# 04/30/21 Morning Report with @CPSolvers

***Case Presenter**: Thiago Mendes (@mendesthiagob) **Case Discussants**: Rabih Geha (@rabihmgeha)*

**CC**: Hirsutism

**HPI**: 51 F coarse hair throughout the body. Excessive coarse last years and acne.
1 year ago: Dermatologist prescribed levothyroxine
4 months ago: Gyn prescribed ciproterone + etinilestradiol
Last period, 4 years ago. Voice deepened recently.

**PMH**:
Hypothyroidism, HTN, type 2 DM. Loss 20 kg for 3 years and attributed it to diet changes.

**Meds**: 25 mg Levo, Losartan 50 mg daily, Metformin 2gm daily, Galvus 100 mg daily, Contraceptive Ciproterone + etinilestradiol.

**Fam Hx**:
Unremarkable

**Soc Hx**:
Unremarkable

**Health-Related Behaviors**:

**Allergies**:None

**Vitals**: **T**: Nl **HR**: Nl **BP**:140/82 **RR**: Nl **$SpO_2$** Nl **BMI**: 36.7
**Exam**:
**Gen**:
**HEENT, CV, Pulm, Abd, Neuro**: Nl
**Extremities/Skin**: Not acantosis, not moon face. Modified Ferriman-Gallwey score 15 (Nl < 8).

**Notable Labs & Imaging**:
**Hematology**:
WBC: 4.1 Hgb: 12.3 Plt: 381

**Chemistry**:
Na: 144 K:4.1 Cr: 0.72 Ca: 9.1 AST: 29 ALT:41
Fasting glucose: 85 A1C 5.9 HDL: 37 LDL: 134 TG: 104 TSH 2.9 T4 free 4.9 TPO -ve Testosterone: 373 (Nl 15-70 in F) DHEAS: 152 (Nl 8-188 in F)

**Imaging**:
**US transvaginal:** Ovaries not visualized, nos mass.
**CT pelvis:** R ovary mass

Underwent surgery and pathology showed steroidal cells benign tumor. Testosterone levels went down, also improve her voice. Contraceptives were suspended and patient is doing well.

**Final Dx: steroidal cell ovary tumor.**

**Problem Representation**: 51 year old female w/ hx of T2DM presenting with hirsutism, acne, and recent onset of deepened voice, labs significant for high testosterone and normal DHEA-S

**Teaching Points (Gurleen)**:

- **HIRSUTISM**: 1) *Spectrum of normal vs pathology, context is key Hirsutism vs. hypertrichosis (increase in vellus hair - not androgen) 2) Approach:* Familial, idiopathic, excess androgens → endogenous (PCOS, androgen secreting adrenal/ovarian tumors, Cushing's, CAH) vs. exogenous (anabolic steroids, medications such as minoxidil, phenytoin)
  Endocrine: Androgens, cortisol, acromegaly, obesity, deficiency of estrogen
  *3) Layer symptoms based on other associated findings (virilization)*
- **COLLECTING CLUES:** Signs of virilization → acne, deepening of voice, clitoromegaly. Skin exam is important.
  -base rate of disease: PCOS most common cause of hirsutism, but onset at younger age
- **Insulin-receptor antibody syndrome:** pts w/ autoimmune disease, hypoglycemia & hyperglycemia, hirsutism, acanthosis nigricans
- **Adrenocortical carcinoma:** middle age female
- *In endocrinology, normal can be abnormal based on feedback loops.* DHEA-S regulated by ACTH, not testosterone
- Every diagnostic test has its limitations
- Follow up and delve deeper if high diagnostic suspicion
- Important to understand patient's gender identity and not assume based on sex assigned at birth