario (obesity, personal choice…)
- Be sure that dressing and everyday life will be easy with a permanent « semi-rigid penis »

After?

Take time

AND

Try to do the best!

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Primary Penile Implant

- The clinician should provide adequate postsurgical follow-up to maximize patient satisfaction, assess for potential complications, and assure appropriate device placement and function.

Redo Penile Implant

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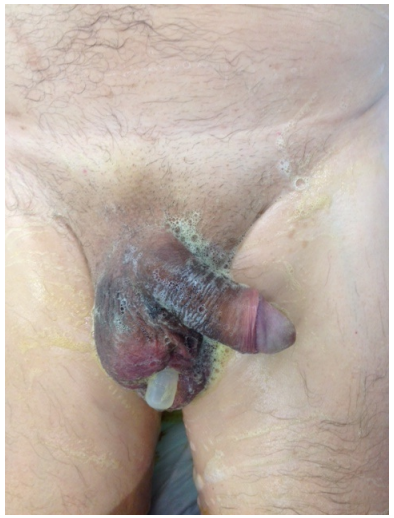
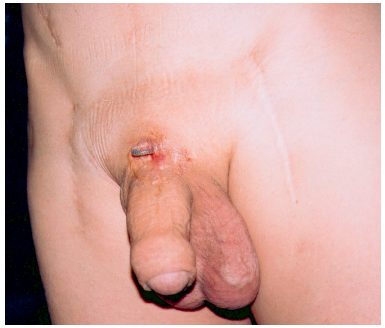
Lesson 3 : Closed Follow-up to optimize patient and couple satisfaction

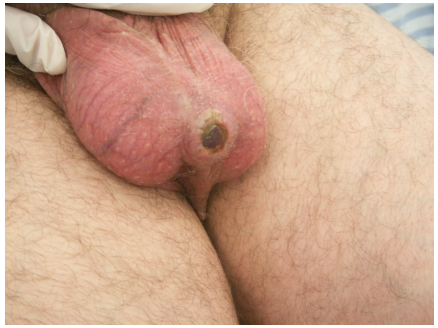
Implants, Mechanical Devices, and Vascular Surgery for Erectile Dysfunction

Wayne J.G. Hellstrom, MD,* Drogo K. Montague, MD,† Ignacio Moncada, MD,‡ Culley Carson, MD,§ Suks Minhas, MD,¶ Geraldo Faria, MD,** and Sudhakar Krishnamurti, MD††

The « specific » lessons for Experts implanters







Sepsis

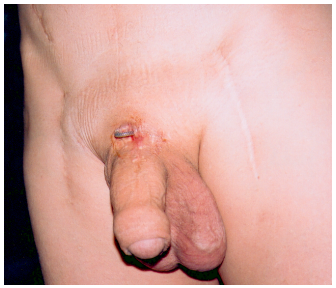
Salvage or not salvage…

Mulcahy JJ. Long-term experience with salvage of infected penile implants. J Urol 2000;163:481–2.

Different situations	Different strategies

• Major sepsis
• Uretral lesion
• Skin necrosis
• Not stabilized comorbidity factors
	• No SALVAGE
	  • Remove all the components
	  • Repair if necessary
	  • Prolonged adapted antibiotics
	  • Stretching therapy before new implantation (Vacuum, Traction…)

• Silent sepsis (in the beginning)
• Erosion pump
• Persistent pain
• Stable patient
	• SALVAGE
	  • Remove all the components
	  • Save the CC dilatation with PP (Malleable or soft PP)
	  • If possible 3 components (depends on the scrotal area)
	  • Prolonged adapted Antibiotics



