

CIRA Case of the Week

June 2016

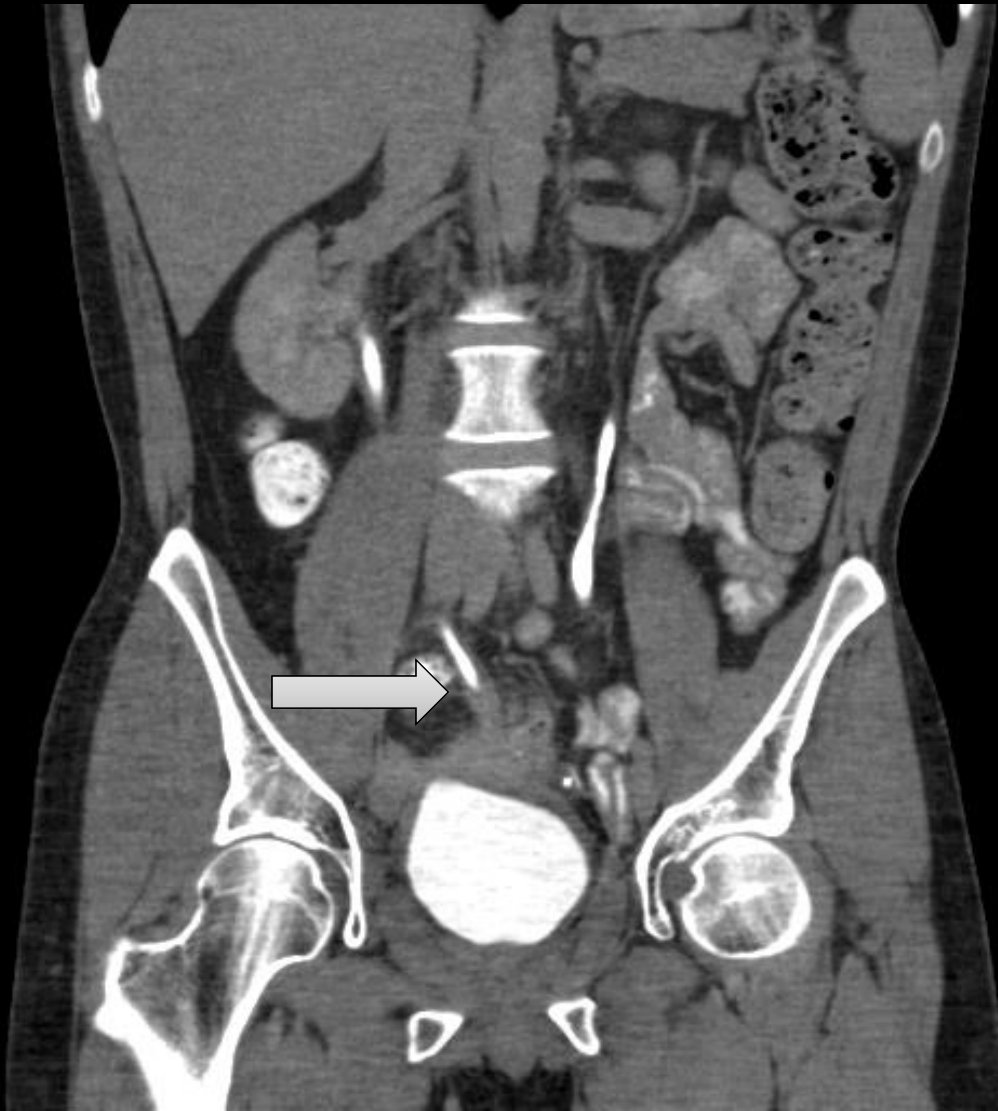
Case Courtesy of Dr. Joel Woodley-Cook

University of Toronto

Clinical History

- 40 year old male
- Locally advanced rectal cancer 2012
 - Hartmann's procedure, en bloc ileo-cecal resection, right ureteric implantation, chemo/radiation
- Benign right-sided ureteric anastomotic stricture
 - Hobbs attempt: Unable to pass
 - Right-sided nephrostomy
- Bladder surgery would require an ileal conduit
 - Patient declined this operation
- Serum creatinine and CBC normal

