06/21/21 WDx 👑 Morning Report with @CPSolvers

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CC: Seizures

HPI: 30yM p/ to ED of neighboring hospital w/seizures, AMS and irritability.

Was alright a couple weeks back, when he had a headache → tonic clonic seizure, he remained drowsy for 10 minutes after episode. Afterwards, the seizures gained frequency. In interictal periods had irritability.

In hospital he was dx with status epilepticus, was intubated and taken to the ICU.

No history of trauma. Brother mentioned that he didn't have fevers before seizures, but had fevers in postictal periods.

PMH:
None.

Meds:
None.

Fam Hx:
Unremarkable.

Soc Hx: Works construction mostly w/ cement. Lives w/ children.

Health-Related Behaviors:
5y history of smoking, and occasional cannabinoids?

Allergies:

Exam:
Previous hospital: Was treated for viral encephalitis. Conscious level didn't improve, on day 10 had a tracheostomy done. GCS remained 6/15.

Actually:
Gen: On new hospital: Spo2: nl w/O2 2L/min.
Neuro: GCS 6/15, eye opening spontaneous w/no tracking movements. No response to deep sternal stimuli. Corneal reflexes, gag reflexes present. Babinski neg. Intermittent twitching of facial muscles. Gaze deviation to left.

Notable Labs & Imaging:
Hematology: Normal

Chemistry: Normal.
1st: LP: lymphocytic pleocytosis, normal glucose and protein.
2nd LP: lymphocytic pleocytosis w/less cells, nl glucose and protein.
Viral PCR (after previous treatment): negative for HSV.

Imaging:
1st CT brain non contrast: normal.
2nd CT brain and MRI: normal.
EEG: diffuse encephalopathy w/no seizure activity.

Anti-NMDA Antibodies: Positive.
Final DX: Anti-NMDA Receptor Encephalitis

Problem Representation: 30yM w/no PMHx and exposure to cement, p/w 2 weeks of HA, AMS and new onset seizures which have progressed to status epilepticus. Course doesn't improve w/ empiric antiviral tx. Has persistent lymphocytic pleocytosis in LP and normal imaging.

Teaching Points (Vale):

- **Altered Mental Status** = **MIST** = **M**etabolic (glucose, thiamine-alcohol consumption) , **I**nfection, **S**tructural, **T**oxin (new medications, withdrawal, alcohol, element exposure from work)
- **Time Course:** Subacute causes = Infections (TB, Fungi), Inflammatory, Antibody-mediated, Neoplasms.
- **Localization?:** Intracranial vs Extracranial cause of AMS -> Imaging, signs of focalization.
- **Who is the patient?:** Prioritize infection (Ex. HSV encephalitis, Neurocysticercosis)
  - Look for exposures (travel history, social history), comorbidities, immune-status.
- **Red Flag Symptoms for Headache: SNOOP** = **S**ystemic symptoms (Ex. Fever), **N**eurologic symptoms, **O**nset new or changed, **O**nset in thunder-clap presentation, **P**apilledema, **P**ulsatile tinnitus, **P**ositional provocation, **P**recipitated by exercise.
- First onset seizure in older people we should prioritize stroke.
- EEG is indicated in patients with recurrent seizures or status epilepticus.
- Always check BMP looking for hyponatremia, hypoglycemia -> rapid and life-saving tx (Na 3% or HCO3)
- **Lymphocytic pleocytosis** -> Inflammatory etiology (Infection (viral/TB/fungi/parasites infection) vs Non-infectious (autoimmune, malignancy). Normal glucose and protein -> bacterial etiology less likely.
- No clinical response to tx, but less cells on LP -> Clinical improvement > labs.
- **Autoimmune encephalitis:** anti-NMDA (most common), Sarcoid, Lupus, Sjogren's.