



10/3/22 Morning Report with @CPSolvers



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CC: abdominal pain

HPI:
47 yoW p/w 4 day history of abdominal pain
Epigastric pain that radiates across entire abdomen, constant, 10/10, no relieving/exacerbating factors
Nausea, vomiting, and diarrhea
No dysuria, urinary frequency, or hematuria
Progressive lethargy for the last 10 days

PMH:
URI two weeks ago

Meds:
None

Fam Hx:
None

Soc Hx:

Health-Related Behaviors:

Allergies:
None

Vitals: T: 101.3 HR: 160 BP: 92/52 RR:20 SpO₂: 100% 2L NC

Exam:
Gen: oriented to self only, lethargic
CV: tachycardia without M/R/G
Pulm: clear to auscultation
Abd: soft, diffusely tender, no rebound/guarding/ no flank tenderness
Neuro: 3+ DTRs bilaterally

Notable Labs & Imaging:

Hematology:
WBC: 15.9 Hgb:nl Plt:nl

Chemistry:
Na: 159 K: nl Cl: CO2: BUN: 120 Cr: 3.1 (previously normal) glucose: nl Ca:12.4 Phos: nl Mag:nl
AST: ALT: Alk-P: T. Bili: Albumin:

Imaging:
EKG: atrial flutter, 2:1 block
BP,BUN,Cr,Ca improved with aggressive fluid resuscitation
HR remained 150
Infection work up neg
TSH <0.01
Free T4 - 5.81
Free T3 218
Diagnosed with thyroid storm - thyroid stimulating antibodies returned markedly elevated

Dx: Graves disease

Problem Representation: A 47yF presenting w/ 4 days of diffuse abdominal pain, N/V, diarrhea and progressive lethargy for last 10 days. She is altered mentally, tachycardic and feverish, DTR are brisk and labs are notable for hypernatremia, hypercalcemia and undetectable TSH w/ elevated thyroid hormones. EKG shows atrial flutter.

- Teaching Points (Yazmin):**
- **Endocrinologic causes of abd pain:** DKA, acute adrenal insufficiency, ovarian rupture, struma ovarii, ectopic pregnancy, adrenal or thyroid METs, hyperPTH that can cause severe constipation, some (islet cell) pancreatic tumors.
 - Hypercalcemia in this px. → **Thyroid storm:** hyperpyrexia, tachycardia, severe nausea, vomiting and severe agitation and anxiety. (which is not present in this px.) **It can be the initial presentation of a hyperthyroid state.**
 - Can increase Ca in the setting of high bone turnover, it is a **hypermetabolic state:** ↑ Thyroid hormone → ↑ osteoclastic activity → ↑ bone resorption
 - **NEXT STEP:** 1) Determine PTH levels to determine if it is mediated by it. As well as TSH levels. 2) Heparin displaces the thyroxine-binding globulin ∴ REPEAT the labs to determine how to proceed.
 - **HyperNa + diluted urine think Diabetes Insipidus.**
 - Due to the undetectable TSH → **Thyrotoxicosis**. Can be due to overproduction by either the thyroid gland (i.e., hyperthyroidism) or an ectopic source, inappropriate release of thyroid hormone (e.g., in thyroiditis), or ingestion of exogenous thyroid hormone (accidental or intentional)
 - Look for TSI: antibodies that tell the thyroid gland to become more active and release excess amounts of thyroid hormone into the blood
 - Do an **iodine scan (it is faster)** until you have the USG → any iodine will be detected, in Graves would show diffuse uptake, in a hot nodule you would see a delimited area, in thyroiditis no uptake.
 - Iodine + px with a hot nodule = worsen a hyperthyroid state
 - Iodine + Px with Graves = you can “shut down” the issue transiently
 - Iodine + Hashimoto = can progress to hypothyroidism
 - **Treatment in this case:** We have to block Thyroid Hormone with PTU or Methimazole, determine Beta-blockers, cholestyramine to block reabsorption of thyroid hormone
 - The hypernatremia in this case is most likely due to severe dehydration, we can suspect it due to the BUN:Cr ratio.