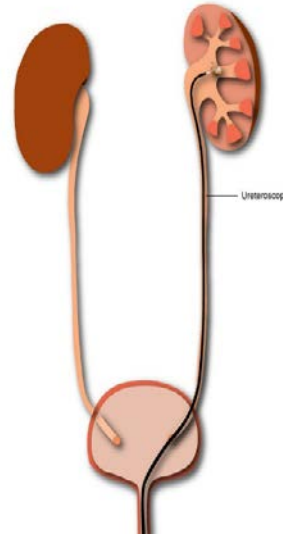




Fundació Puigvert



Stone Equipment is not suitable for UTUC

Alberto Breda, MD, PhD

Chief of the Uro-Oncology Division

Chief of the Kidney Transplant Surgical Team

Autonoma University of Barcelona at Fundació Puigvert

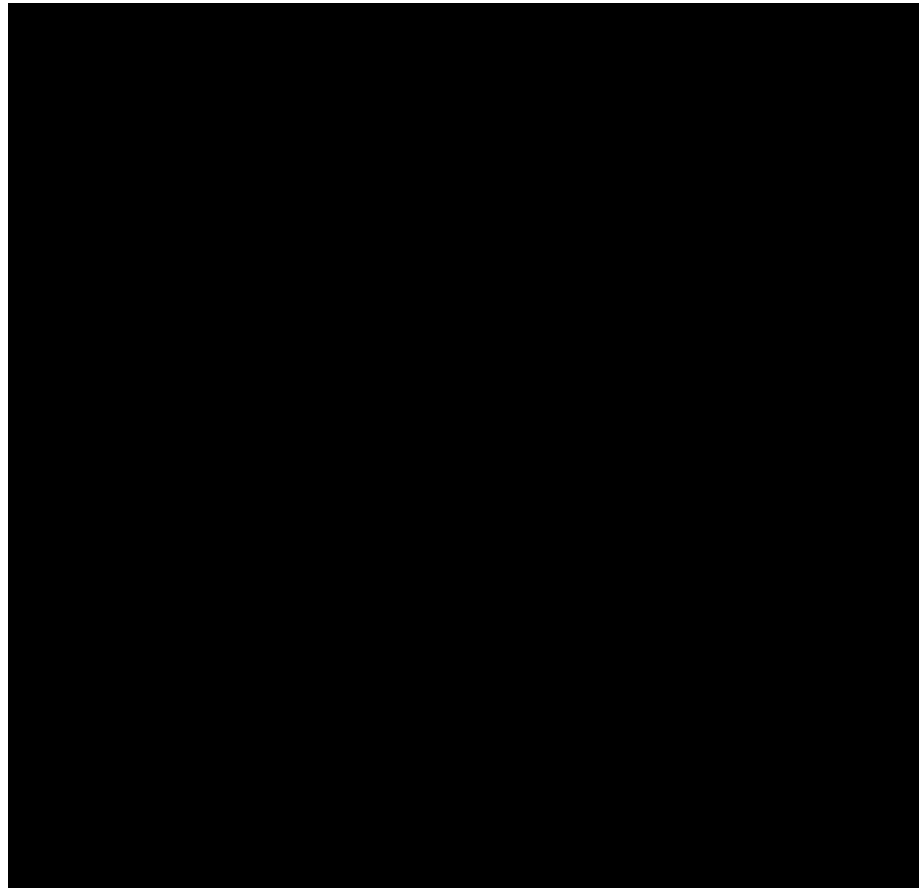


Holmium vs. Thulium?

- Review
- Introducing the idea of continuous vs pulsate wave



Holmium vs. Thulium?