Salvage Protocol

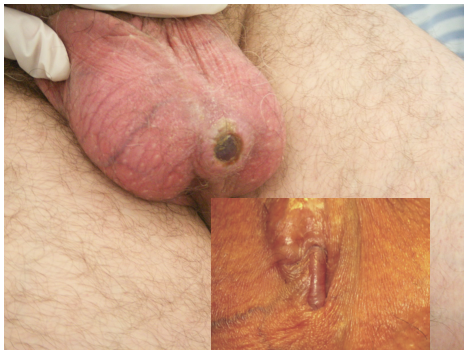


Table 1 Salvage protocol for immediate replacement of infected penile implants

1 Remove all prosthetic parts and foreign material

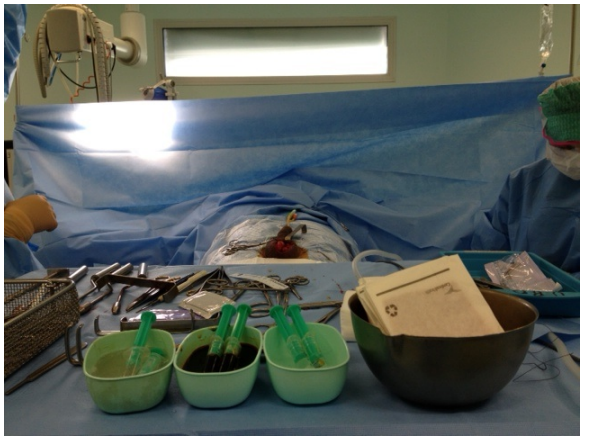
2 Irrigate wound with seven antiseptic solutions
- Antibiotics (kanamycin, bacitracin)
- Half-strength hydrogen peroxide
- Half-strength providone iodine
- Pressure irrigation with 1 g vancomycin and 80 g gentamicin in 5 l irrigating solution
- Half-strength betadine
- Half-strength hydrogen peroxide
- Antibiotics (kanamycin, bacitracin)

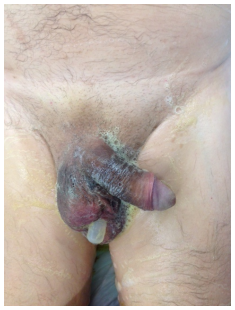
3 Change gown, gloves, surgical drapes and instruments

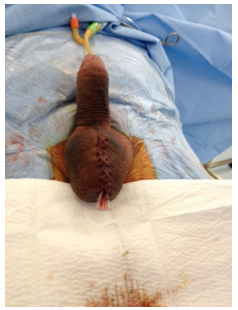
4 Insert new prosthesis

5 Close wounds with no drains or catheters

6 Oral antibiotics for 1 month







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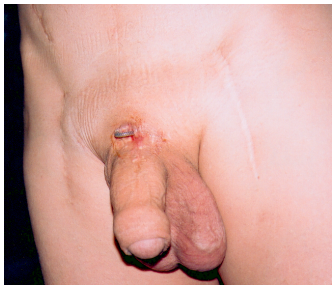

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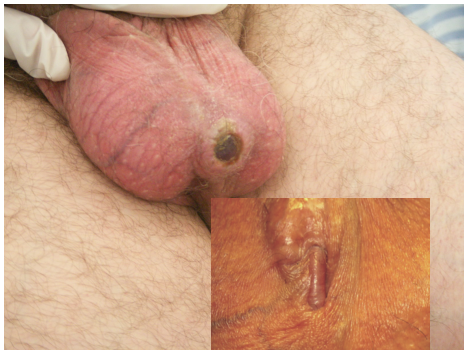

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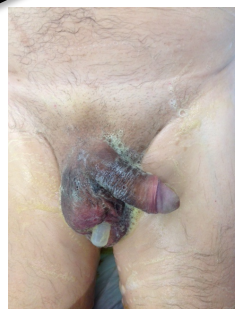
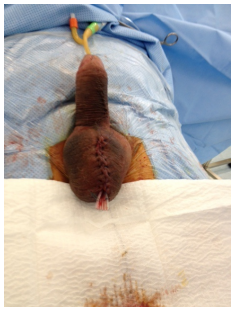
Lesson 4 : Do the best to keep space in CC or Redo ASAP …





