06/29/21 Neuro Morning Report with @CPSolvers

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CC: B/l lower extremity paresis.
HPI:
40 yo F presents w/ simultaneously occipital headache of a 7/10 intensity since 2 days and b/l LE weakness that subsequently progressed to the point of inability to stand.
She went to a local clinic and was given corticosteroids w/o no effect on her paresis.
The day of presentation was completely unable to move her legs and then came to the ED.
Denies bladder/bowel incontinence, neck stiffness or neck pain, paresthesias, weight loss, fever, night sweats, cough, chest pain, rashes.

PMH:
None

Meds:

Fam Hx:
None

Soc Hx:
Denies alcohol & tobacco consumption

Health-Related Behaviors: None

Allergies:
None

Vitals: (normal) **T**: **HR**: **BP**: **RR**: **SpO_2**:
Exam:
Neuro
- **Mental Status:** Oriented to person, time and place.
- **Cranial Nerves:** II - XII nl (PERLA)
- **Motor:** Muscle bulk and tone normal. UE strength normal. LE ⅕ strength in all muscle groups.
- **Reflexes:** LE & UE Nl. Plantar reflex: downgoing plantars b/l.
- **Sensory:** Patchy loss of pain & temperature sensation up to thighs. No discrete sensory level obtained. Vibration and proprioception was normal.
- **Other:** No evidence of neck rigidity. Brudzinski sign negative.

Notable Labs & Imaging:
Hematology: BMP normal.
Chemistry: B12 nl. HCV, HIV, HbsAg, syphilis serology non-reactive
LP: OP normal. 72 cells (90% L), Glu 346. No oligoclonal bands.
Imaging:
MRI - Focal solitary 35*20 mm lesion in the splenium of the corpus callosum. On the L side there is a faint peripheral irregular rim enhancement. The lesion shows a central non enhancing area w/ hypointensity on T1 and hyperintensity in T2 and FLAIR sequences.
Spinal cord - long segment intramedullary multifocal T2/STIR hyperintense changes within the dorso-lumbar cord. The predominant lesion was extending from D1-D7 level. Another lesion was noted at D8-D9 & D10-12.
Ro-atb: 98 U/ml (positive), La-atb: 40 U/ml (positive). AQP4 antibody: positive.
Final diagnosis: Sjogren + NMO. Rx: corticosteroids and rituximab

Problem Representation: 40F p/w an acute onset occipital headache, LE weakness & loss of pain and temperature sensation. LP showed lymphocytic pleocytosis and imaging showed a focal lesion in corpus callosum, ring enhancing lesions and hyperintensities in dorso-lumbar cord.

Teaching Points (Vale): #EndNeurophobia
B/l LE Paresis: Is it true weakness? Diff from asthenia, fatigue, ataxia, sensory. Neuro vs Non Neuro causes.
- **Localization:** Upper vs Motor Neuron -> B/l Cortex, Corona radiata, Spinal cord, Roots, Nerves, Neuromuscular junction, Muscular. B/l lower extremity paresis prioritize spine and peripheral roots/nerves.
- **Time Course:** Hyperacute (Stroke, trauma) vs Acute (Metabolic, transverse/inflammatory myelitis, abscess, GBS) vs Subacute (mass-effect, TB) vs Chronic (Degenerative, spondylosis, HSP, HTLV-1, AIDS).

Headache: Occipital (PRESS-ask for PMH of HTN & use of steroids).
- **Acute onset** (meninges & brain. Infxs, AV fistula (steroid use), RCVS)
- **Headache + B/l paresis:** Hemiplegic migraine -> history of headaches. TB, Inflammatory post infxs encephalitis, Venous Sinus Thrombosis.

Who is the patient?: Middle age woman -> Idiopathic intracranial HTN. Immune status? & Exposures? -> Infxs.
Looking for clues: Systemic symptoms, neck rigidity (infxs), ROTs, Babinsky (Upper vs Lower MN, maybe too early to tell), sensory.
Paresis + Loss of pinprick sensation: Anterior Cord Syndrome. + Headache -> Multiple infarcts? (Vasculitis).
Tempo is queen: Inflammatory spine conditions (acute) can be similar to vascular (hyperacute) in imaging.
CSF Lymphocytic Pleocytosis: Infxs vs Non Infxs (autoimmune & malignancy). Autoimmune encephalitis have an S on it: Sjogren, Sarcoid, Susac Syndrome, SLE.
60-70% of encephalitis in Sjogren's is caused by NMO.