Bladder Drainage

Medical Student case-based learning
Case Presentation

• **Chief Complaint:** Suprapubic pain

• **History of Present Illness:**
  – A 72 yo man with a h/o BPH presents to the ER with worsening suprapubic pain and inability to urinate X 6 hours. He was recently taking several antihistamines for seasonal allergies.
Case Presentation

• **Past Medical History:** Hypertension, hyperlipidemia

• **Past Surgical History:** Mechanical Aortic Valve replacement (2016)

• **Medications:** Lipitor, Plavix

• **Social History:** Retired, life-long nonsmoker

• What would you do next?
Case Presentation

• **Physical Exam:**
  - Afebrile HR 110 BP 150/67
    - Appears in distress, writhing in pain
    - No CVAT; palpable bladder to the level of the umbilicus
    - Uncircumcised phallus
    - DRE: enlarged prostate without nodules

• **What is your next step?**
Case Presentation

• In the ER, a basic metabolic panel is ordered & a 16 Fr standard Foley catheter is placed; the balloon is inflated

• The patient reports even worse pain at this point; frank blood drains via the catheter with no urine output
Case Presentation

• What is your next step?
  – Catheter balloon is likely inflated in the prostatic or bulbous urethra
  – Can irrigate the Foley to evaluate if catheter is in the right position
  – If the catheter does not irrigate well, deflate the balloon and see if the catheter can be advanced into the bladder OR remove the catheter altogether
  – Use bedside ultrasound if available
Case Presentation

• Assuming the existing catheter cannot be advanced into the bladder, what type of catheter and size would you try next?
  – Can use viscous Lidocaine for local anesthesia
  – Best to try with a coudé catheter, given the patient’s history of BPH; 18 Fr is a good starting size to allow for good hand irrigation, as the patient now has hematuria
Case Presentation

• Coudé catheter placement is similar to standard catheter placement, except that the directionality of the catheter, with the curved tip pointing upward, must be maintained during catheter advancement.
• The 18 Fr coude’ catheter is placed by you. What measures can you take to ensure the catheter tip is in the bladder prior to inflating the balloon?
  – Urine return
  – Hub the catheter
  – Irrigate the catheter
Case Presentation

• Following your catheter placement, 1L of pale pink urine is drained from the bladder via the Foley.

• What would be an indication to initiate continuous bladder irrigation?
  – Gross hematuria with poor catheter drainage as a result
Case Presentation

• What instructions would you give the ER/patient?
  – Monitor for post-obstructive diuresis
  – Encourage the patient to hydrate
  – Periodic catheter clamping is not recommended
  – Start tamsulosin 0.4mg daily after discussion of side effects including retrograde ejaculation
  – Call with worsening hematuria/ poor catheter drainage
  – Hold antihistamines as they can cause urinary retention as a side effect
  – Return to the office in 7-14 days for a voiding trial