



# 3/9/26 Mainstream Monday with @CPSolvers



“One life, so many dreams” Case Presenter: Ravi (@rav7ks) Case Discussants: Maddy (@MadellenaC) & OG Zakariyya (@pouroverguy)  
<https://clinicalproblemsolving.com/present-a-case/>

Scribing (Ram & Glen)  
CC: 59 Y M p/w 3 days of weakness, RUQ pain, s/p surgery  
HPI:  
Patient presented 3 days post-op s/p VP shunt placement, feeling cold, clammy and sweaty. Had an episode of dizziness associated with fall prior to presentation. Associated with elevated HR, and confusion

PMH:  
A-fib,  
NPH s/p VP shunt placement 3 days ago  
HTN, BPH, OSA, HLD

Sx: VP shunt placed 3 days ago

Meds:  
HCTZ  
Atorvastatin  
Diltiazem  
Oxycodone  
Eliquis

Vitals: T: 101.6 HR: 132 BP: 113/80 RR:18 Sat: 98% on RA  
Exam: Gen: ill appearing, disoriented  
HEENT: wnl CV: wnl Pulm: wnl Neuro: wnl  
Abd: RUQ tenderness, non distended, no guarding or rebound, bowel sounds nl  
Extremities/skin: No edema, No lesions

### Notable Labs & Imaging:

Hematology: WBC: 16.39, neutrophil predominant Hgb: 11.2 Plt: nl  
Chemistry:  
Na: 136 K: 3.6 Cl: 100 Cr: 0.88 BUN: 20 Glucose: 113 Ca: 8.7 Mg: 2.1  
AST: 75 ALT: 46 Alk-P:2.2 Bili: 0.8 Albumin: 3.2 Total Protein:6 CRP: 351  
Respiratory Viral Panel: negative  
MRSA: neg Blood culture: neg

UA: neg  
CSF: Cell count:32; culture: *Klebsiella aerogenes*

### Imaging:

EKG: Afib with RVR  
CXR: wnl  
CT: nl

**Dx: KLEBSIELLA MENINGITIS DUE TO VP SHUNT PLACEMENT**

**Problem Representation:** 59 Y/M with NPH s/p VP shunt, with 3 days of weakness, cold, sweating, RUQ pain and confusion who was febrile, tachycardic and disoriented on exam, with leukocytosis, transaminitis, with elevated cell count in CSF with culture growth *Klebsiella*.

### Teaching Points (Daniel)

Cold, clammy, sweat - stress response? Shock or possible bacteremia?  
RUQ pain s/p procedure

- related to surgery
  - Infections
  - Malpositioning of device
  - Bleeding
- not related to surgery
  - Anatomical approach

### Fever and tachycardia

- Acute inflammation - suspicious of infection
- Localize infection: Abdominal or CNS

Disoriented - sign of CNS dysfunction - empiric treatment for meningitis due to possibility of serious complications

- Dexamethasone
- Empiric antibiotics: Ceftriaxone, Vanc, Ampicillin, Acyclovir, and possibly cover hospital acquired gram negative
- Order blood cultures, CT, CSF culture

### Elevated ALT and AST

- Possibly due to sepsis or abdominal complication
- Possible repeat labs to check for cholestatic markers

Afib with RVR like sinus tachycardia - investigate for underlying cause  
*Klebsiella* meningitis due to VP shunt placement

- meningitis usually within 2 month after shunt placement
- can present atypically
  - Meningeal irritation only seen in 20 - 30% of patients
    - IDSA Ventriculitis and meningitis Guidelines, 2017
    - <https://pmc.ncbi.nlm.nih.gov/articles/PMC5848239/>