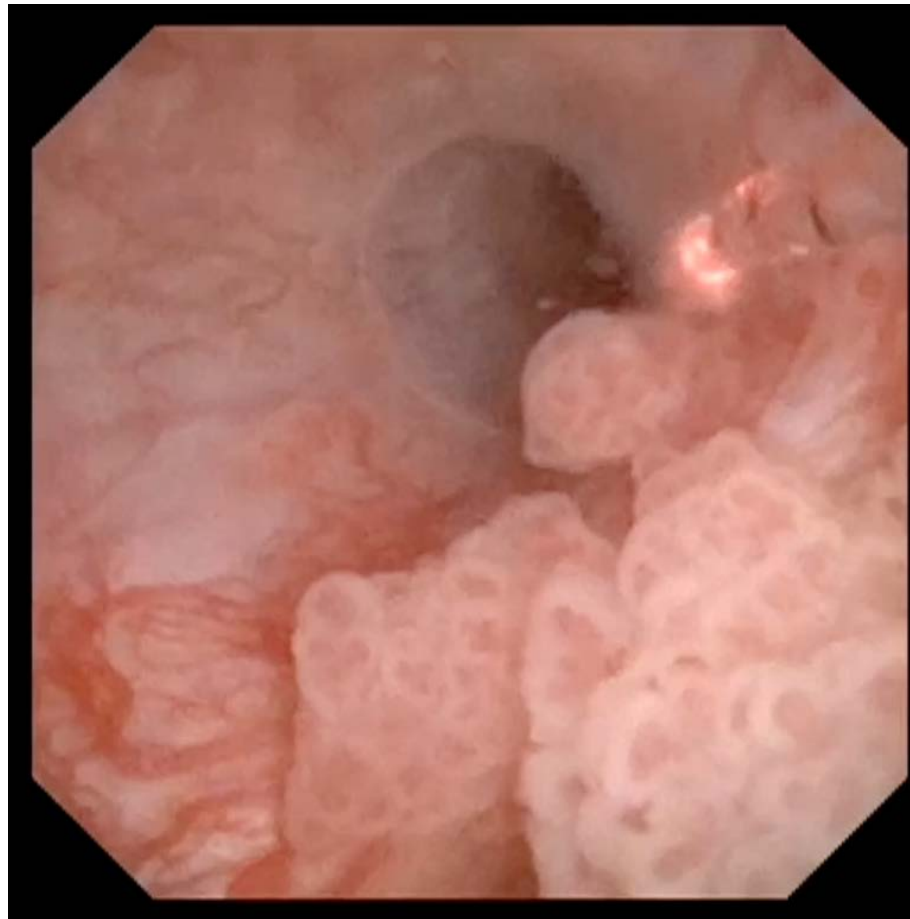
Thulium superior and with equal Cancer Control

- Fiber Tip Stability 5.5/8.75
- Fiber Tip Precision 5.5/8.5
- Ability to ablate tumor 6/9
- Mucosa perforation 3.5/7.5
- Coagulation 5/8.5

Laser??



