12/30/24 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter****: Dr. Meghan Nothem* ***Case Discussants****: Dr. Paul Bergl*

CC: 50Y/M presented to ED via EMS found unresponsive. Last known one to two hours prior.
HPI: Family noted had been on the restroom for one hour. Found on toilet seat and stiff. On EMS arrival, spo2 was 86%, he was not responsive.

Information gathered from family on MICU, ambulatory coughing mucus on bathroom, has been having coughing fits and not responding. Intermittent eye fluttering, grunting which led to call EMS

ROS: unable to obtained.

PMH: ESRD on HD, Anemia of chronic disease, DM type 2, Anxiety , HTN, HLD, peripheral neuropathy.

Meds: Acetaminophen, amlodipine, clonidine, furosemide, gabapentin, Hydralazine, galargine, loperamide, meclizine, omeprazole, rosuvastatin, Veltassa(K+ binder), Ferric citrate

Fam Hx: DM in father, maternal grandmother, grandfather, HTN in mom and dad. Father died of heart failure

Soc Hx:Previous smoker, few cigarettes 2 pack years quit20 years. No vaping, ETOH, no illicit drug use

Health-Related Behaviors:

Allergies: None

Vitals: T: 31.4c BP: 130/70 mmHg **RR:** 16**HR**: 60-70 **Sat: 82@RA.**
Exam: Gen: opening his eyes, no response to pain
HEENT: Normocephalic, MM dry, pupils equal, round, reactive to light
CV: RRR, no murmurs **Pulm:** B/L airentry normal
Abd: soft, non-tender
Neuro: GCS 9, withdraw to painful stimuli, intubated in the ED
MSK: fistula on RUE with palpable thrill

Notable Labs & Imaging:
Hematology:
WBC: 10.1, N:84%, L: 7%, Hgb: 11.4 Plt: 268 Hct:35 MCV:105
VMG: 7.34, po2: 48, pco2: 48, lactic acid: 1.3
Chemistry
Na: 133K: 4.4Cr: 9.15 BUN: 58Ca: 8.2,phos: 4.5, mg: 2.2 Glu: 175 Cl: 91HCO3: 20, AG: 22 Beta- hydroxybutyrate:1
AST: 22ALT: 14 ALP:73 Bili:0.3, dire: <0.2 Alb: 4.2 , Total Pro: 7.2, CK: 295, beta INR: 1.2
UA: dark brown, glucose: 150, bili: negativ, letones: 20, SG: 1.016, blood: >1, PH: 7.5, protein:L 300, urobili: normal, nitrite: negative, LE: 250, RBC>100, WBC: 26-50, Bacteria: Present
B12: 348, folate: 13.1. Serum acetaminophen: <5(wnl), salicylate: 1.5(wnl)
UDS: negative
ferritin: 1465, iron: 44, TIBC: 217, IPTH: 209, vit D: 20.2(nl)
Serum osmolarity: **347**, calculated serum osmolarity: **296,** Osmolar gap: 51.
Imaging:
CXR: bibasilar patchy opacities.
CT head non contrast: no acute intracranial findings.
CT angio Head and Neck: no large vessel occlusion, no significant stenosis.
KUB: non-obstructive bowel gas pattern.
Echo: LV normal in size, EF: 58%, LV mass to BSA: moderately increased, LA: mildly enlarged, RA mildly enlarged, moderate to severe TR, PASP: **61**
Volatile alcohols: Ethanol,Methanol: Negative, Acetone: 189, isopropanol: 24
Transferred to MICU, sedated with propofol, fentanyl, became agitated. Mental status improved after HD. He was awake, extubated, endorsed applying rubbing Isopropanol (alcohol) for chronic joint pain.
Dx: Toxic metabolic encephalopathy 2/2 unintentional Isopropanol toxicity in setting of repetitive topical application of Isopropanol for chronic joint pain with community acquired pneumonia.

Problem Representation: 50Y/M with ESRD on HD admitted with unresponsive, intubated with concerned poor GCS, found to be have elevated AG and osmolar gap, Dx as **Toxic metabolic encephalopathy**

Teaching Points(Hee Mun):

Approach to 50M unresponsive: assess primary neurology (stroke, subarachnoid hemorrhage), circulatory shock, metabolic causes; evaluate breathing, pulse, and bystander CPR.->ASK previous conditions, PMH, unresponsive or groaning GCS, assess neuro status.

Finding at toilet: upright & stiff;parasympathetic response, sitting strain, paroxysmal, AS syncope, hypoxemia (poor circ/shock), low SpO2, venous O2 sat:, diff ventilating, neuro impairment// Cough with mucus: consider sepsis or circulatory issues; anticoagulant use./Comorbidities: dialysis, HTN, DM.

Neuro: PRESS encephalopathy or seizure, sympathetic tone, multiple HTN, circulatory volume issues like clonidine withdrawal, glargine use also important.//Gabapentin toxicity

Hypothermia due to hypothalamic dysfxn or autonomic failure (sepsis, low CO, poor perfusion); pt warm skin (blanket), consider hypoglycemia, thyroid/adrenal dysfxn, temp loss; can cause seizures-> Neuro Imaging

Sepsis with hypothermia and brain failure—treat empirically antibiotics also suspect viral encephalitis,PRESS ./if shock low co and hypotension- NE tx
Lab: High MCV with normal B12 and folate, WBC not severe.

High anion gap metabolic acidosis: uremia or RF (serum phosphorus), lactate
Serum osmolar gap: elevated in alcohol poisoning (e.g., methanol, ethanol, ethylene glycol) , helps rule out renal failure.

High serum osmolality with normal EtOH suggests methanol tox
Treatment : Acidosis with pH 7 and low urine output, suggesting need for dialysis (AEIOU), requires urgent treatment with fomepizole for poisoning, followed by dialysis if indicated.
Isopropyl alcohol toxicity, though rare from rubbing alcohol or hand sanitizers delayed toxicity due to dialysis , blindness CNS depression