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Redo after Mechanical Failure

How to manage…

Risk of Infection With an Antibiotic Coated Penile Prosthesis at Device Replacement for Mechanical Failure

Robert Abouassaly,* Kenneth W. Angermeier† and D. K. Montague‡,§

From the Section of Prosthetic Surgery and Genitourethral Reconstruction (KWA, DKM), Glickman Urological Institute (RA), Cleveland Clinic Foundation, Cleveland, Ohio

Different situations

- Usually after many years

Prosthesis	Mechanical %survival (95% CI)
All*	
1 year	97.6 (96.8, 98.1)
5 years	88.9 (87.4, 90.3)
10 years	79.4 (77.0, 81.5)
15 years	71.2 (65.4, 76.3)

J Sex Med 2007;4:1074–1079

TABLE 3. *Intraoperative findings given as the cause of mechanical failure*

	No. Pts (%)
Cylinder leak	25 (45)
Tubing leak/break	7 (13)
Cylinder crossover	3 (5.5)
Connector leak	2 (3.5)
Reservoir leak	2 (3.5)
Poor glans support (supersonic transporter deformity)	2 (3.5)
Pump malfunction	2 (3.5)
Dissatisfaction	1 (1.8)
Fluid loss not otherwise specified	11 (20)

Abouassaly J Urol 2006 Vol 176 2471-2473

Surgical Strategies

- 3 components change
  - Excepted if recent implantation
  - Reservoir +/- other side
  - Repair if necessary (distal erosion, graft, etc…)
- How to optimize?
  - Mini-Salvage protocol
  - Longer cylinders?

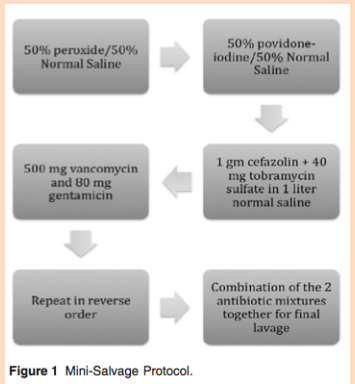
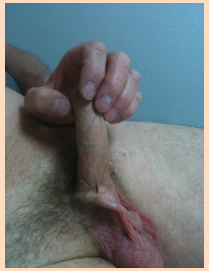


Figure 1 Mini-Salvage Protocol.



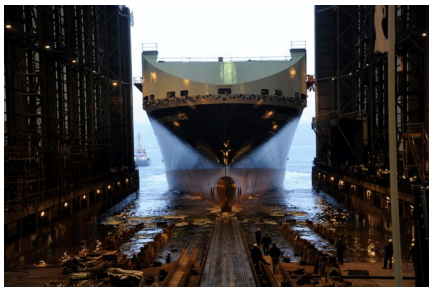
Upsizing of Inflatable Penile Implant Cylinders in Patients with Corporal Fibrosis

Steven K. Wilson, MD,* John R. Delk II, MD,* John J. Mulcahy, MD, PhD,† Mario Cleves, PhD,‡ and Emad A. Salem, MD*

*Department of Urology, University of Arkansas for Medical Sciences, Little Rock, AR, USA; †Wishard Memorial Hospital, Indianapolis, IN, USA; ‡Arkansas Center for Birth Defects Research and Prevention, University of Arkansas, Little Rock, AR, USA

Table 4 Downsize and final cylinder lengths (cm) by etiology

	Cylinder				
Etiology	Downsized Mean (SD)	Standard substitution Mean (SD)	Mean increase	% Increase	*P* value
Infection removal (N = 29)	14.5 (1.4)	16.7 (1.4)	2.2	15.4	<0.0001
Priaprism (N = 8)	18.4 (1.0)	18.8 (1.0)	0.4	2.0	0.0796
Total (N = 37)	15.4 (2.1)	17.2 (1.6)	1.81	12.5	
	P < 0.0001	*P* = 0.0001			



