



# 9/23/20 Morning Report with @CPSolvers



Case Presenter: Jabra Zarka (@JabraZarkaMD) Case Discussants: Megan McGrath and Ramya Ram

**CC:** Confusion

**HPI:** 57M fever, altered mental status, waxing and waning, and confusion. Wife gave the rest of the history. Fatigue, loss of consciousness. He presented to ER on evening. Mild headache, dark color urine and diarrhea. Rest of ROS: negative

Infected with malaria twice before. He had partial immunity due to previous infection.

**PMH:**

Negative. Have not seen physician in 10 years  
No surgery

**Meds:**

Acetaminophen for fever. Fever and confusion come back when not medicated.

**Fam Hx:**

Parents HTN and hyperlipidemia.

**Soc Hx:**

Car mechanic in Ghana. He drank from unclean tap water. He had tick bites in one trip. He has not traveled in a month

**Health-Related Behaviors:**

20 pack year smoker  
Healthy diet. No exercise. No Etoh, no drugs. Monogamous

**Allergies:** None

**Vitals:** T: 38.5 (101) HR:109 BP: 110/74 RR: 22 SpO<sub>2</sub>: 95%

**Exam:**

**Gen:** Jaundice, normal built

**HEENT:** Dry mucous membrane, no lymphadenopathy, bilateral conjunctivitis, no neck stiffness

**CV:** Tachycardic, Normal S1 S2, RRR, no murmurs

**Pulm:** CTAB

**Abd:** Soft, non distended, mild tenderness in R upper quadrant, mild hepatosplenomegaly, no ascites

**Neuro:** Awake and alert. Not oriented in person, time and place, Sensorium normal

**Extremities/Skin:** Normal. No petechiae

**Notable Labs & Imaging:**

**Hematology:**

WBC: 7 (normal dif) Hgb: 10.4 Hct: 32 MCV: 88 Plt: 65000

**Chemistry:**

Na: 140 K:5 Cl: 98 CO2: 22 BUN: 56 Cr:1.3 glucose: 134 Ca: 9.2  
AST: 75 ALT: 77 Alk-P: 98 T. Bili: 3.9 Ind 3.5 LDH: 530 Fibr: 537  
CRP:228 PT and PTT: normal INR: 1.32  
UA: RBC

**Imaging:**

EKG: Sinus tachycardia

CXR: Normal

Brain MRI: Diffuse swelling

LP: normal, low glucose

Blood smear: 1st negative, 2nd malaria

Treated with artesunate and chloroquine. Patient returned to baseline and was discharged.

**Problem Representation:** 57 M with confusion, headache and fever. He had jaundice, bilateral conjunctivitis and mild hepatosplenomegaly. Final dx: Malaria

**Teaching Points (Maria):**

- Neuro vs non-neuro. Occam vs Hickam. Chicken and egg - what symptom came first, how do symptoms evolve.
- **MIST:** metabolic, infection, seizures, toxins.
  - **Infections:** meningitis, encephalitis, abscess. Associated symptoms are key! Suspect w/ fever, headache, nuchal rigidity, photophobia. Tempo: persistently worse.
- **Dark urine:** concentration, pigment (bilirubin, myoglobin, hemoglobin), exogenous pigments
- **Incubation periods.** Think about time frame from exposure to start of symptoms.
  - Tick borne illness, arthropod borne viruses, water borne infections: short incubation period
  - Malaria: long incubation period.
- **HIV:** must not miss. Low pretest probability.
- Think treatment (ABCs, ATB) and dx (confirm infection: LP, images. Complications - coagulopathy thrombocytopenia, liver injury)
- **Jaundice:**
  - **Hemolysis** might be infectious (ie:malaria). High bilirubin, high LDH, high K. Easy next step → Smear: schistocytes (ie: TTP). Other tests: Coombs, haptoglobin.
- Bilateral conjunctivitis w/ jaundice, AMS + exposure: **leptospirosis**. Incubation period: 10d-1m.
- Check bias while checking labs by checking what doesn't fit.
- **Malaria:** Long incubation periods can occur if you have partial immunity. You need 3 negative blood smears w/12 hour difference to rule it out. .