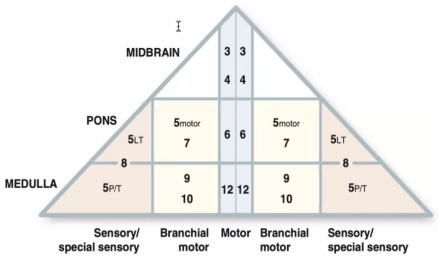
05/21/24 Neuro VMR with @CPSolvers

***"One life, so many dreams" Case Presenter**: Aye Chan Moe Thant(@) **Case Discussants**: Aaron(@AaronLBerkowitz) Andrea(@) Sridhar(@syaddana_neuro)*

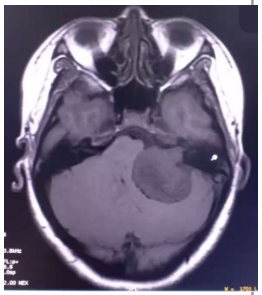
CC: 32 F left facial numbness x 5 days
HPI: Right handed
H/O facial asymmetry - Rx as bells palsy for 1.5 years ago but asymmetry persistent.No facial pain
Facial asymmetry , reduced hearing
Left chin numbness, slurring of speech
Unsteady gait, No swaying toward other side-gradually worsening
Clumsiness on left side.
No weakness, fall, numbness of the body
Denies LOA,LOW
Prev healthy. No running nose, sore throat, vomiting, abdominal pain

PMH: recent tooth extraction
h/o facial asymmetry



Vitals: T: HR: 94 **BP:**120/60 **RR:** SpO2 100%
Exam:
Gen: Well
Systemic Exam: WNL
Neuro: AOx3. Tandem walk impaired.Broad based gait.
CN1,2,3,4,6 : normal. Horizontal nystagmus to left
5-Reduced facial sensation on left, left tongue, masseter weakness
L LMN facial weakness. 8-reduced hearing on left
Motor Exam: normal tone, power reflexes all limbs.
Plantar-flexor
Sensory - normal
Cerebellum: Left(dysdiadochokinesia, heel shin test, ataxia)

Notable Labs & Imaging:
Hematology: Labs: normal
Imaging:
CEMRI:
Left CP angle tumor-?schwannoma
Mass effect on brain stem
MCP, left cerebellum
Mild obstructive hydrocephalus



Dx: Left CP angle tumor.
Underwent surgical excision - HPE schwannoma
Facial palsy, reduced hearing - worsening
Improvement in other symptoms.

Problem Representation:

Teaching Points (Elena): #EndNeurophobia
1. **Understand** the numbness: What does the patient me? Is it weakness or sensory deficits? - *Think about **time course** (static - stroke, progressive - immune mediated processes/mass forming process i.e. abscess) and **localisation** (Cranial Nerve 5 due an issue in the cortex, thalamus, brainstem or more peripheral)*
2. **Subacute numbness**: Vascular vs. neuropathy Less likely stroke - post-viral illness (Bell's palsy - actually weakness), trigeminal neuralgia, migraines, sinus infection, dental processes, demyelinating disorders
3. **Isolated facial numbness** from a central issue is less likely, but more likely an issue of the trigeminal nerve itself (infections, autoimmune, demyelinating)
4. When Bell's Palsy does not improve and other CN get involved as well we have to think of some expanding cerebral lesion
5. **Syndrome of multiple cranial neuropathies**: Lesion in the brain stem, subarachnoid space, lesion in the skull base, in the organ itself (orbit, neck) - look for **groups** (2, 3, 4 midbrain)
6. **Long tracts in the brain stem** make an isolated cranial neuropathy less likely, would affect the lower body as well.
7. Is there a place where all those CN run together? skull base, subarachnoid base
8. **5, 7, 8 + ataxia** (localises to the *cerebellopontine angle*)
9. Causes for cerebellopontine angle lesions (slowly expanding vestibular schwannoma, skull based meningioma)
10. **Nystagmus**: Central vs. peripheral; changing directions, upbeat/downbeat (central), uni-directional + horizontal (peripheral) → our patient has components of both
11. **BRUNS nystagmus**: defined as a combination of peripheral and central nystagmus (localises to a cerebellopontine angle lesion - initially peripheral expanding lesion central)
12. **Schwannoma**: T1 (hypointense lesion), T2 (homogeneously enhancing lesion, almost perfectly circular - *ice cream cone sign*) - meningioma is a little more irregular and heterogenous