CT urogram



CT Findings

- Distal right ureteric stricture with right-sided nephrostomy tube
- Normal left ureter

Unsuccessful crossing attempts

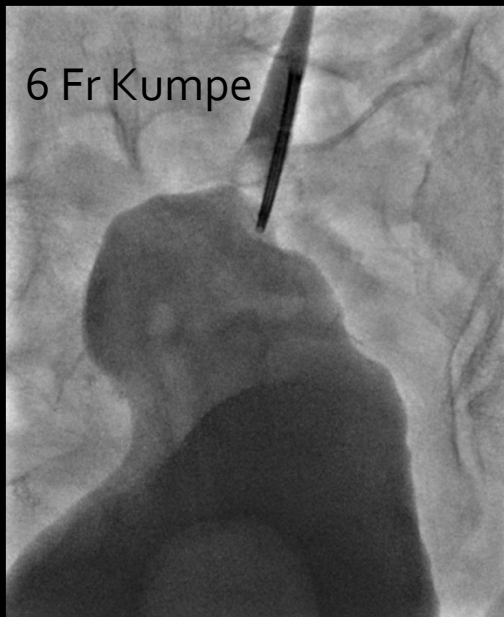
- Two separate attempts to cross the distal right ureteric stenosis with multiple guidewires (front and back ends) and various catheters
- All unsuccessful

Procedure

- The 10 Fr sheath and 5 Fr catheter/stylet from the Rösch-Uchida Transjugular Liver Access Set (Cook Medical) were used to cross the stricture into the urinary bladder
- The urinary bladder was distended with 50% Visipaque 270 (mixed 1:1 with sterile saline) (total of 400 mL)
 - This was not only to visualize the urinary bladder, but to create adequate distension in order to reduce recannulation distance

Procedure

- Under fluoroscopy the ureteric stricture was crossed and the urinary bladder entered with the 5 Fr catheter/stylet
- Over a stiff guidewire, the right ureteric stenosis was dilated with a 5 mm x 4 cm balloon
- 14 Fr nephroureterostomy catheter inserted for internal drainage

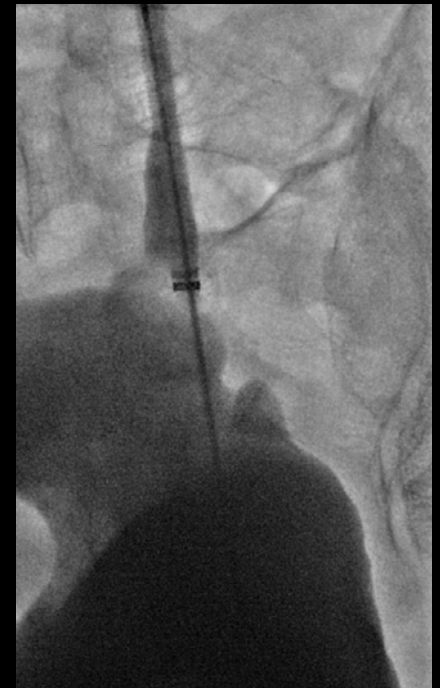
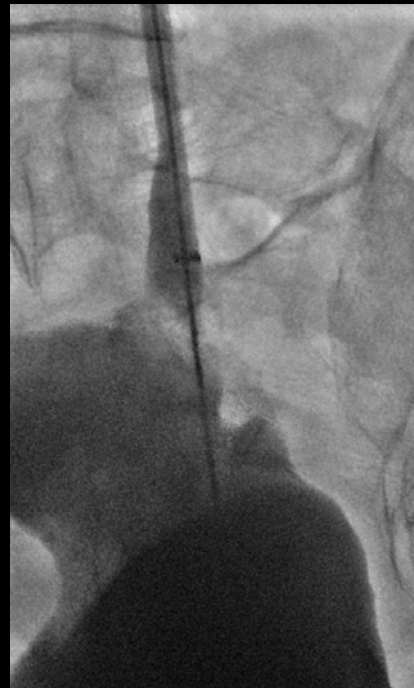
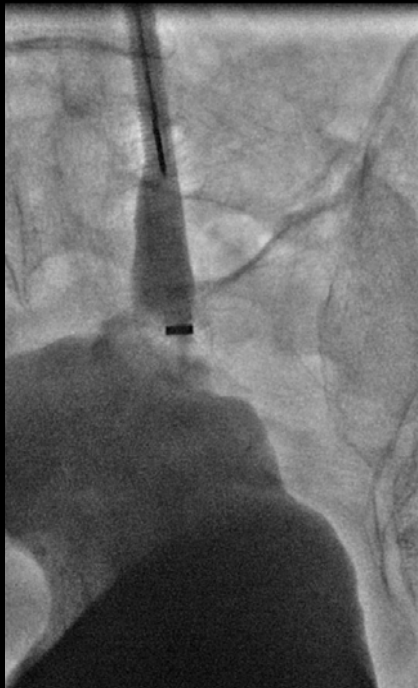