J Sex Med 2006;3:736–742

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Lesson 5 : Change is usually an easy procedure with the new generation of PP, with keeping in mind the risk of sepsis

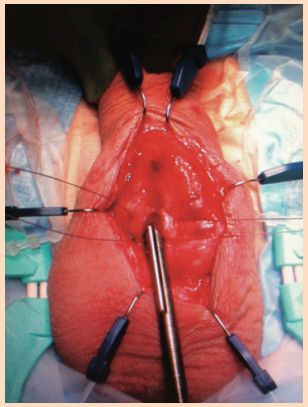
J Sex Med 2006;3:736–742

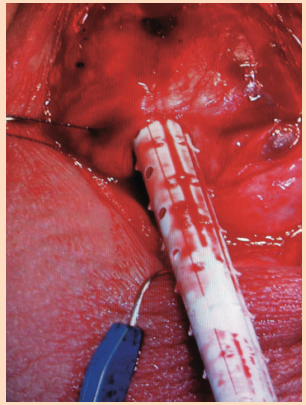
Redo after sepsis

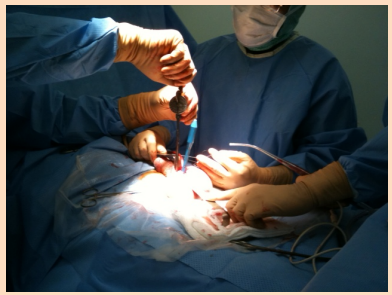
How to be prepared!…

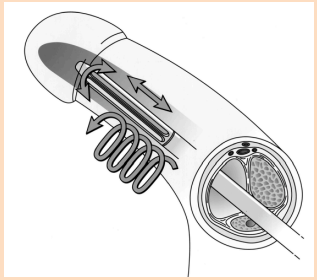
Different tools

- Specific cavernotomes (Mooreville,Rossello…)
- Different strategies according the situation



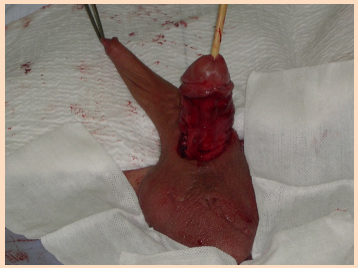


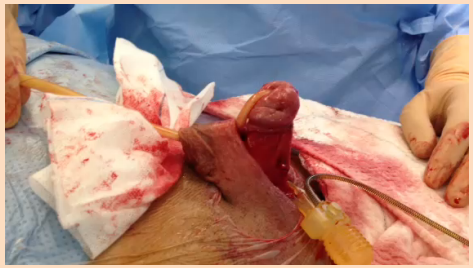


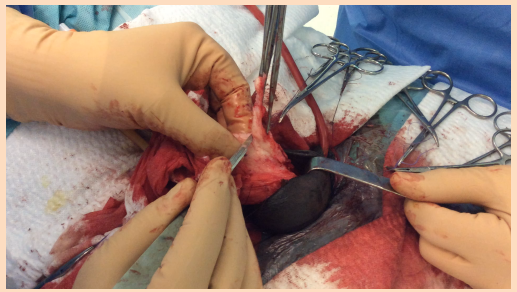


Different strategies

- Good exposure of cavernotomies +/- extensive
- +/- double approach
- +/-Extensive cavernectomies







Redo after sepsis

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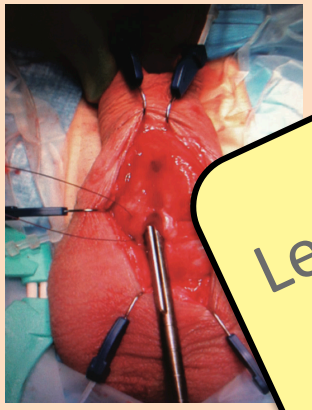

