9/19/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Rahul Pottabathini*(@)* ***Case Discussants****: Rabih(@rabihmgeha) and Maryana(@)*

CC: 27 YOM p/w tingling, numbness, and burning sensation of b/l LE

HPI:
5 days ago, sudden onset loss of sensation and numbness initially below umbilicus which progressed to entire lower limb over the next 2 days. Also couldn't differentiate between hot and cold while taking bath. Felt band-like sensation below belly button and inability to feel his clothes below waist. Following this, 3 days before presentation, began noticing difficulty getting up from bed in morning. He tried to walk with the help of others but felt limbs were stiff and confined to bed since then. Also had urinary symptoms of difficulty emptying bladder fully, weak stream, and increased urgency, though could still sense when his bladder was full. Positive for constipation. Prior to this, completely healthy and functional.

2 days after admission, developed blurry vision in the L eye when attempting to read items both up close and at a distance. Noticed difficulty in perceiving colors. No eye pain, discomfort with eye movements, or double vision. No changes in sensation to face. No issues opening and closing his eyes, swallowing, or eating.

PMH:
None

Health-Related Behaviors:
Smokes 2 packs cigarettes/day. No history of alcohol or substance use. No recent travel, sick contacts, or vaccinations.

Allergies:
None

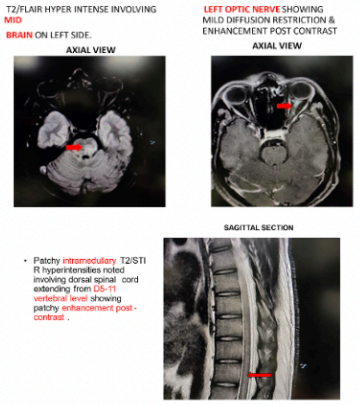
Vitals: T: afebrile **HR:** 82 **BP:** 110/80 **RR:** 14 **SpO2:** 99% on RA

Exam:
Gen: AOx4
Neuro:
Optic nerve:
R: Visual acuity 20/20
L: Can only count fingers at 1 m with decreased color perception
Fundus exam: Normal in both eyes
Pupillary exam:
R: normal
L: relevant afferent pupillary defect
Motor exam:
Upper limbs: Tone normal on both sides, 5/5 power, 3+ reflexes
Lower limbs: Increased tone on both sides, 1/5 power, 3+ reflexes
Babinski: Extensor plantar responses b/l
Sensory exam: Fine touch, crude touch, temperature, proprioception, and vibration is absent below level of umbilicus on both sides
Cerebellar, meningeal signs: negative

Notable Labs & Imaging:
Hematology:
WBC: 6.7 Hgb: 13.9 Plt: 279

Chemistry: wnl
HIV, HCV, hep B serologies: negative
HSV, EBV, CMV: negative
Vit B12: 727, CRP: negative, ESR: 15
TB skin test: negative

Imaging:
CXR: negative
MRI spine with contrast: see right images



CSF:
100% lymphocytes, proteins: 91,
glucose: 72, oligoclonal bands: negative
Infectious studies: negative
ANA: negative
Anti-aquaporin 4 IgG: negative
Anti-MOG: negative

Dx: **Seronegative neuromyelitis optica spectrum disorder (NMOSD)**

Problem Representation: 27 YOM, otherwise healthy, p/w b/l LE neuropathy and L eye vision changes with MRI findings c/w seronegative NMOSD.

Teaching Points::(Sawsan)
Neuropathy: Isolated vs systemic + time course: abrupt vs slowly progressive
Bilateral LL neuropathy: usually the denominator is the peripheral nerve.
#**Isolated neuropathy** usually has a slow and
Progressive course.
*Abrupt and isolated makes peripheral neuropathy less likely, making a cord cause more likely.
The presence of **urinary symptoms** (Urgency -> stiff and hypertonic bladder=UMNL)+ **sensory level** makes a **cord** process more likely.
Visual symptoms:
-Visual loss: retinal hemorrhage or ischemia
-Double vision: Ocular vs neuro like cranial nerve issue or corneal.
- blurry vision: brain is receiving a blurred vision usually due to an ophthalmologic issue (cataract,vitreous hemorrhage,..),
with **2 exceptions**:
1/pupillary(like horner syndrome) 2/disease of the optic nerve(edematous,swollen,infiltrative)
the presence of change in color perception and a relative afferent pupillary defect favors an optic nerve disease.
#optic nerve disease that is proximal and near the brain may not show on fundoscopic exam.
#**EYE+CORD=** think of demyelinating issues.
WHY MS is less likely in this case? *extent and severity of visual sx. *very long vertebral lesion extension. * no evidence of Dawson fingers
#NMOSD has a strong propensity to affect the brainstem.
the test of choice for NMO is a blood test, csf results are insensitive.
for dx a seronegative NMOSD we need 2 core disease sx disseminated in time and space