



11/9/20 Morning Report with @CPSolvers



Case Presenter: Robert Centor (@medrants) Case Discussants: Dhruv Srinivasachar (@TheRealDSrini) and Sukriti Banthiya (@sukritibanthiya)

CC: I feel drunk

HPI: 41yF w/ "I feel drunk" without having any alcohol. 12-14h of confusion, imbalance in walking and slurred speech. Usual state of health prior to episode. Has had this twice before associated w/abnormal labs.

ROS: Chronic diarrhea, has not changed since surgery. No changes in eye vision.

Further reading and... Dietary history: first 2 after celebrations w/high carb meals and 3rd after a pasta meal.

PMH:
Short Gut syndrome - bariatric surgery (RYGB w/chole 3yago; complicated w/ post op SMA thrombosis → resection of small bowel)

Meds: No changes. Spironolactone. Loperamide PRN. 650mg Sodium bicarb. Levothyroxine. Multivitamins

Fam Hx:

Soc Hx:

Health-Related Behaviors:
No alcohol, tobacco, drugs.

Allergies:

Vitals: T: 97 HR:72 BP:115/84 RR:nl SpO₂: 100%

Exam:
Gen:Thin, no acute distress. Had lost a lot of weight after surgery.
CV: Normal **Pulm:** Normal
Abd: Scars consistent w/ procedures. Skin laxity. No tenderness, no visceromegaly.
Neuro: CN intact, slurred speech - family noted more than physicians. Ataxia on gait. Sensation normal limits.
Extremities/Skin: No rash or obvious lesions

Notable Labs & Imaging:
Hematology: Normal

Chemistry:
Na: 140 K:3.8 Cl:116 CO₂:9 BUN:5 Cr:0.8 glucose:83 Cu: 74 (nl 70-155), Zn: 60 (nl 60-130) TSH 2.8 (nl 0.35-5.5) Vitamin B12 670 (211-911) Ammonia 19 (nl 12-50) Thiamine 7 (ml 9-44), Albumin 2.5

ABG: ph 7.2, pCO₂ 13 (nl respiratory compensation), pO₂ 138. Bicarb 5. AG: 15 (Expected gap: 7). Delta Gap: 12.

Mild increase in L-Lactate. D-Lactate >6.

Final DX: D-Lactic Acidosis from Lactobacillus conversion of sugars into D-Lactate.

Problem Representation: A 41yF w/a PMHx of RYGB complicated w/ further small bowel resection presents w/ recurrent episodes of altered mental status after high carbohydrate meals.

Teaching Points (Maria):

- **Neurological recurrent symptoms:**
 - Imbalance: cerebellum - acute/ recurring cerebellitis.
 - Acute → MIST: Metabolic, Infectious, Structure, Toxin
 - Recurrence/Relapsing: What are the triggers? Young patients w/focal deficits: MS.
- **Feeling drunk w/no alcohol:** D-Lactate acidosis. Auto- brewery syndrome (gut fermentation).
- **Bariatric surgery:**
 - Malnutrition - vitamin deficiency, specially thiamine and B12 (reassure compliance!); dumping syndrome - electrolyte abnormalities. Hyperammonemia.
 - Thiamine def: In: short gut, malabsorption sx, patients who consume alcohol. Causes cerebellar degeneration, associated w/lactic acidosis. Doesn't hurt to replenish B1!
 - Small bowel has gram positive organisms, as its shorten it results in "colon"-ization colon → small bowel, benign but allergic to food organisms → Auto Brewery syndrome, **Lactobacillus converting sugar from carbs → D- Lactate (Lactate Acidosis) (sadly resolves w/ no more pasta!).** Bowel associated arthritis and dermatitis. Tropical sprue. Endogenous Botulism.
 - 30% decrease in mortality w/ RYGB. > Sleeve.
- **Meds:**
 - Spironolactone: Na or K abnormalities.
 - Sodium bicarb: a teaspoon of baking soda is 60 mEq. 650mg tab has only 7.5mEq.
 - Levothyroxine: Thyroid disorders may be associated w/ other endocrinopathies.
- **ABG:**
 - Delta gap: anion gap w/ no anion gap - Bicarb less than what it should be w/no accountability in anion gap. Acidosis: gap acidosis by same mech as L-Lactate, Kidney exchanges Lactate w/Cl causing non gap acidosis.
 - Winter's equation uses blood gases.