10/27/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Jasdeep Bajwa (@JasBajwa18) Case Discussants: Rabih (@rabihmgeha) and Reza (@DxRxEdu)

CC: 65 yo male presenting with 5 weeks of diarrhea along with 2 weeks of memory impairment

HPI: Pt had been evaluated for diarrhea outpatient, c dif. negative, giardia negative. Symptoms are not affected by food intake. About the neuro symptoms: short-term memory loss, don't remember significant conversation with people, stopped speaking midway sentences without remembering what he was going to say. Refers fatigue, but associates it with dehydration. 7 months ago started with symptoms of polyarthralgia, positive for HLA-27, mycophenolate added, symptoms improved. Due to diarrhea, dose of mycophenolate was decreased, but symptom persisted. Started w/ bilateral LE numbness and weakness, decided to come to ED, no visual changes, no speech impairment.

PMH: pulmonary and hepatic sarcoidosis, was on steroids for a long time, OSA, DM, HLP, GERD

Meds: hydroxychloroquine, mycophenolate, atorvastatin, dulaglutide, PPI

Fam Hx: None

Soc Hx: Travels to different states, but hasn't gone anywhere in 6 months, wife recently came back from Puerto Rico

Health-Related Behaviors: in monogamous relationship

Vitals: T: wnl **HR:** wnl **BP: wnl RR: wnl**

Exam:

HEENT: No lymphadenopathy

CV: RRR, no murmurs

Pulm: Clear lungs

Neuro: reduced reflexes in LE +1 (LE)/+3 (UE), diminished strength in LE ⅗, touch diminished in LE

Extremities/skin: No rashes

Notable Labs & Imaging:

Hematology:

WBC: 14.000 neutrophils predominance Hgb: wnl Plt: 129/115 previously - 89 during hospitalization- chronic thrombocytopenia

Chemistry: CMP - within normal limits

INR: wnl, lipase 130 B12: wnl, Iron: normal, mildly elevated ferritin

Immunologic: all negative - ANA, ssa/ssb

Infectious: all negative - histoplasma, HIV, VDRL. Stool sample repeated and came back negative

LP: elevated protein (64), glucose: 44 (normal), cell count clear and colorless, elevated nucleated cells: 13 (lymphocytes), gram stain negative, IgG index normal, cryptococcus, CMV, enterovirus, E coli, HSV ½, HHV6, listeria, Neisseria - all negative

Continued investigation: paraneoplastic panel came back negative, IgM/IgG west nile virus CSF +

Imaging:

Head CT: no abnormalities

MRI: normal, chronic microvascular ischemic disease

Dx: West Nile Virus

Problem Representation: 65yo man with PMH of HLA-27+ polyarthralgia presenting with 5w of diarrhea, 2w of memory loss and acute-onset LE weakness. All labs and images were negative, except for IgM/IgG west nile virus.

Teaching Points (Ayesha):

- **CC** → signals to a Primary GI OR Primary neuro indication
- ***Diarrhea***: Due to true increase in water content, **rectal storage issues** (Neuro - ileus, autonomic neuropathy - overflow incontinence, inflammatory → proctitis), Hypothyroidism.
- Duration of Diarrhea: a week (acute), 1-4 weeks (subacute), months - chronic. Does it occur at night (indicates secretory)? Food intake? (helps to rule out malabsorptive, osmotic, secretory). 1. Inflammation present? (systemic - look at vitals e.g. fever) → Think of the **3 I's: Infection, IBD , infiltrative disorders** - Malignancy?) 2. Look at labs (leukocytosis, ESR, CRP) 3. Look at the stool
- **HPI:** Determine the timeline of the symptoms (which symptoms precedes the other)
- Thinking about **(GI tract, joints, brain)**, could it be a multisystem disease involving GI tract, joints and brain.
- **Possibility of Sarcoidosis**: Ask in what way is the patient decompensating and in what period of time? 2 chronic mimics of sarcoid: 1. **Foreign body induced granulomatous reaction** - silica imbedded? Any foreign body imbedded? 2. **Immunodeficiency**. (Can also be less common indolent infections).
- **PE & labs:** Now thinking of Brain to PNS issue? Shows LMN + hyperreflexia (is it a peripheral nerve? Is the peripheral nerve affected inside the cord → Cauda equina?. Demyelinating process?
- Peripheral Nervous System: Slowly progressive, sensory predominant, symmetric.
- Fungal (lack of EOS eliminates the possibility)
- Is there a **bone marrow** involvement? → leading to thrombocytopenia.
- **Approach 1:** MRI negative: Nutritional deficiency (if negative, send LDH (intravascular lymphoma)), do upper endoscopy to check for Whipple's disease, paraneoplastic phenomenon?
- **Approach 2:** MRI negative brain disease: intrinsic to brain? **Subtle extrinsic disease** (*inflammatory* → intravascular lymphoma, genital neoplasms (testicular) vs *noninflammatory* → initiating from GI tract pellagra (B3 deficiency), bismuth → diarrhea, confusion. Toxins), *Infections* (Whipple's disease, epidural abscess → AMS)
- **Intrinsic** (prion disease - can cause diarrhea, and neuropathy) and Autoimmune encephalitis . Parenchymal intrinsic, meningeal issues