



# 06/17/24 Morning Report with @CPSolvers



“One life, so many dreams” Case Presenter: Aye Khine (@ayekhineMD) Case Discussants: Robert Weber (@RobWeberMDPhD)

**CC:** 61 yo male with shock on pressor support.

**HPI:**

Initially presented with back pain, nausea, dark stools, decreased PO and fatigue. He was found to have MSSA bacteremia with epidural abscess. NeuroQx wanted to do laminectomy, he was intubated and during the procedure presented melena and drop in Hb. Endoscopy showed an ulcer. Initially approached as hypovolemic shock. Required a NE drip. His infection improved with antibiotics and GI bleed was controlled with a clip. He came out of sedation, persisted confused and requiring pressors.

**PMH:**

DM 2 well controlled (HbA1c 6.8%)

**Meds:**

Tylenol occasionally.

**Fam Hx:**

**Soc Hx:** Smoker

**Health-Related Behaviors:**

**Allergies:**

**Vitals:** T: 35.7 HR:83 BP: 99/70 on NE and intubated RR:16

**Exam:**

**Gen:** Laying in bed, intubated, off sedation. Could open his eyes.

**Enlarged features.**

**HEENT:** Possible enlarged tongue.

**Pulm:** Intubated, attached to the ventilator

**Abd:** Soft, with mild distention. Family said it got bigger with time. No striae.

**Neuro:** Would open his eyes, and mild spontaneous movement of extremities.

**Extremities/skin:** Bilateral LE pitting edema.

**Notable Labs & Imaging:**

**Hematology:**

WBC: 13.6 Hgb: 8.7 Hct 25 Plt:176

**Chemistry:**

Na: 144 K: 3.3 Cl: 116 HCO3: 15 BUN: 10 Cr:0.86 glucose: Ca: Mag: Albumin: 2.5 GFR 99

Cortisol 8 am: 1.2 Post stim cortisol 8.8

TSH 6.04 (high) Free T4 0.67 (low limit) -> 12 days later TSH 10 Free T4 0.5 T3 2.36 (normal)

**Imaging:**

CT abdomen w/ contrast: adrenal glands normal.

MRI Brain wo contrast: No lesions, infarcts or hemorrhages in the pituitary.

Started hydrocortisone 80 mg. Wife mentioned use of artican, contained dexamethasone, furosemide

**Dx:** Adrenal insufficiency secondary to supplement use.

**Problem Representation:** 61yoM w/ MSSA epidural abscess status post laminectomy complicated by GI bleed and hypovolemic shock. Now on vasopressors. PE enlarged features and tongue, bl edema. Labs showed leukocytosis, anemia, hypokalemia, high TSH, normal T4, low albumin, low morning cortisol and normal imaging,

**Teaching Points (Anmolpreet):**

**I] Shock:** hypovolemic, distributive, septic, cardiogenic! Endocrine perspective:- adrenal insufficiency (Waterhouse Friderichsen syndrome), hypothyroidism (extreme)

To evaluate :- PMH : autoimmune, surgical history

**II] Smoking and DM :** indicates immunocompromised state

**III] Common symptoms of AI:** nausea, stomach pain but when accompanied with hypotension→ we think of AI

**IV] Adrenal insufficiency:** primary and secondary (pituitary)

**V] Etomidate→ 21-hydroxylase inhibition→ adrenal insufficiency VI] Acromegaly : overproduction of GH at the pituitary level.**

‘Shoes, rings don’t fit anymore’, frontal bossing, jaw protrusion, Increased spaces between teeth, soft tissue changes:- large tongue.

**VII] Cortisol blood draws should be done between 8AM and 9AM.**

Normal K levels in suspected AI cannot be primary because Potassium levels increase in primary AI.

**VIII] 8AM cortisol < 3 with normal albumin : Adrenal insufficiency 8AM cortisol 3-14 with normal albumin:- go for cosyntropin testing 8AM cortisol > 14 with normal albumin:- not adrenal insufficiency**

**IX] High-dose opioids, octreotide, glucagon can suppress pituitary.** Artican is a medicine used for arthritis from Mexico.

**Glucocorticoid-induced AI:-** Atrophy of pituitary (ACTH) recovers before atrophy of adrenal gland recovers (cortisol). Recovery occurs in 1 yr in 50% cases, can take 5 yrs in extreme cases for cortisol levels to recover.

**Pituitary (remember) :** TSH (free T4), ACTH (cortisol), ADH (Na)