02/03/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: University of Miami (Palm Beach JFK) ***Case Discussants**: Ravi (@rav7ks) and Jia (@JiazhangXing)*

CC: A 73 year old male presented to the ED with dizziness and fatigue

HPI: Referred to the ED from regular follow-up **3 months before which he was apparently normal**: had a COVID infection, post which started experiencing dizziness, lightheadedness and fatigue, the symptoms are Episodic in nature with no specific pattern, relieved by eating/drinking something, the symptoms have been waking him up at the middle of the night
ROS: denied sensation of room spinning, loss of balance/coordination, Decreases in appetite, no specific abdominal pain, palpitations, urinary/bowel incontinence, no neurological deficit

PMH: No relevant PMH

Meds: OTC multivitamin

Fam Hx:
Type 2 Diabetes in Mother

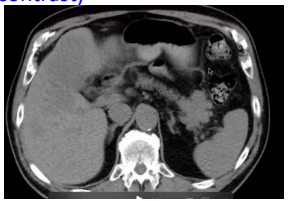
Soc Hx: no alcohol/smoking/drugs
Lives with wife

Allergies: no

Vitals: T: Afebrile **BP:**150/72 **HR:**70 **RR:**17 **SpO2:**98%
Exam: no orthostatic hypotension
Gen: no acute distress
HEENT: wnl
CV: no JVD, no murmurs
Pulm: wnl
Abd: soft, NTND, no organomegaly
Neuro: wnl, no focal neurologic deficit,
Extremities/skin: wnl

Notable Labs & Imaging:
Hematology:
Hgb:13.5 WBC:10.1 Plt: 324
Chemistry:
Na: 131 |K:5.1 |Cl:94 |HCO3:27 |BUN:18 |Cr:1.05 |
AST: 48 | ALT:47 | Alk-P:121| T.Bili:0.6 | Albumin: 3.2
CoVID:negative | Hba1c:5.2| Glucose:127→30(within 2 hours)
Insulin:59.6 (3-25)| C-peptide :elevated | ketones:nl | ACTH:nl, cortisol:nl
Imaging:
EUS FNAC biopsy pancreas: immunostaining positive for **neuroendocrine tumor** in primary pancreatic lesion; staining positive for synaptophysin and chromogranin
CT Abdomen/Pelvis: pancreatic mass at the tail of pancreas, hypodense lesions in the liver(without contrast)

Dx: Insulinoma



Problem Representation:
73 M with dizziness, fatigue with fasting episodic hypoglycemia with High insulin, C-peptide.CT abdomen showing mass in tail of pancreas on HPE consistent with Neuroendocrine tumor(insulinoma)

Teaching Points (Vijay + Deb):
- **CC:** Is dizziness causing fatigue or opposite. Dizziness: Neurologic, vascular. Fatigue: Objective weakness vs asthenia
- **COVID:** Post COVID complications(autonomic,cardiac, Multisystem).
Long covid → can miss a lot of things! Don't say is " long covid" without checking other diseases. You can miss an a important disorder.
Ddx: Cardiomyopathy, hepatitis, malignancy, MIS-A.
- Baseline functional status: Is it new, how is the patient activities daily.
Neurologic signs suggest CNS involvement: HINTS(if Symptomatic), Dix hallpike, Cerebellar
- **Episodic** improvement with eating: Look for hypoglycemia.
Neuroendocrine tumors, adrenal insufficiency.
- **Normal exam** makes us think of **metabolic** (Liver, renal, adrenal)
- Pseudohypoglycemia(CBG falsely low), Reduced food intake.
- **Labs:** AI: 1ry:Low Na, NAGMA, **HyperK**, Hyperpigmentation, Weight loss (Prototype may not be present). MCC; Autoimmune(US), TB(outside)
Cortisol <5: AI,5-15: ACTH stimulation test.>15: rules out AI
The hyponatremia is a secondary process, can be caused by polypsia, alcohol intake, adrenal insufficiency.
- **Hypoglycemia:** Confirm with Whipples triad.
PEARL: Hypoglycemia labs **DURING** hypoglycemia episode!
- DM vs Non-DM. Endogenous vs Exogenous Hyperinsulinemia.Fasting vs post-prandial
Labs: Insulin, C-peptide, cortisol, CECT AP
If labs suggest endogenous hyperinsulism with normal imaging → EUS
Liver lesion: with peripheral enhancement concerning for metastasis
Insulinoma: High C-peptide, High Insulin, Low Betahydroxybutyrate.
Look for MEN-1 syndrome when insulinoma diagnosed.
Post surgery hyperglycemia common