Interventions in the GU System

Bret Anderson, M.D.
Assistant Professor, IR/DR Residency Program Director
Vascular & Interventional Radiology
Medical University of South Carolina
Charleston, SC
Anatomy

- Kidney
- Ureter
- Bladder
Patient Preparation

- Coagulation profile
- Informed consent
- Antibiotics
- a “Plan”
Renal Intervention

- Antegrade Pyelography
- Percutaneous Nephrostomy
- Percutaneous Nephro-ureterostomy
- Percutaneous Lithotripsy/Nephrolithotomy
- Percutaneous stent extraction
- Pyeloplasty
- Whittaker Test
Ureteric Intervention

- Stent Placement
- Balloon Dilation of Strictures
- Endopyelotomy
Bladder Intervention

- Suprapubic Cystostomy
- Midline
- Ultrasound
- Distended bladder
- Avoid epigastrics
Nephrostomy
NephroUreterostomy
Ureteral Stents
Introducer sheaths
Hydronephrosis
A Needle inserted into kidney
B Guidewire passed through needle
C Needle removed with guidewire in the kidney
D Catheter placed over guidewire
E Catheter in position
“Avascular” plane of Brodel
Tx Kidney
“Neobladder” / Ileal conduit
Stent retrieval
Complication Management
Whittaker Test

- Flow rate 10ml / min
- Pressure Differential (cm H2O)
  - <13 normal
  - 14-22 mild or equivocal
  - 23-35 moderate
  - >35 severe
Renal Cell Carcinoma (RCC)
Cryoablation
Cryoablation probe
Bonus question
Polyureteritis Cystica