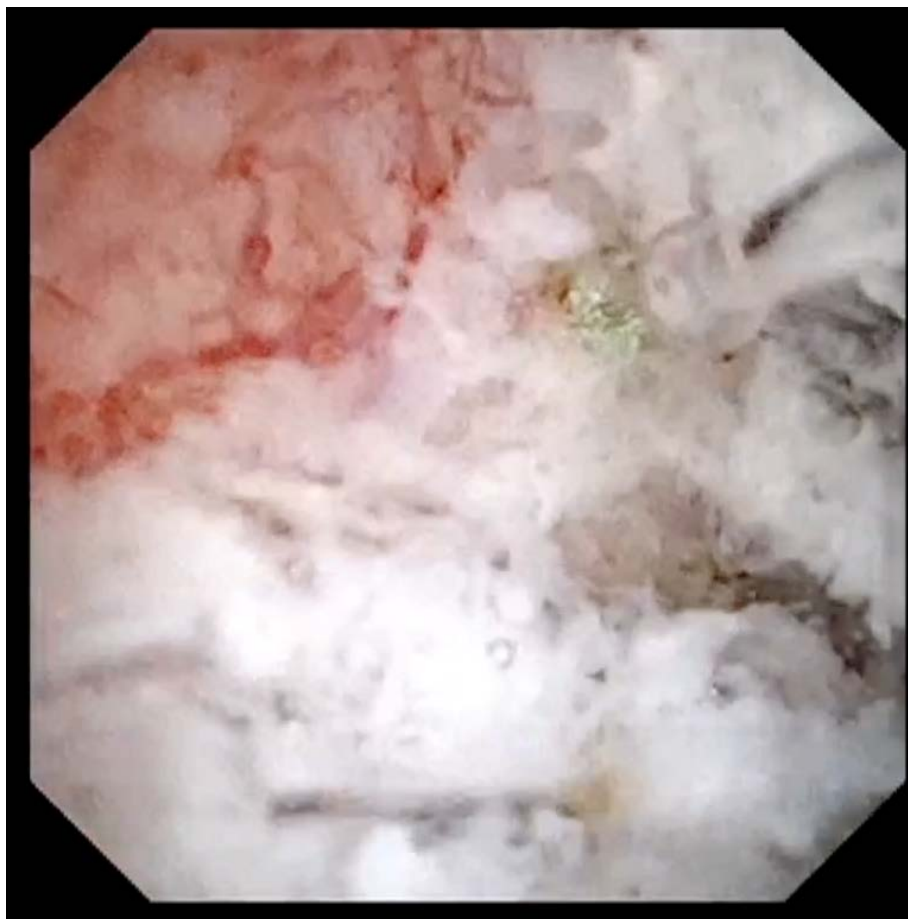
Holmium vs. Thulium?



Laser??



Holmium vs. Thulium?



Laser??



