



08/10/21 🎂🎂 Neuro Morning Report with @CPSolvers



Case Presenter: Gabriela Pucci (@gabifpucci) Case Discussants/Cumpleañeros: Gabriel Talledo (@gabrieltalledo) and Valeria Roldan (@valeroldan23)

<p>CC: Diplopia</p> <p>75yF p/w acute diplopia presented suddenly 2 days ago. Son noticed eyes misaligned. Diplopia is binocular, horizontal and gets worse when she looks to the right.</p> <p>No other symptoms: red eye, fever, HA, fatigability.</p>	<p>Vitals: T: HR: BP: RR: SpO₂:</p> <p>Exam:</p> <p>Systemic</p> <p>Neuro</p> <ul style="list-style-type: none"> - Mental Status: - Cranial Nerves: Can't abduct R eye. Horizontal diplopia, worse when looking to right side. No ptosis or fatigability. - Motor: - Reflexes: 1/4 achilles reflexes. 2/4 reflexes elsewhere. - Sensory: Diminished vibration in toes and tibial tuberosity bilaterally and symmetrically. - Cerebellar: - Other: 	<p>Problem Representation: 75yF w/ important CV PMHx p/w acute horizontal diplopia that worsens when looking to the right. PE notable for impaired R eye abduction.</p> <p>Teaching Points (Maria): #EndNeurophobia</p> <ul style="list-style-type: none"> • Diplopia: <u>Monocular</u> (lens misalignment) vs <u>Binocular</u>: cranial nerves extraocular muscles (thyroid disorders: restrictive inferior oblique), neuromuscular junction (MGS: think fatigability!) • Eye Movement: <ul style="list-style-type: none"> - <u>6 Muscles:</u> inferior, superior, lateral, medial rectus, superior oblique (in and down) and inferior oblique (out and up) - <u>3 Cranial Nerves:</u> lateral rectus, 4 superior oblique, 3 - rest + levator palpebrae + parasympathetic to pupil. - Movement to Left: CN6 - lateral rectus abduction and CN3 - medial rectus adduction. Conjugation of both cranial nerves: Medial Longitudinal Fasciculus (Lesion - INO. Affected commonly in MS). - <u>Conjugate Gaze:</u> can't cause diplopia as it causes both eyes to move to the same direction. <ul style="list-style-type: none"> - PPRF in brainstem: Activates ipsilateral CN6. - Frontal Eye Field: Cortical Field controls contralateral eye movement. • Collecting clues: <ul style="list-style-type: none"> - Sudden: Vascular etiologies: stroke, DM CN3,4,6 palsy (microinfarcts, CN6 most common; with CN3 pupil not affected. Pupillomotor fibers are external and medial portion of nerve, microinfarcts affect middle of nerve affecting only motor fibers). - Worsening diplopia when looking to the right? <u>Right Lateral Rectus/CN6</u> - problem in abduction; <u>Left Medial Rectus/CN3</u> - problems in adduction (CN3 affects a lot of muscles/pupil/levator palpebrae but you can get partial palsies); <u>MLF- INO</u> (CN6 correctly abducts and CN3 can't adduct), small lesions in brainstem.
<p>PMH: 20y DM. HTN Heart Failure Anemia - B12 (treated 5 months ago) Breast Ca - 10 y ago GERD.</p> <p>Meds:insulin, empagliflozin, atenolol, furosemide, metformin, b12, omeprazole.</p>	<p>Fam Hx: None.</p> <p>Soc Hx:</p> <p>Health Related Behaviors: No alcohol or cigarettes use.</p> <p>Allergies: None.</p>	<p>Notable Labs & Imaging:</p> <p>Hematology:</p> <p>Chemistry: Hb1Ac: 8.8. Infectious serology negatives. Electrolytes normal.</p> <p>Imaging: Brain MRI: No ischemic lesions or other abnormalities.</p> <p>Final Dx: Isolated CN6 Palsy. Sensory neuropathy attributed to DM or B12 deficiency.</p>