Acute Renal Failure Cases
Case 1- HPI

- 71 yo mw/ fever and dysuria for 2 days
- Decreased UOP but increased frequency
- Yesterday vomited 3-4 times and developed left flank pain
- Naproxen partially relieved flank pain
- This morning he felt no better and developed dizziness upon standing so came to ED
PMH

- HTN well controlled on lisinopril 20mg daily
- Last BMP 2 months ago with Creatinine 1.0 mg/dL
- NKDA
- No other relevant past, family, social hx
Physical Exam

- T 39   BP 80/50   P100
- No JVD
- Lungs CTA
- CV NRRR w/o M/G
- Abdomen- mild diffuse tenderness but left flank tender to percussion
- Prostate enlarged w/o nodules and nontender
Lab Data

- Na -140
- K- 6.2
- Cl -102
- HCO3- 16
- BUN – 60
- Creat - 2.4
- ABG- pH 7.32/pO2 90/ pCO2 32 (room air)

- U/A- SG 1.030, 1+ prot, 30-50 WBCs
- Urine Na- 14 mEq/L
- Urine Cr- 280 mg/dL
Questions for Consideration

- List all of his problems?
- What is the acid-base disturbance?
Lab Data

- Na -140
- K- 6.2
- Cl -102
- HCO3- 16
- BUN – 60
- Creat - 2.4
- ABG- pH 7.32/pO2 90/ pCO2 32 (room air)

- U/A- SG 1.030, 1+ prot, 30-50 WBCs
- Urine Na- 14 mEq/L
- Urine Cr- 280 mg/dL
Questions

• How do you account for the electrolyte abnormalities?
• How do you put it all together?
• What other tests would you order?
How would you treat him?
Case 2

• Same presentation as case 1 except instead of dysuria, fever, and flank pain, he has a productive cough, fever, and left sided pleuritic chest pain and did not feel dizzy

• Vitals the same but exam reveals LLL dullness, decreased BS and crackles instead of abdominal tenderness and flank pain
Lab Data

- Na -140
- K - 5.4
- Cl -100
- HCO3- 19
- BUN- 40
- Creat- 3.8

- U/A- SG 1.010, prot –tr,
  WBC 1-2, RBC 1-2
- Urine Na -40 mEq/hr
- Urine Cr – 45 mg/24 hr
Questions for Consideration

• List all of his problems?
• What is the acid-base disturbance?
Lab Data

- Na -140
- K- 5.4
- Cl -100
- HCO₃- 19
- BUN- 40
- Creat- 3.8

- U/A- SG 1.010, prot –tr,
  WBC 1-2, RBC 1-2
- Urine Na -40 mEq/hr
- Urine Cr – 45 mg/24 hr
• How do you account for the electrolyte abnormalities?
• What other tests would you order?
# Acute Tubular Necrosis

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Perazella *et al.*  *CJASN* November 2008 vol. 3 no. 6 1615-1619
Questions

• How do you put it all together?
• How would you treat him?
Case 3 HPI

• 63 yo woman treated for gout 3 weeks ago with indomethacin here for follow up.
• Gout resolved but she requests new Rx for indomethacin b/c it improved her OA symptoms.
PMH

• HTN and diastolic dysfunction treated with lisinopril and atenolol
• OA- previously treated with acetominphen (but found indomethacin works better)
• Baseline serum creatinine 1.5 mg/dL
• NKDA
• Remaining past, family, social history not relevant
Physical Exam

• T 37    BP 130/72    P 65    R14
• Looks well w/ DIP and PIP enlargement in hands, no erythema or tenderness
• No JVD, lungs CTA, cor-NRRR w/o M/G

• You decide to give her indomethacin and order some labs
Lab data

- Na - 141
- K - 5.0
- Cl - 100
- HCO3 - 20
- BUN 32
- Cr - 2.5
- Glc - 90
Questions for Consideration

• What do you think is going on?
Questions for Consideration

• What other tests would you like (if any)?
Case 4- HPI

• 80 yo m w/ 3 days malaise, anorexia and confusion

• He’s usually healthy and was recovering from a cold, drinking plenty of fluids but for several days now he’s been getting worse

• No fever or cough, rhinorrhea is better, no sore throat, SOB, CP, N/V/D, no dysuria but has had several episodes of urinary incontinence, which is new for him
PMH

• OA- controlled with acetaminophen or ibuprofen prn
• Lives independently and able to perform all ADLs
• NKDA
Physical Exam

• Alert and cooperative, not acutely ill appearing
• T 37    BP 160/80    P 88    R16
• Mucosa moist
• No lymphadenopathy
• Lungs CTA/P
• Cor NRRR w/o M/G
• Abd- soft, nontender, no HSM
• Prostate mildly enlarged w/o nodule or tenderness
• Ext-no edema
Lab data

- Na- 138
- K 4.8
- Cl- 100
- HCO3- 20
- BUN- 90
- Cr- 7.2
Questions for Consideration

• List all of his problems?
• What is the acid-base disturbance?
Questions for Consideration

• What do you think is going on?
• What would you do next?
Case 5

- 48 yo women presents to her PCP and is found to be hypertensive.
- ROS was positive for mild nasal stuffiness.
- Medications: none
- Physical exam is unremarkable except for a BP of 150/90 (previous BP was 120/70).
• What do you want to do next?
Thank you for your attention!