

# 12/09/24 Rafael Medina Subspecialty VMR with @CPSolvers

"One life, so many dreams" Case Presenter: Dr. Colantonio, Dr. Shepherd Case Discussants: Dr. Shannon, Dr. Colantonio (@), Dr. Shepherd (@)

**CC:** 92F p/w unwitnessed fall & confusion

## HPI:

Initially presented with increased confusion & found down after fall. No bowel/bladder incontinence. Family had witnessed patient 2 hours prior to fall. Noted *progressive generalized weakness 2-3 days prior*. Initial history provided by family member. No previous falls. Minimal hair on legs. No urinary incontinence.

Functional at baseline. Able to walk well, go on errands with daughter. Mobile without large, assistive equipment. Lives w/ daughter & son-in-law & 2 dogs (close contact w/ extremities)!

**ROS:** No coughs, fevers, chills, no sick contacts, no chest pain, nausea, vomiting, melena, bloody bowel movements.

## PMH:

- Breast Cancer in remission s/p R-partial mastectomy (46 years ago).  
- HTN  
- Chronic Low Back Pain

## Meds: (all chronic)

Lisinopril 20  
Lopressor 50 BID  
Lasix 20 - Hx of LE edema  
Multivitamin

## Fam Hx:

None (cardiac, DM, seizure, autoimmune)

## Soc Hx:

Remote hx of tobacco use (quit >30 year ago, 0.5ppd x 20 yrs). No alcohol use. No supplements or illicit drugs.

## Allergies:

**Vitals:** T: 98.9F BP: 87/45 RR: 18 HR: 106 Sat: 100% on RA

**Exam:** Gen: non-diaphoretic, no acute distress, pleasantly confused

**HEENT:** normocephalic, no trauma noted to head

**CV:** overall euvolemic, trace pitting edema. **Warm extremities. No cyanosis**

**Pulm:** regular respiratory rate, no increased work of breathing, diminished lung sounds in bases

**Abd:** soft, no masses. Normal bowel sounds.

**Neuro:** No focal deficit. Alert and oriented to name but not place.

**MSK:** Good strength in Upper & Lower Extremities.

**Skin:** Lesions on bilateral lower extremities. Mild erythema.

## Notable Labs & Imaging:

### OSH Hematology:

WBC: 9.0 Hgb: 8.4 (chronic) Plt: 277 Hct: 26.1 MCV: 82.0  
Neutrophil 83%, Lymphocyte 6%

### OSH Chemistry

Na: 138 K: 4.4 Cr: 0.97 BUN: 24 Ca: 9.1 Albumin: 3.5 Ph: 3.0 Mg: 1.8  
Glu: 130 Cl: 103 HCO<sub>3</sub>: 21. AG: 14. Lactate: 3.6 -> **5.1**. Procal: 0.99  
ALT 66, AST 108. CK 133. HS Trop 11.9. UA: 30 protein, trace ketones. UDS negative.  
RVP neg for influenza, RSV, COVID. Blood Cx (x2): Gram Pos rods (Staph epi)

### OSH Imaging:

EKG: Sinus tachycardia. No ST elevation or depression.  
CXR: Normal heart size. Possible hazy opacity through R-lung.  
CT Brain: No evidence of acute infarct. No mass effect. Generalized volume loss.

### OSH Hospital Course:

Fluid resuscitated w/ 2L & Albumin 500g. Started on Norepi & Vanc/Ceftriaxone/Doxycycline. Treating for septic shock & possible cellulitis from LLE.

### Current Hospital Labs:

**VBG:** pH 7.29, pCO<sub>2</sub> 46, Bicarb 20, Lactate 3.6. CK 224. Procal: 2.54. SaO<sub>2</sub> 92%  
**Trop:** 4172.

**Hgb** 6.3 s/p 1U pRBC. MRSA swab neg. Flu/RSV neg. Blood Cx (4/4): **Gram neg rods**

**CT Chest:** Opacities in bilateral lungs. Bilateral pleural effusions.

**CTAP:** Sigmoid diverticulosis w/o diverticulitis. Hepatic steatosis.

**TTE:** Ejection fraction roughly normal. IVC 2cm. *Indeterminate diastolic dysfunction*. Switched to Ceftriaxone & Azithromycin. -> IV Unasyn

**Dx:** Blood Cx growing *Pasteurella multocida*. Treated with IV Unasyn.

## Problem Representation:

92F w/ PMH of chronic anemia and HTN p/w presumed septic shock in s/o suspected pneumonia and LLE cellulitis.

## Teaching Points(Khashayar):

### Unwitnessed fall

*syncope* workup is always warranted,  
**confusion is a multicolored condition** -> baseline confusion vs completely new confusion (baseline status especially important in the elderly -> Immediate change vs more chronic baseline  
**Assistant devices** -> patients can be wrongly labeled as confused without their aid  
**What to check?** -> Volume status, neuro exam (try to localize), bruising and assessing trauma(rule out ICH,Non contrast CT Head -> we're ruling out bleeds only), murmurs (AS) , has there been previous history of falls?

### Encephalopathy -> Vitamin E

Vascular, Infection, Toxin, Autoimmune, Metabolic, Iatrogenic, Neoplastic, Epileptic  
The hypertension history -> importance of getting a baseline will allow you to assess the importance of the condition

### Proteinuria

Hypertensive nephrosclerosis, diabetes, transient proteinuria due to shock

**Approach to Shock** -> *Hypovolemic*(trauma & hemorrhage, overdiuresis, decreased PO intake), *cardiogenic*(Beta blocker overdose), *distributive*(septic shock, being afebrile won't rule out especially in the elderly), *obstructive* (POCUS)

**Elevated Anion-Gap Acidosis** -> Lactate acidosis(specially pointing out to infection), starvation ketosis, uremia (presence of an anion in the blood)

**Shock can complicate the picture** -> Elevation of procalcitonin in shock is typical and won't help in narrowing down the differential, even LFT elevation may be normal reaction, trend the values and keep your eye out for anything too dangerous

**Albumin for resuscitation** -> not usually indicated, more used in cases of cirrhosis, hepatorenal syndrome and similar conditions

### Understanding Etiology of the Shock

**Understanding the broad antibiotic initiation** -> empiric treatment for conditions that may progress rapidly, understand what you're covering in each case and tease out the history capnocytophaga in a patient with a dog. Usually will cause sepsis in asplenic patients or immunosuppressed patients

**Uptrending trope elevation** -> the troponin pyramid -> ACS, AHF, Stroke, Brain Bleeds, Shock, Renal Failure, Cardiac Contusion

**Gram positive** -> Listeria, bacillus, clostridium -> vegetation eval, check for the labs being correct and look out for miscommunication errors

**Pasteurella multocida** -> legs as a point of entrance -> immunocompromised, elderly and the young