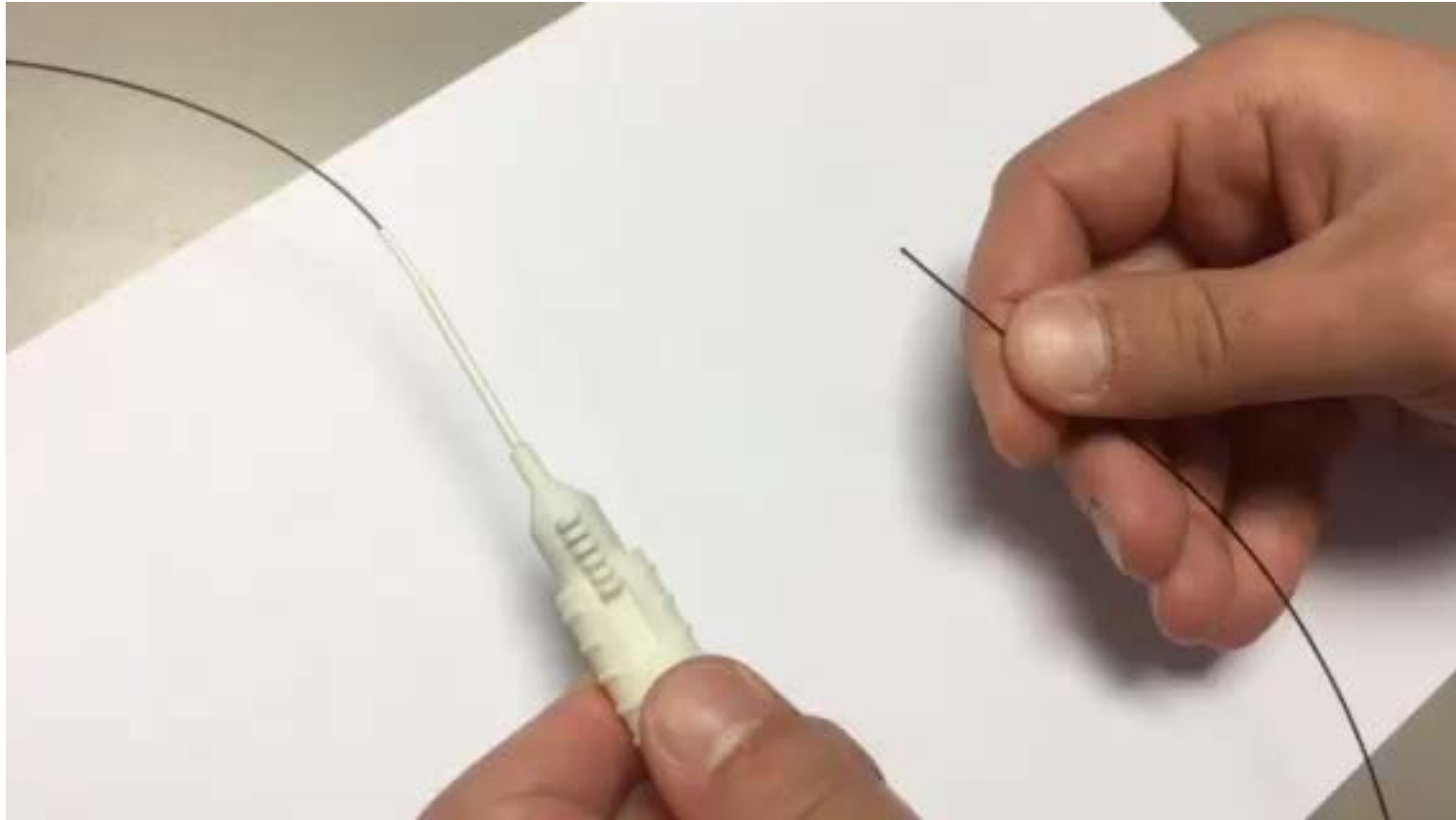
Holmium and Thulium: Lisa Laser



Monopolar/bipolar??



New prototype???



Problem # 2: Bladder Recurrence??

