

02/07/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Minahil Ramzan (@minahilramzan09) Case Discussants: Reza (@DxRxEdu), Rabih (@rabihmgeha)

CC: 61 F with **AMS and hyperglycemia**

HPI: Presented to ED due to **confusion and difficulty speaking**. Code stroke -> no deficits, normal CT head and CTA head / neck. Returned back to neurological baseline with IV fluids.

1 week Hx of **abdominal pain, N/V (brown in color), decreased oral intake** (unable to tolerate medications or solid foods, able to drink some fluids), and persistent acid reflux. Minimal effect from over-the-counter remedies.

ROS: Denied fever, chills, chest pain, SOB, hematemesis, melena.

PMH:

Type 2 diabetes w/ neuropathy
Hypertension
Hyperlipidemia

Meds:

Atorvastatin
Lisinopril
Metformin
Glibenclamide

Fam Hx:

Mother has DM, stroke. Father HTN. Gastric cancer in grandfather.

Soc Hx:

no travel, sick contacts

Health-Related Behaviors:

denied smoking, alcohol use or drugs.

Allergies: allergic to Losartan (hyperK)

Vitals: T: 36.7 BP: 110/57 mmHg HR: 95 bpm RR: 25 Sat: nl
Exam: Gen: obese, ill appearing, in acute distress.
HEENT: dry mucous membranes.
CV: RRR, nl **Pulm:** nl, no respiratory distress.
Abd: distended, soft, and diffusely tender. No guarding.
Neuro: AOX3, no focal deficits, strength and sensation grossly intact.

Notable Labs & Imaging:

Hematology:

WBC: 10.1 (neutrophil predominant) Hgb: 13.5 Plt: 234 MCV: 85

Chemistry:

Na: 112 K: 4.8 Cl: 65 CO₂/HCO₃: 17
BUN: 109 Cr: 3.3 (baseline 0.5) Glu: 554 Ca: 7.7 Anion Gap 30
AST: 23 ALT: 14 ALP: 80 Bili: 1.7 (direct 0.2) Lipase: 99
Blood & urine cultures: negative. Flu/COVID/RSV: negative. HIV: negative.
VBG -> pH: 7.4 pCO₂: 40.9 HCO₃: 24.7
Lactic acid: 6.2 Beta-hydroxybutyrate: 1.6 Serum Osm: 301 HbA1c: 8%

UA -> SG: 1.018 pH: 5.5 protein 1+, glucose 2+, trace ketones, WBCs 2, RBCs 1, a lot of hyaline casts, many epithelial cell.
Ur Cl:15 (low) Ur Na:11 (low) Ur K:48 Ur Osm: 378

-> **persistent abdominal pain + not passing gas + no bowel movements**

Imaging: Abd Xray: **diffuse dilation of small bowel loops.**

Abdominal CT: air-fluid levels, diffuse small bowel dilation (transition point in distal ileum), **pneumobilia with biliary dilation.**

-> NG tube for decompression -> **diagnostic laparoscopy: large mass in RLQ proximal to ileocecal valve, contracted gallbladder with adhesions.**
Enterotomy revealed **gallstone.**

Dx: Gallstone ileus.

Problem Representation: A middle-aged woman with Hx of complicated DM presented to ED with AMS, difficulty speaking and abdominal pain. Course of hospitalization was complicated by small bowel obstruction.

Teaching Points(Rahul):

Hyperglycemia - Altered Mental status due to cerebral edema. Could be other way around, With h/o DM, not on insulin- Hyperglycemia.

Difficulty speaking: **Aphasia**(inability to understand/produce language)vs **dysarthria**(affects ability to speak)

Molecules like Meds effects from head to toe. Likewise anemia causing fatigue. CK, AGMA would be helpful.

Tachypnea with NI O₂: **Acidosis,Anxiety, pain.** **Ruling out respiratory tract obstruction.**

Diffuse tender, distended abdomen: **visualize the anatomy.**
Bowel(Obstruction/perforation/Ischemia), Pelvic exam look for inguinal/femoral/obturator hernias. CT abdomen would be helpful in this situation to r/o obstruction/perforation.
Hyponatremia due to hyperglycemia/ Limit NS to avoid acidosis/ AKI. LR is preferred. Osmotic demyelination is not due to rapid correction of Na+ AKI: Pre(hypovolemic) vs Intrinsic.

Metformin is holded in the setting of AKI.
Starvation ketoacidosis in the setting of starvation. Lactic academia in this pt could be Type A(Metformin vs Ischemia)

If pretest probability for mesenteric ischemia is high- get the abdominal CT angiogram irrespective of GFR(benefit>risk)
Continuing LR+ Insulin to shut down ketosis.

3-6-9 rule(Normal Bowel diameter): small bowel(<3cm), LB:<6cm, Cecum<9cm.
Air-fluid level: Lack of bowel motility. Adynamic Ileus would be possible too. Look at bowel wall, any thickening/ air in the wall.
Pneumobilia: Gas producing bacteria vs colo-biliary fistula. SBO: 70%adnesions, 20% hernias, 10% gallstone ileus