5/23/22 Morning Report with @CPSolvers

***Case Presenter**: Ravi Singh (@rav7ks) **Case Discussants**: Drs. Alec (@ABRezMed) & Austin Rezigh (@RezidentMD)*

CC: 67 y/o F presenting from home due to a fall

HPI:

- She was getting up from bed. She was confused and oriented only to name while at baseline sheis AOx4. But able to get up.
- Her dietary intake had also been reduced for the past 3 days.
- Denied fever, nausea, vomiting or diarrhea

PMH:
HTN,
GERD,
Fibromyalgia,
PUD,
Cholecystectomy 20 y/o.

Meds:
Aspirin 81 mg,
Atorvastatin,
Loratadin,
Acetaminophen,
Pantoprazol, MgOxide,
Temazepam,
Metoprolol, Antacids,
Milk of Magnesium

Soc Hx:
None

Health-Related Behaviors:
None

Allergies:
NKDA

Vitals: **T**: **HR**: 90-110 **BP**: 82/69 **RR**: 16 **SpO_2**: 97% 2l NC
Exam:
Gen: Somnolent, Lethargic, AOx1-2
HEENT: Dry mucous membrane, pupils equal and reactive
CV: Normal S1 S2 rhythm irregular, no murmurs
Pulm: Normal
Abd: Soft, non-tender, normal bowel sounds
Neuro: AOx 1-2, very weak, diminished DTR (deep tendon reflex)
Extremities/Skin: dry skin, no edema

Notable Labs & Imaging:
Hematology:
WBC: 11 Hgb: 9 Plt: 200
Chemistry: Na:136 K: 4.5 Cl:106 CO2: 19 BUN:57 Cr:2.00 glucose:139 A-GAP: 11 Lactate 5.2
Urine: Dark brown, Heme +. NO RBCs
Imaging:
EKG: Afib HR 120
Head CT: Showed chronic involutional changes and no acute hemorrhage
Chest/ Abd and Pelvis: Diffuse colitis and bowel wall dilatation
US doppler lower extremities: neg for DVTs.
3l normal saline → BP 90/110 - 60-80. Lactate: 1.8 Cr: 0.8 AST: 42 ALT: 44 CPK: 20.000 Antibiotics started → Vancomycin and Zosyn
Echo: EF 55-60% with trace aortic regurgitation
BP: 60/46 MAP: 52 bolus of NS → ICU.
New Labs: Cortisol: normal Mg: 6.9
PMH: Frequent falls, Hypermagnesemia before and constipation. She was very dehydrated lead to AKI.

Dx: **Hypermagnesemia induced the Hypotension**

Problem Representation: 67 yF p/w fall, hypotension, Afib and diminished DTR while being under Magnesium-treatment.

Teaching Points (Seyma):

- **Fall:** Mechanical fall or syncope?, Medications (predisposing for bleeding), background, foreground → Context is everything, Trauma assessment (POCUS fast)
  - What is necessary to stand up: Brain, Spinal cord, Nerves, Muscles, Blood flow etc.
- **Syncope:** Reflex (vasovagal; prodromi typical), Orthostatic, Cardiac (lack of prodromi makes it more likely)
- **6S of LOC:** Syncope, Seizure (lateral tongue bite, enuresis, postictal amnesia sec-min), Sugar, Stroke , Sleep, Substance
- **Clues:** PMH of HTN → diuretics, vessel stiffness could predispose for syncope; Pantozol could lead to B12-def., possible diarrhea as a side-effect of laxatives could lead to orthostasis;; Antacids: Milk-Alkali (Confusion, Constipation, AKI)
  - Hypotension, Tachykardia, dry mucous membranes → Shock due to volume depletion; ß-Blockers could be the culprit for lower HR as actually presumed
  - Hypoxemia: Infection, Pulmonary (e.g. PAE leading to cardiogenic shock)
- **Diminished DTR** has a broad ddx: consider hypothyroidism(myxedema coma), adrenal insufficiency, toxins, diabetes, heavy metals, hypermagnesemia
  - Mg-toxicity: can present w/ diminished DTR, low BP, dry mouth ~Gabriel
- **Dark brown urine w/ heme**: think of rhabdo, rapid hemolysis
- **AFib: PIRATES**: Pulmonary, Ischemia/Infection, Rheumatic heart dz, Anemia, Toxins/Thyrotoxicosis, Endocarditis, Swelling (Hypovolemia, acute dec. HF, sick sinus)
- **DDx Colitis:** Ischemia (shock; ischemic colitis), Infection (e.g. Salmonella), Autoimmune (IBD)
- **Rhabdomyolysis:** Meds (Statins, Propofol), Trauma, Hypokalemic periodic paralysis (transient recurrent episodes), stimulants, electrolyte disorder, withdrawal
  - Statins can cause immune-mediated necrotizing myopathy
- **Rhabdo+Colitis:** Infection (Legionella, Leptospirosis, Salmonella, tick-borne: Malaria, Ehrlichiosis), theory: bowel ischemia
- **Hypermagnesemia**: dim. DTR, hypotension, CV (EKG changes, bradycardia, BP problem), N/V => Tx: Give Ca-gluconate + IV fluids

=> Frequent falls + Mg-based therapy (e.g. antacids) + laxatives leading to AKI and predisposing for hypermagnesemia