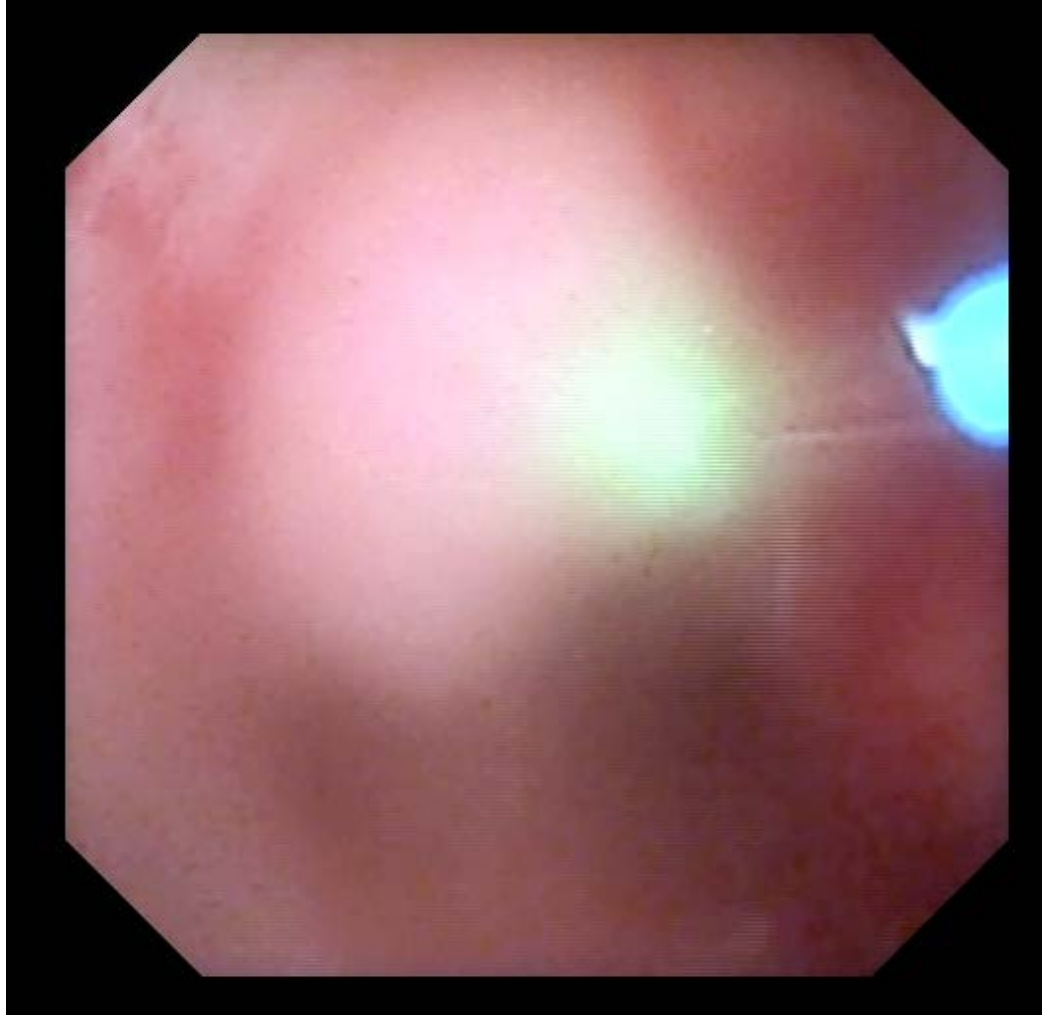


Higher recurrence in the bladder after RIRS???