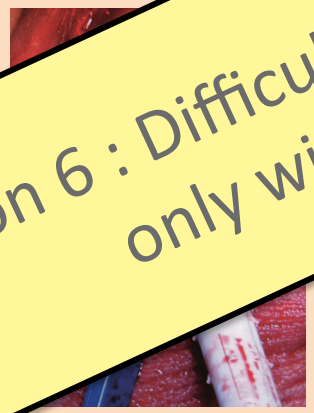

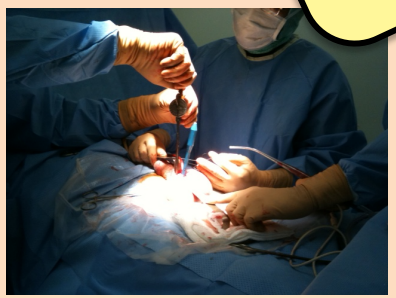

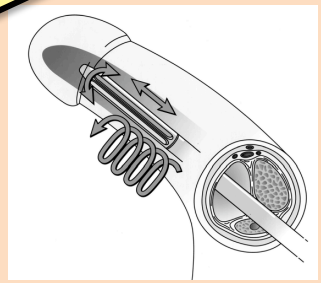

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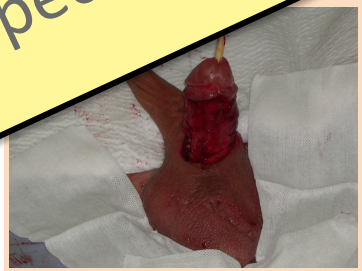
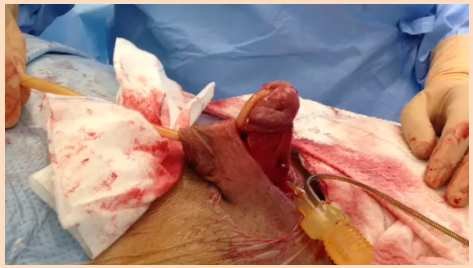
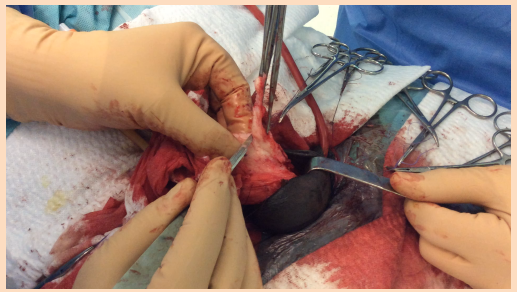






Lesson 6 : Difficult procedure for Experts only with specific tools!

Post-Priapism
a specific situation!…

THE JOURNAL OF
SEXUAL MEDICINE

Penile Prosthesis Surgery: Current Recommendations From the International Consultation on Sexual Medicine

Laurence A. Levine, MD,[1] Edgardo Becher, MD, PhD,[2] Anthony Bella, MD,[3] William Brant, MD,[4] Tobias Kohler, MD,[5] Juan Ignacio Martinez-Salamanca, MD,[6] Landon Trost, MD,[7] and Allen Morey, MD[8]