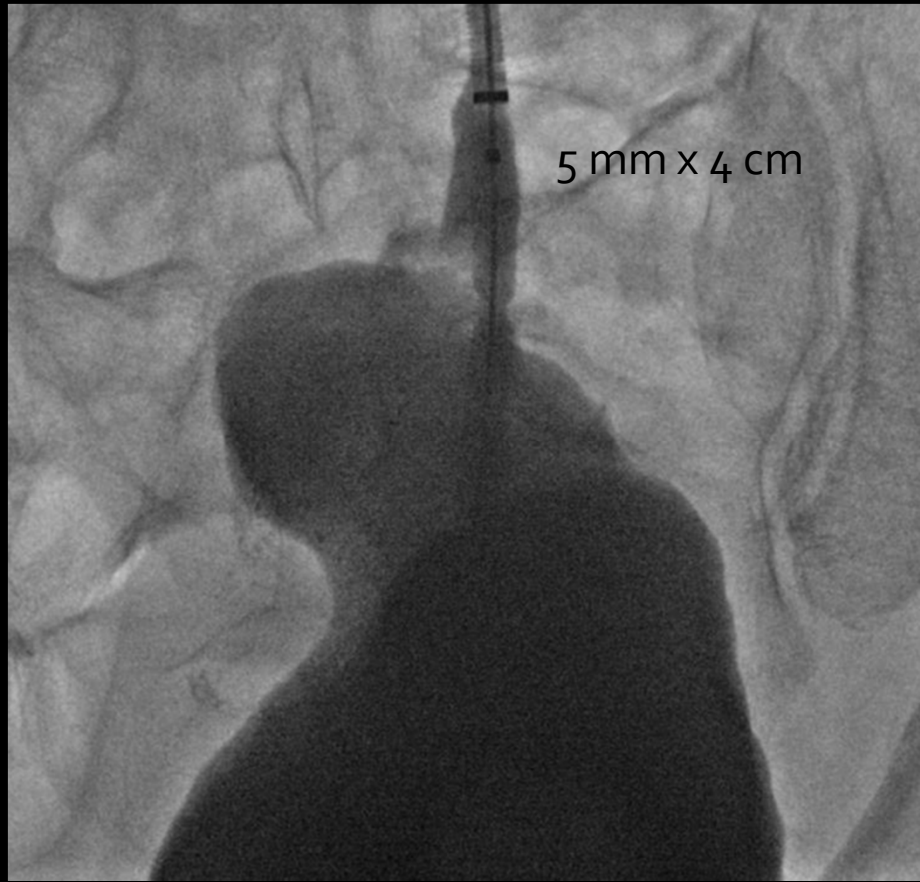
6 Fr Kumpe



10 Fr Rösch-
Uchida sheath

10 Fr Rösch-Uchida sheath with 5 Fr catheter/stylet to enter the urinary bladder





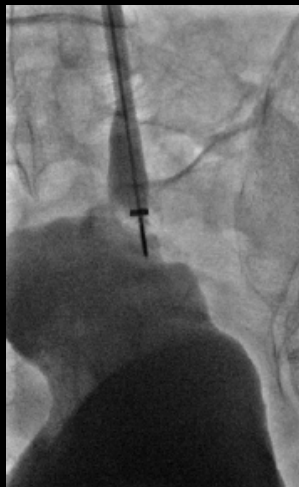
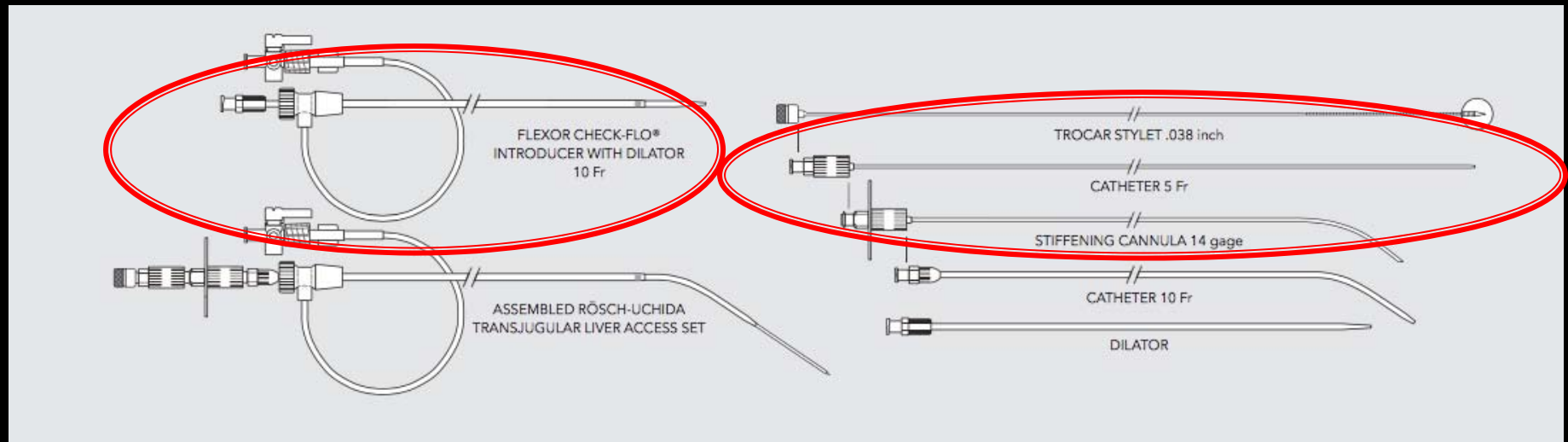
5 mm x 4 cm





14 Fr
nephroureterostomy

Rösch-Uchida Transjugular Liver Access Set



- Most commonly used for TIPS
- Also described for central and peripheral venous recanalization

Source: <https://www.cookmedical.com/data/resources/productReferences/IR-BM-RUPSP-EN-201210.pdf>

6 months later:

Free flowing contrast through the right ureter into the urinary bladder



(low-profiled with a 4 Fr Kumpe catheter for final check in 4 weeks)

Discussion: Ureteric Strictures

- Benign vs malignant
- Treat hydronephrosis to reduce infection, reduce oxidative stress on the kidney, and renal failure
- Long-term success using a cautery wire and cutting balloon across ureteric stenoses has been described

Take-Home Points

- Ureteric strictures may pose a challenge when attempting to insert a nephroureterostomy catheter
- Using a Rösch-Uchida needle is not void of risks
 - Operators must be familiar with the needle and aware of potential complications
- Other options may include using a 21G 25 cm long Chiba needle within a 4/5 Fr catheter