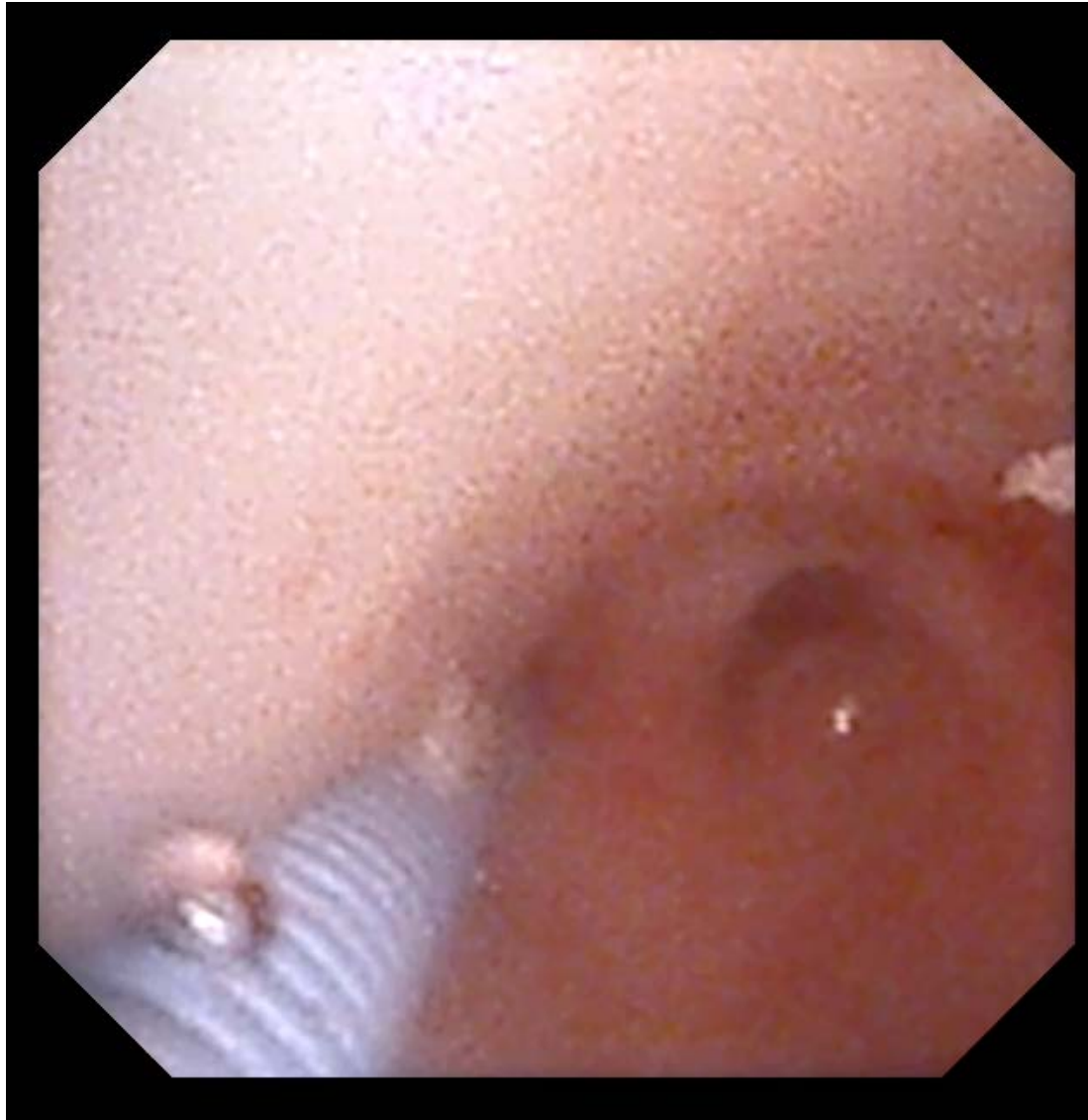


1. Systematic review on 7 studies
2. 765 patients who underwent diagnostic URS prior to RNFU
3. IVR rate ranged from 39.2% to 60.7% and from 16.7% to 46% with and without diagnostic URS respectively (HR 1.56, 95% CI 1.33-1.88; $P < 0.001$)

RIRS: UTUC/Circulating cells??



RIRS: UTUC/extraction



Problem # 3: Adjuvant QT??



7.1.1.5 *Adjuvant topical agents*

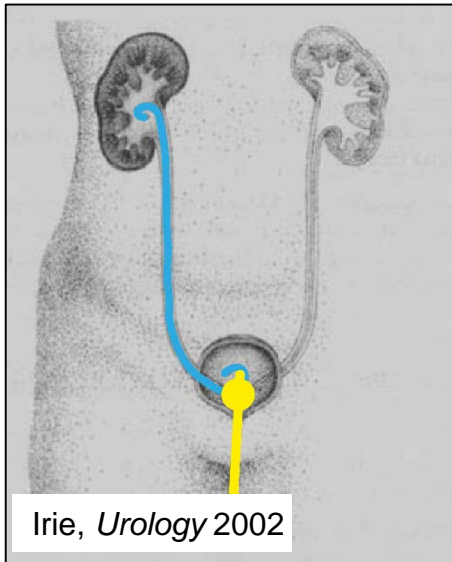
The antegrade instillation of bacillus Calmette-Guérin (BCG) vaccine or mitomycin C in the upper urinary tract by percutaneous nephrostomy via a three-valve system open at 20 cm (after complete tumour eradication) is feasible after kidney-sparing management or for treatment of CIS [139] (LE: 3). Retrograde instillation through a ureteric catheter is also used. The reflux obtained from a double-J stent has been used, but is not advisable since it often does not reach the renal pelvis [140].