ABSTRACT

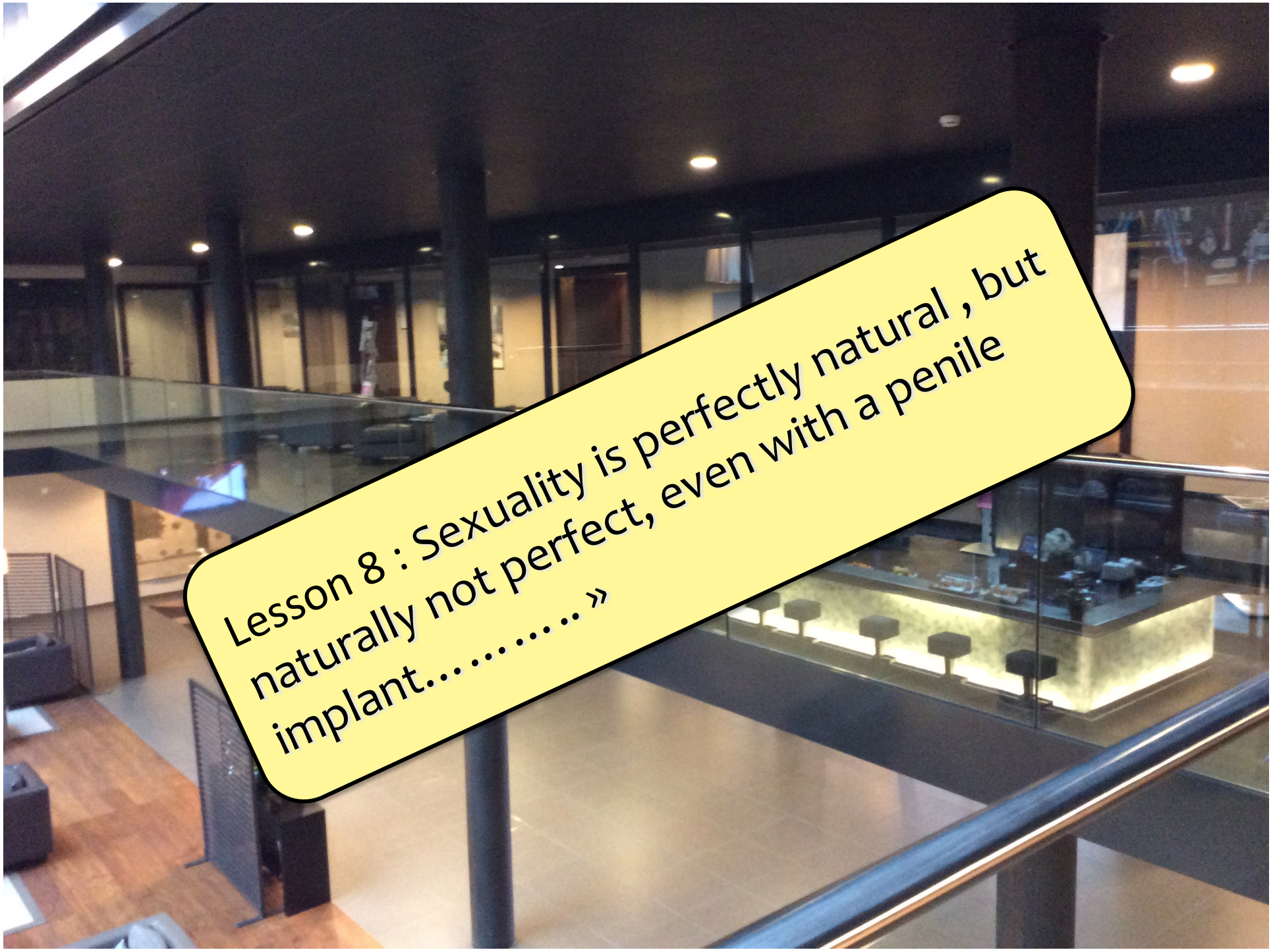
As soon as possible….

- If late, same situation (often worst!) as Redo after sepsis
- **PP to be considered after 72 hours priapism** without resolution despite adequate treatments (MRI+/- Biopsy)
- If early situation (2 weeks post acute priapism not resolved)

Specific points

- Be careful in case of Al Ghorab procedure for the distal dilatation
- Be careful in case of Quackels procedure for the medial dilatation
- Double cavernotomies sometimes necessary

- Psychological management


Lesson 8 : Sexuality is perfectly natural , but naturally not perfect, even with a penile implant…….. »

Thank you

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Mens Health

INTERNATIONAL SURGICAL CENTER

SWITZERLAND