

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
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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

Score	Description
1	RTE cells 0 and granular casts 0
2	RTE cells 0 and granular casts 1 to 5 or RTE cells 1 to 5 and granular casts 0
3	RTE cells 1 to 5 and granular casts 1 to 5 or RTE cells 0 and granular casts 6 to 10 or RTE cells 6 to 20 and granular casts 0

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 acetaminophen (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 woman 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!