RIRS: UTUC/Adjuvant QT

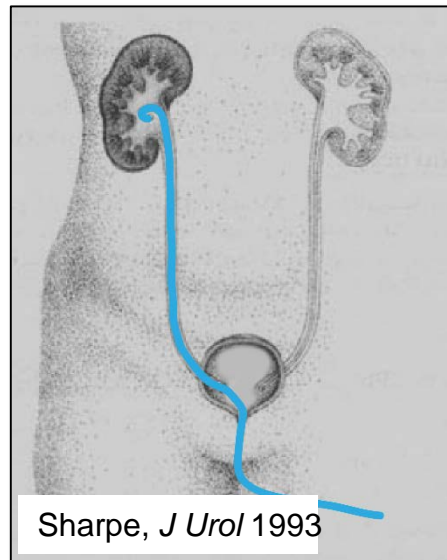


Retrograde

Double-J stent

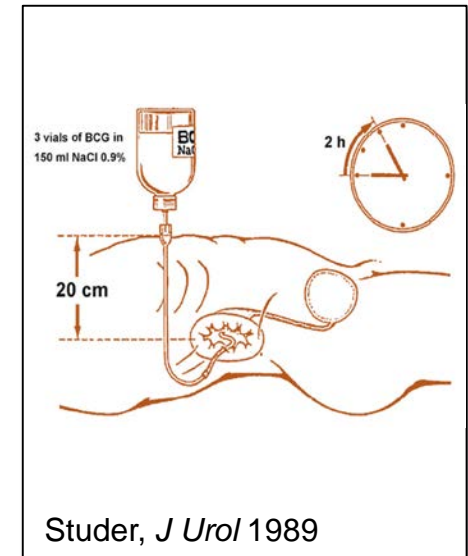


Single-J stent



Antegrade

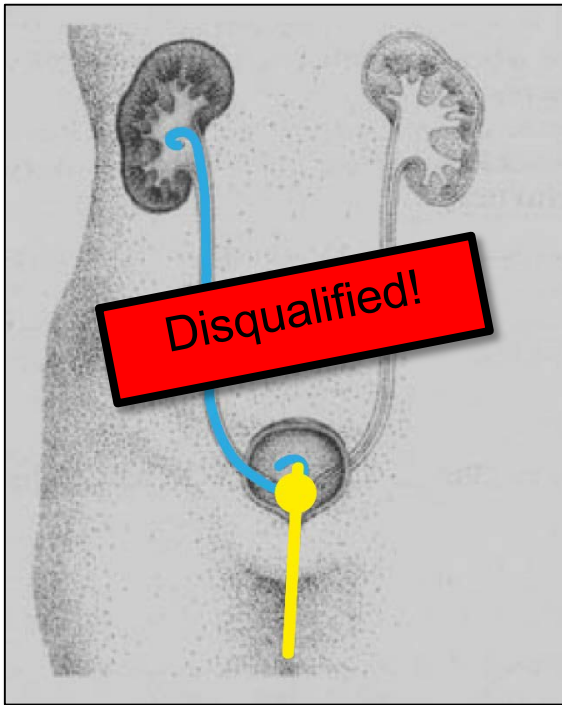
percutaneous



Retrograde with double-J stent



Treatment efficacy



Success rate of distribution

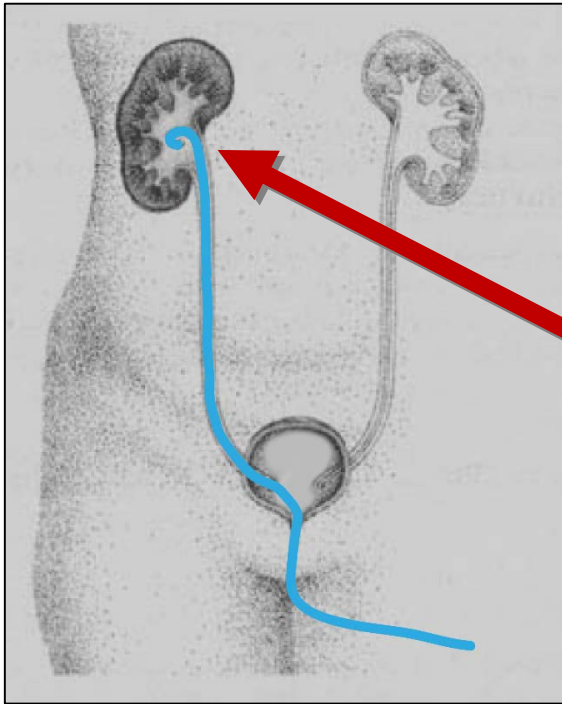
100 consecutive patients

- 44% no reflux
- Only 24% complete visualisation

Retrograde with single-J stent



Treatment efficacy + Safety



1. No control of outflow
2. May prevent contact to the urothelium
3. Adverse tube properties (Hagen-Poiseuille)

→ Unknown intrapylvic pressure

