Case Report

Abstract: This case illustrates the importance of exhausting the differential list before final diagnosis. This patient was diagnosed with a compressing mucocele after the patient’s presenting symptoms and non-characteristic visual field prompted imaging studies.

I. Case History
- 63 YOWM
- Chief complaint: diplopia, mild decreased vision right eye
- Ocular, medical history: HTN, refractive error
- Medications: Lisinopril
- Other salient information: LEE 2.5 yrs prior

II. Pertinent findings
- Clinical: tr apd OD; restriction and diplopia worse on left gaze
- Physical: sectoral optic nerve pallor v. cupping OD
- Laboratory studies: none pertinent
- Radiology studies: MRI brain and orbits w/ and w/out contrast: showed ethmoidal mucocele compressing nasal optic nerve OD
- Others: OCT rNFL shows thinning OD; WNL OS
**Images for poster: OCT OU, initial and final Visual fields OU, MRI images and report

III. Differential diagnosis
- Primary/leading: open angle glaucoma OD > OS
- Others: Compressive lesion; old AION

IV. Diagnosis and discussion
- Mucocele: epithelial lined mucous-containing sac that fills a paranasal sinus
- Pathophysiology: normal sinus drainage becomes blocked (trauma, surgery, chronic sinusitis, tumor); but, epithelium continues secretions \( \rightarrow \) expansion \( \rightarrow \) bone death \( \rightarrow \) inflammation \( \rightarrow \) bone resorption
- Not only capable of expansion & bone resorption, but also new bone formation
- Slowly growing
- Expansion exerts pressure on surrounding structures \( \rightarrow \) headache, facial pressure, facial tenderness, ocular/neurologic problems including restriction and compressive neuropathy
- If infectious \( = \) pyomucocele \( \rightarrow \) risk of infection & death
V. Treatment, management
-Surgical removal of cystic mucocele without complications; returns to eye clinic 1.5 yrs later; significant improvement of visual field; no longer has diplopia
-surgery is necessary to remove cyst, decompress sinus, and often reconstruct affected area
-depending on duration of compression, visual recovery can occur, but does not in every case

VI. Conclusion
-We cannot assume that every patient with thinning on OCT and visual field defects has glaucoma or AION; especially when the visual field loss does not match ONH appearance and IOP level. We must explore further differentials.
-related clinical pearl: recalcitrant sinusitis that doesn’t resolve with antibiotics\(\rightarrow\)CT scan/eval by ENT (r/o drainage block)

References


