03/31/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Sarah Blaine (@sarahkblaine) Case Discussants: Dr. Helen Shi (@) and Gerardo (@gerarlunap)

Scribe (Bayan)

CC: 60M complaining of headache and double vision.

HPI: 10d ago, woke up from sleep by frontal headache unresponsive to OTC meds. Presented to ER and discharged for conservative treatment.
1 day ago, had another frontal headache but w/ double vision worse on right gaze.

Has history of headaches worse at night but w/o double vision, usually responsive to OTC meds.

ROS: unremarkable

PMH:
osteosarcoma and Rt BKA, HTN hyperlipidemia, GERD, occasional headaches

Meds: acetaminophen for headache, omeprazole and cetirizine for GERD, atorvastatin, daily aspirin

Fam Hx: Diabetes, CAD, renal and prostate cancer in his father

Soc Hx: 15.6 pack/year smoking history. No alcohol consumption. Retired police officer.

Health-Related Behaviors:

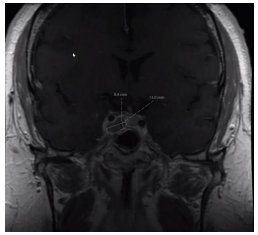
Allergies: NKDA

Vitals: T: 36.7C (98.1F) **BP:** 184/78 **RR:** 15 **HR**: 63 **Sat:** 95%
Exam:
Gen: not in acute distress
HEENT: normal
Neuro: AOx4. severe aBduction deficit in right eye. Otherwise unremarkable (no aphasia, reflexes, motor and sensory all intact).
Ophthalmology exam and Fundoscopy: nl
MSK: right BKA, bilateral LE edema.

Notable Labs & Imaging:
Hematology: WBC: 9.4 Hgb: 14 Plt: 270 Hct: 33.1 MCV: 93.1

Chemistry
Na: 137 K: 4 Cl: Cr: BUN: 17 Mg: nl Glu: 157 HbA1C:6.2
CRP: 4 ESR: 36 AST: 26 ALT: 34 ALP: 81
Low B12 and Cortisol (1.1). prolactin nl. Pt and INR nl
Thyroid panel nl. GH nl. Total and free testosterone low.

Imaging:
Non contrast CT: unremarkable
CTA with contrast: no large vessel occlusion. Fenestration of A1 segment. Evidence of atherosclerotic disease w/ narrowing of MCA and distal PCA.
CT face without contrast: Sellar hemorrhage
MRI Brain: see image



Surgical pathology: pituitary adenoma

Dx pituitary tumour and apoplexy w/ sphenoid extension.

Problem Representation: 60M k/c of osteosarcoma with Rt BKA presenting with frontal headaches that wake him from sleep now complicated by double vision.

Teaching Points (Ethan):
/ Headache: onset, intensity, associated symptoms
/ Diplopia: first differentiate binocular vs monocular.
Monocular: usually refractive error, or cortical diplopia
Binocular (when cover the eye the diplopia will disappear): means ocular misalignment (may be exam negative) -> CN III/IV/VI, NMJ, ocular muscle
/ Osteosarcoma hx -> consider leptomeningeal metastasis and elevated ICP
/ Important to do a detailed neurologic exam
/ Family hx of cancer: consider genetic conditions that predispose to cancers (eg, li-Fraumeni)
/ Facial nucleus (in dorsal pons): CN6 + CN7
/ Course of CN6 -> lateral rectus muscle: pons -> Dorello's canal (in subarachnoid space) -> cavernous sinus (thrombus, fistula, granulomatous inflammation, ICA problem, tumor, pituitary tumor invasion) -> superior orbital fissure, then innervate the muscle
/ Fundoscopy (-): less likely to be IICP
/ CT: look for obvious structural problem (hydrocephalus, hemorrhage, space-occupying lesion, stroke)

/ MRI: important to include a venogram to not miss cavernous sinus problem
/ Low cortisol -> consider primary/secondary adrenal insufficiency -> cavernous sinus is just adjacent to the pituitary gland. A detail visual field exam may reveal bitemporal hemianopia if localization is pituitary gland.