8/19/26 Morning Report with @CPSolvers

"One life, so many dreams" **Case Presenter**: *Jeffrey Shen* **Case Discussants**: *Dr. Helen Shi & Vale*

https://clinicalproblemsolving.com/present-a-case/

Scribing (Zachary R):

CC: 39 Y/F w/ h/o sarcoidosis + T2DM p/w **progressive weakness** x 6 weeks

HPI:

- Difficulty rising from seat — B/L LE weakness; on standing → dizzy + weak, must sit immediately
- Trouble reaching overhead shelves; needs both hands for heavy pots
- diplopia and blurry vision
- 2 months of multiple abx courses for presumed recurrent UTIs (urinary frequency + discomfort); sx recurred despite abx
- Now: weakness + near-syncope episodes progressively limiting; 1 episode of **urinary incontinence**

ROS:

(+) *intermittent* unexplained diaphoresis;
(+) *intermittent* blurry vision + diplopia

PMH:

Pulmonary and cutaneous sarcoidosis — dx 6 yrs ago, never required systemic tx (aside from steroids)
T2DM
HLD
Obesity
GERD
PSHx: no

Meds:

Atorvastatin
Omeprazole
Metformin
Semaglutide

Fam Hx:

SLE (aunt); Crohn's disease (first cousin)

Social Hx: SAHM

Health-Related Behaviors: —

Allergies: None

Vitals: T: afebrile **HR:** 80 **BP:** 110/70 (supine) **RR:** nl **Sat:** nl on RA
Standing x3 min: BP 84/56, HR 101 → markedly lightheaded, *resistant to fluids*
Exam: Gen: awake, alert, fully oriented; dry eyes
Neuro: CN: B/L CN VI palsies; mild L peripheral facial weakness (forehead + lower face); PERRL, no rel. afferent pupillary defect, acuity preserved; rest of CN nl
Motor: neck flex 5-/5; shoulder abd + *ER 4/5 B/L; hip flex 4-/5, hip abd 4/5* B/L; knee flex/ext 5-/5; distal UE/LE 5/5
Tone: ↑ in B/L LE; UE nl
Reflexes: 2+ UE; 3+ patellar + Achilles B/L; B/L extensor plantars
Sensation: pinprick/temp distinctly ↓ below ~T9; vibration mildly ↓ at toes; proprioception + UE intact
Gait: mildly spastic; difficulty w/ tandem

Notable Labs & Imaging:

Hematology: WBC: 7.4 **Hgb:** 12.5 **Plt:** 281
Chemistry: Na: 129 (L) **K:** 4.1 **Cl:** 95 (L) **HCO3:** 24 **BUN:** 9 **Cr:** 0.7 **Ca:** 9.4
AST: 25 **ALT:** 23 **CK:** 79 **ESR:** 34 **CRP:** 1.2 **A1c:** *7.5 (6.5 ~1 yr ago)*
TSH: 0.5 (L) Free T4: 0.3 (L) | **24h urine output: 5.3 L**
UA: LE + nitrites neg, no pyuria/bacteriuria; urine cx: no growth
Negative/nl: HIV, syphilis, blood cx; B12, folate, thiamine, copper; SPEP/UPEP/FLC; heavy metals; ANA, ENA, ANCA, QuantiFERON, Histoplasma, ACE, IgG4; no exposures (metals/silica/beryllium, implants, drugs, solvents)
Imaging:
MRI T-spine: long-segment intramedullary T2 hyperintensity T5–T11, mild cord expansion; patchy intramedullary + prominent dorsal subpial + thin leptomeningeal enhancement; no compressive lesion. **MRI C-spine:** unremarkable
LP/CSF: WBC 28 (88% lymph), protein 126, glucose 39 (serum 92), RBC 2; bacterial cx, HSV/VZV PCR, crypto Ag, fungal, AFB, cytology, flow — all neg
MRI brain: thickened, intensely enhancing pituitary stalk → hypothalamus; loss of posterior pituitary bright spot; mild basal leptomeningeal enhancement; no cranial/optic nerve enhancement; nonspecific T2 WMLs
Endocrine: panhypopituitarism — adrenal insufficiency, central hypothyroidism, gonadal hormone deficiency, neurogenic DI; hypernatremia/central DI masked by secondary adrenal insufficiency (causing hyponatremia)
Rheumatology + TB: AFB + fungal stains neg, cx neg
CT chest: calcified B/L hilar + mediastinal LAD; upper-lobe predominant nodular GGOs
Prior sarcoid dx never tissue-confirmed → **EBUS mediastinal LN bx: multiple well-formed noncaseating granulomas**, no malignancy;
Final Dx: Neurosarcoidosis (LETM + hypophysitis → panhypopituitarism)

Problem Representation: 39 y/o F w/ sarcoidosis (never on systemic tx) + T2DM p/w 3 wks progressive proximal weakness, orthostatic dizziness, diplopia + recurrent urinary sx; found to have T9 sensory level, LETM (T5–T11) hypophysitis w/ panhypopituitarism + central DI, and lymphocytic CSF, LN bx w/ noncaseating granulomas

Teaching Points (Nithya)

Differential

- **Generalized weakness/fatigue: first consider non-neurologic causes (thyroid disease, anemia, metabolic abnormalities, psychiatric causes) → start with basic labs.**
- **Proximal muscle weakness (difficulty rising from a chair or raising arms overhead) → think myopathy, including autoimmune myopathies and statin-associated myopathy.**
- **"Blurry vision" should be characterized (fatigability, unilateral vs. bilateral, diplopia, and which EOMs are affected) → consider NMJ disorders, optic neuropathy, CN palsy, or primary ocular/systemic disease (e.g., uveitis).**
- **Syncope: keep cardiac causes on the differential; also consider orthostasis, including diabetic autonomic neuropathy.**
- **Urinary incontinence: consider spinal cord compression, peripheral nerve dysfunction, UMN/cortical lesions, and neurogenic bladder. With a concurrent UTI, consider whether underlying neurogenic bladder predisposed to infection.**

Localization

- **Orthostasis: neuro vs cardiogenic vs metabolic (in this case AI, with the low sodium)**
- **Bilateral CN VI palsy can be a false-localizing sign of increased ICP; would expect associated optic disc edema if ICP is significant. With possible CN VII involvement, check taste and hyperacusis to further localize.**
- **T9 sensory level → lesion is likely at or above T9 (no need to image lumbar)**
- **Multifocal neurologic findings: consider leptomeningeal disease given lack of sensory problems + Urinary incontinence (can involve both CNS and peripheral nerves)**
- **Sarcoidosis: can cause multisystem neurologic involvement, including cranial neuropathies and spinal cord disease. + Trident sign on MRI**

Neurosarcoidosis

- **Neurosarcoidosis → inflammation of the hypothalamus/pituitary stalk → impaired hypothalamic-pituitary signaling → hypopituitarism/panhypopituitarism (can manifest as DI, hypothyroidism, gonadal hormone deficiency, adrenal insufficiency, etc.) Important to glean this from the labs**

Note: meningitis can also present with this CSF profile and leptomeningeal abnormalities on imaging (lack of constitutional symptoms makes this less likely, but important to rule out). Also leptomeningeal carcinomatosis