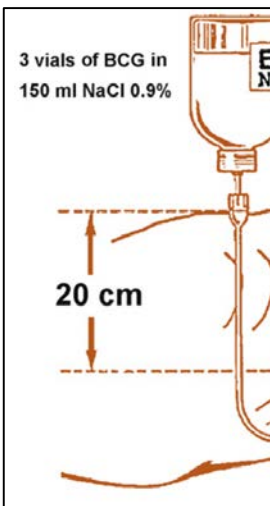
Pressure too high
→ **Dangerous**

Pressure too low
→ **Ineffective**

Antegrade percutaneous



Safety

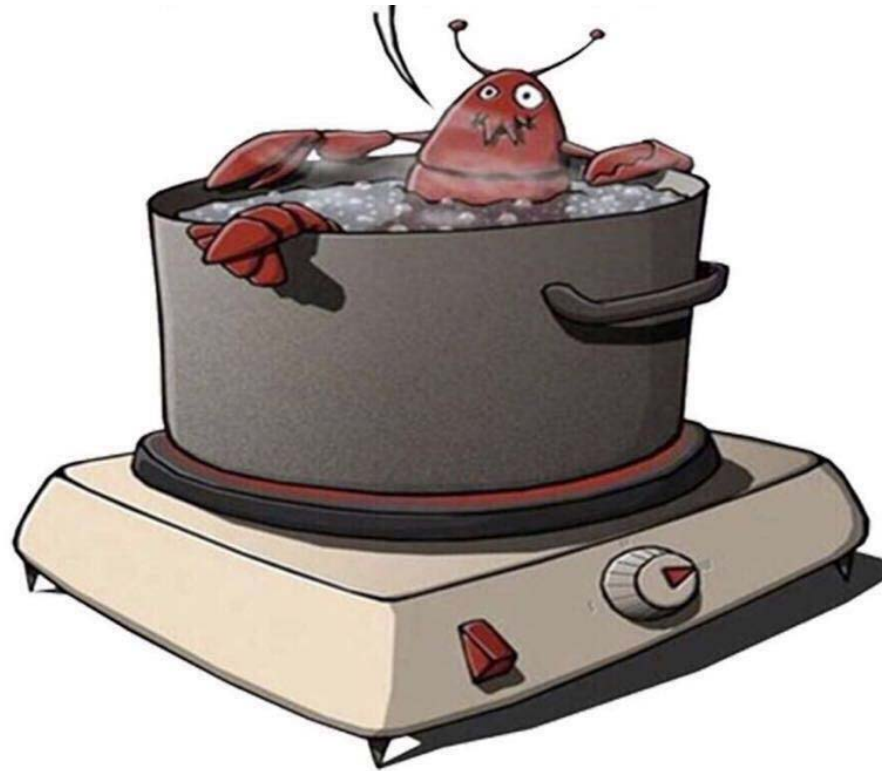


| Adverse events | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 |
|------------------------------|---------|---------|---------|---------|---------|
| Fever | 5 (9%) | | | | |
| Lower urinary tract symptoms | | 5 (9%) | | | |
| Pericarditis | | 1 (2%) | | | |
| Hematuria | | | 1 (2%) | | |
| Infection | | | 2 (4%) | | |
| Septicaemia | | | | 1 (2%) | 1 (2%) |

Conclusion



Just the women are missing!!!



Misjudgment of an optimist!!!!

