11/30/23 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Seyma (@seymss15) **Case Discussants**: Rabih (@rabihmgeha) and Francisco (franciscobalex)*

CC: Blurry vision and eye pain

HPI: 28F presenting with two weeks of eye problems. She was fine two weeks ago when she started to use contact lenses. Several days later she started with right eye pain, did a trial of topical steroids and antibiotics, symptoms didn't get better. Worsening right eye pain w/ decreased vision, redness and difficulty w/ eye movements.

PMH: HTN, Anxiety
No surgeries.

Meds: None.

Fam Hx: Non contributory

Soc Hx:

Health-Related Behaviors:

Allergies: Penicillin

Vitals: T: Afebrile **HR:** 93 **BP:** 151x95 **RR: 16** **SpO2**: 100% RA
Exam:
Gen: NAD, Awake alert oriented
HEENT: R-eye: Ptosis and proptosis, complete ophthalmoplegia, decreased visual acuity, only superonasal quadrant is intact. Left eye is normal.
CV: wnl **Pulm:** wnl **Abd:** wnl **Neuro:** wnl
Extremities/skin:

Notable Labs & Imaging:
Hematology:
WBC: 12.400 Hgb: 12,9 MCV 84 MCH 27 Plt: 210.000
Chemistry:
Na:wnl K: wnl glucose: wnl
AST/ALT:wnl ESR 17 B-HCG:negative
HIV/syphilis: negative; ANA, anti-dsDNA, complements:normal
Extensive inf and inflammatory w/u: LP→ largely normal
Imaging:
Head CT: no acute intracranial pathology, thickness of the right optic nerve
MRI head + orbit w/o contrast: unilateral papilledema, optic n swelling, perineuritis, R-superior ophthalmic vein distended mildly, significant proptosis. No appreciable cavernous sinus filling defect, or thrombosis.
MRA head + carotids: No arterial occlusion, aneurysms or stenosis.
CT abdomen & pelvis w/ IV contrast: complex cystic lesion in the right ovary//
Ovary US: simple R-ovarian cyst.

Evolution: She was started on methylprednisolone + ceftriaxone + vancomycin + metronidazole - decompressive surgery was planned, but symptoms improved significantly after started meds. Discharged for outpatient follow up. She was seeing by ophtalmo + neuro to final diagnosis. Etiology is still undetermined, some are labs pending.

Dx: **Orbital apex syndrome**

Problem Representation: 28 yoF presenting with right eye pain, redness, decreased vision and difficult eye movement after starting to use contact lenses. Symptoms are unresponsive to topical steroids and abx.

Teaching Points (Reshma):
- subacute eye disease (pain|redness|decreased vision|contact lenses)
- red eye: keratitis (bacteria|viral|fungal), uveitis (ant|posterior), conjunctivitis. Causes could be from the globe(cornea and uvea), orbit or ocular adnexal structures
- contact lenses- usually pseudomonas related corneal diseases
- pain with eye movement: many ocular abn, including globe and orbit
- 28y/o with hypertension: could be primary idiopathic
- eye pain without redness: cluster headaches and migraine (unlikely)
- **Reduction in vision is an important vital sign abnormality**
- Proptosis: globe exiting the orbit
- ptosis: abnormal position of the eyelid with respect to the iris (look for how much of the iris is covered by the eyelid)
- Ophthalmoplegia - neurologic (CN 3,4,6) and structural abnormalities(orbit, adnexal)
- ocular weakness accompanied by local orbital signs - localized orbital disease (orbital adnexa like muscle or gland or mass/abscess from the orbit or periorbital structures like sinuses)
- CT vs MRI of the orbit to observe structures
- Check for the presence of pulsations in the proptotic eye
- Carotid cavernous fistula - flow rate difference between carotid artery and cavernous sinus.
- Image negative orbital disease: is the imaging truly underwhelming (fistula or infiltrating leukemias) or falsely negative (Tolusa Hunt syndrome - sarcoidosis of the orbit without systemic symptoms)
- Inflammation that is causing the pressure effects (inflammatory pseudotumor cerebri)
- superior orbital fissure and optic canal included in the orbital apex