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, Plavi
• **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.
Case Presentation

• 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