03/09/21 Neuro Morning Report with @CPSolvers

Case Presenter: *Reshon Hadmon* ***Case Discussants***: *James Plumb and Jorge Patino*

CC: Abnormal movement

HPI: 71 M referred to hospital for abnormal shaking for 1 day and generalised weakness for 1 day. History given by nurse as patient has a speech impairment since childhood.

History of shaking previously, occurred overnight, increased in intensity, present at rest < physical activity, upper limbs>>, not controlled, lasts 5 min, intensity decreases then increases after 15 min, aggravated by movement, relieved by medication

-2 episodes of vomiting (no blood), increased urinary frequency, episode of fever overnight, 3 consecutive readings low blood pressure

PMH:
HTN Dx 19 years ago

Tremor Dx 20 years ago

Meds:
Lisinopril
Benztropine

Fam Hx:
Nothing significant

Soc Hx:
Nothing significant

Health-Related Behaviors:
Nothing significant

Allergies:
No known allergies

Vitals: **T**: 96 F **HR**: 96 **BP**: 110/60 → 130/70 **RR**: 22 **SpO_2**: 99% RA

Exam:

Systemic

Neuro

- **Mental Status:** Alert, oriented, cooperative
- **Cranial Nerves:** Intact
- **Motor:** Strength 5/5 in all muscle groups, tone - rigid after 10 min; Bilateral upper limb w/ left leg tremor, rhythmic, prominent at rest, mod-high amplitude, moderate frequency, disappears w/ action
- **Reflexes:** 2+ Reflexes
- **Sensory:** Normal
- **Cerebellar:** finger-nose not elicited due to tremor
- **Gait:** Loss of balance, periodic increase in speed

Notable Labs & Imaging:

Hematology: Within normal limits

Chemistry: Within normal limits
fingerstick Glucose: 85

Hospital: Patient was later found to be on Levodopa and Carbidopa.

Dx: Parkinson's disease

Problem Representation: Elderly male w/ speech impairment and history of tremor on Cogentin and Sinemet p/w acute onset weakness, fever, low blood pressure and an asymmetric, high amplitude, moderate frequency tremor prominent at rest.

Teaching Points (Sukriti): #EndNeurophobia

Investigating the Sx: Localisation x time course

Time course: Sudden→ Acute: vascular, toxic-metabolic → infectious

Weakness: Identify **neurological vs systemic** (asthenia) -- map out the **motor pathway**

Abnormal shaking: **Seizures (greatest morbidity!)** > tremor (Base rate: Parkinson's > medications, cerebellar lesions), twitching ((myoclonus)

Collecting clues:

Framework for approach to **tremor**: **Tremulousness vs weakness -> tremulousness**, **Frequency, Amplitude** (large- cerebellar, small- parkinson's), **Position -** rest, posture, action**, Distribution** (hands, legs, jaw - parkinson's vs side to side head tremor: ET), **Medications** (SSRIs, tacrolimus)

- Parkinson's tremor: **pill rolling tremor(pronation-supination vs flexion extension of ET)**, alleviated by movement, unilateral & asymmetric, postural- re-emergent
- Rubral tremor - **Slow coarse tremor,** Positions: **Rest (resembles Parkinson's)**, posture and **action (resembles cerebellar)**
- Functional tremor - associated w/ psychiatric disorders, abrupt, **inconsistent w/ rest and action, + entrainment test**

Framing the clinical syndrome: Primary neurologic process (meningitis, meningoencephalitis) w/ infectious prodrome vs Systemic illness predisposing to seizure

CRP: Alcohol is a non specific diminisher of (essential) tremor!

Parkinson's: Parkinson's disease (later in life, asymmetric) vs Parkinsonian syndromes vs medication induced