1/30/23 Morning Report with @CPSolvers

Case Presenter: *Laura Arneson* ***Case Discussants:*** *Anisha Dua and Brian Jaros*

CC: 42 y/o F w/subacute lower extremity pain, acute lower extremity numbness & weakness

HPI:
2mo ago, developed new onset pain in both ankles. Worse with standing. Hyperalgesia in legs bilaterally. Now developing numbness -> falls at home.
Fevers up to 103 F for several days
No upper extremity symptoms, night sweats, weight changes, incontinence, saddle anesthesia, or rashes.
Denies localized joint involvement
No Raynaud's, no oral/nasal ulcers, no hair loss, no dry eyes/mouth, no foamy/bloody urine or edema.

PMH:
Hypothyroid

Meds
T4

Fam Hx:
None significant

Soc Hx:
Born in Mexico, last visit few months ago.
No time spent outdoors

Health-Related Behaviors:
No alcohol, tobacco, drugs
No occupational exposures.

Vitals: **T**: nl **HR**: 85 **BP**: 122/81 **RR**: 16 **SpO_2**: nl:
Gen: well appearing, no acute distress
CV: RRR, no MRG **Pulm**: CTAB **Abd:** soft, nondistended, intact bowel sounds
Neuro: CN 2-12 intact.
Reflexes: absent in both ankles, 1+ in both knees, 2+ in upper extremities. *Babinski*: nl.
Strength: 5/5 in both upper extremities. LLE: 5/5 hip flexion, 4/5 knee flexion, 5/5 knee extension, 0/5 foot dorsiflexion & plantarflexion. RLE: 5/5 hip, 4/5 knee flexion, 5/5 knee extension, 1/5 foot dorsiflexion, 4/5 foot plantarflexion.
Light touch sensation: absent in both plantar feet, lower anterior shin, ankles. Diminished in upper shins, intact above thighs. *Proprioception*: absent in bilateral toes & ankles. *Pain sensation:* absent in bilateral feet and ankles. Diminished to knees. Intact above thighs.
Extremities/Skin: no synovitis, no joint effusion, deformity, warmth, or tenderness. Well perfused extremities, no edema. 2+ pulses.

Notable Labs & Imaging:
Hematology:
WBC: 7.8 Hgb: 10.8, MCV 85 Plt: 331
Diff: neutrophil predominant, abs lymphocytes 0.9. No eos.
Chemistry:
Cr: 0.57 BMP: nl Albumin: 3.4 Liver panel nl. Urine pregnancy: nl
ESR 137, CRP 105.8. TSH 1.84. B12, folate: nl.
Urine: 20 ketones. No RBC, WBC, casts.
ANA: 1:1280, homogeneous. C3: nl. C4: low, 9.
Positive dsDNA, 1:80. anti-RNP. anti-Sm. Neg. RF, cryoglobulins, c-ANCA, p-ANCA.
Neg HIV, syphilis, west nile, lyme. Indeterminate quantiferon.
LP: protein 17, glucose 52, negative meningitis PCR, bacterial culture. Abs. IgG elevated.
Imaging/biopsy:
MRI spine: no spinal stenosis or cord enhancement. Increased retroperitoneal & iliac LNs.
MRI brain: no significant abnormality.
EMG: superficial peroneal sensory responses decreased on right, absent on left. Posterior tibial nerve responses absent bilaterally. Upper extremity recordings all normal. Overall consistent w/axonal injury.
L gastrocnemius biopsy: mild, nonspecific myopathic changes. L sural nerve biopsy: no evidence of granuloma, vasculitis. No significant other findings.

Diagnosis: lupus, presenting w/mononeuritis multiplex

Problem Representation: 42 yo F presents with newly developed, subacute lower extremity pain, numbness and weakness, (+) ANA, dsDNA, anti-RNP, anti-Smith and EMG with axonal damage.

Teaching Points (Yazmin):
Initial approach: Weakness + pain vs. "True" weakness
- Determining the onset of the weakness can help us differentiate between drug-induced causes or is it an idiopathic inflammatory myopathy.
- If the onset is acute think of possible triggers such as infections
- Fever and joint involvement Suspect Reactive Arthritis
- Hypothyroidism Is it controlled? May be the cause of weakness and paresthesias.
- If a px has an autoimmune dx there is a probability of presenting another one.

Involvement of extremities in a px with WEAKNESSS
- Look for discrepancies in the "ascending" nature of the weakness as well as the motor involvement
- UMN vs LMN features + affected strength → Mononeuritis multiplex as a ddx

Work-up for MN
- Aside from autoimmune profile → blood cultures to look for infections,and search for malignancy, CBC to look for cytopenias, UA for hematuria
- **EMG to characterize whether the axons are damaged or if its a demyelinating process**

Labs analysis → **Do not do them randomly →Consider consistency with S&S**
ANA titers: The higher the # the higher the # of times it was diluted to be quantified
- Anti-RNP can point towards a mixed connective tissue dx.
- Look and the levels of ANA, in this case (+), look at which other antibodies appear (+) → how are the **C4, C3** (which are APR.)

BEWARE! Falsely ↑ ESR IF YOU HAVE ANEMIA vs. Falsely ↓ ESR bc you are not making enough APR due to liver dx
Undifferentiated connective tissue dx vs. SLE →S&S should show more SYSTEMIC issues
Vasculitic neuropathies approach → **Acute** onset MN with axonal injury raises suspicions for VN + pain **that precedes** the weakness + Additional **constitutional symptoms**
Treatment → **Consider risk and benefits**
- Consider acute tx. With MTX to decrease symptomatology as well as high pulses of Methylprednisolone
- In severe vasculitis or lupus with nerve involvement → 1g IV x 3 days
- Cyclophosphamide for induction & Hydroxychloroquine for maintenance treatment
- Always consider drug-induced vasculitis and differentiate it → **IF pan(+)serology** → orients towards Vasculitis.
- IVIG is used for AMN so its very important to establish the ddx.

DIAGNOSE FIRST AND THEN APPLY THE CRITERIA