09/28/21 Morning Report with @CPSolvers

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CC: 48 yo F w/ facial hair and acne

HPI:
2 month history of virilization. She first noticed acne on face and upper back. Then, it was followed by development of hair on chin and both angles of jaw. 1 month later, her voice got deeper and over the past 2 weeks, she starting develop progressive SOB

PMH:
The evaluation of her primary care physician revealed new onset of BP elevation and hypokalemia (2.3 mEq/L). So, the physician made an ED reference

Meds:

Fam Hx:

Soc Hx:

Health-Related Behaviors:

Allergies:

Vitals: **T**: 36.7 **HR**: 80 **BP**: 110/81 **RR**: 20 **SpO_2**: 97% room air
Exam:
Gen: Hirsutism
HEENT: Cushingoid appearance on face
CV: Unremarkable
Pulm: Diminished air over the LLL
Abd: Soft, non tender, non palpable masses found
Neuro: Unremarkable
Extremities/Skin: Unremarkable

Notable Labs & Imaging:
Hematology:
WBC: 6.8 Hgb: 11.7 Plt: 394
Chemistry:
Na: 133 K: 2.2 Cl: 99 CO2: BUN: Cr: 0.8 glucose: 123 Ca: nl Phos: nl Mag: nl
AST: nl ALT: nl Alk-P: T. Bili: Albumin: 3.4 Bicarb: 23
INR, PTT: normal
Pleural LDH: 624 Serum LDH: 168
Renin:Aldosterone ratio: nl. UA metanephrines: negative. Urinary cortisol: 5x > ULN

Imaging:
EKG: Sinus rhythm with U waves.
CXR: LLL pleural effusion
K+ was aggressively replaced but continuously run low
CT: 6.5 x 6.9 cm mass in the R adrenal gland w/ features suggestive of carcinoma > adenoma. Enlarged lymph nodes throughout abdomen. Lung findings consistent w/metastatic lesions

Final diagnosis: Metastatic adrenocortical carcinoma

Problem Representation: 48 yo F w/ new onset hirsutism, acne, and SOB. Labs noticeable for hypokalemia and mild hyponatremia.

Teaching Points (Dani Cal):
- Development of traits and symptoms that are classic to Males:
  - Tempo (acute or chronic), Hormones (menses and characteristics)
  - Endocrinologic vs Malignancy
- Elevated androgenic hormone: Facial hair, acne
- What can mediate BP (Hypertension) and potassium levels (Hypokalemia)? Are there other symptoms/signs?
  - Hyperaldosteronism
  - Hypercorticoidism
- What can cause all these manifestations to happen?
  - SOB: Cardiac disease + Hypertension or pulmonary process?
  - Other coexisting causes (obesity)?
- Exam and Labs:
  - Ovarian cancer → BP, pleural effusion
  - Meigs syndrome: Ovarian cancer/mass, pleural effusion and ascites
  - Endocrine → Neuroendocrine tumors: Hormone disbalance/excess
- Pleural Effusion: Exudative → ACTH production (tumors in pulmonary space) Thoracentesis before CT-scan for better visualization
- Adrenal mass: Investigate more or Surgery? Incidentaloma? Sampling + distant possibly metastatic lesions + characteristics on imaging
- Primary tumor: Location
- Adrenocortical carcinoma: Late diagnosis