Abstract:

This case report will emphasize the utilization of various diagnostic testing confirming optic nerve drusen and the benefit of treatment in a patient with ocular hypertension and crowded discs to minimize risk of potential complications.

I. Case History

Chief Complaint: A 74 year old white male presents as a new patient referral as a possible glaucoma suspect due to visual field defects and a history of “higher pressure in my eyes.” No current glaucoma treatment and no family history of glaucoma. No transient visual obscurations.

Ocular history: Cataract extraction OU – 2008; YAG Capsulotomy OU - 2009

Medical history: Type II Diabetes

Medications: Metformin

Last Hemoglobin A1C 6.2% on 6/6/14.

II. Pertinent Clinical Findings

BCVA: 20/20 OD, 20/25+ OS

Pupils: PERRLA, No APD OD, OS

Confrontation Fields: Slight inferior nasal constriction OD, inferior nasal and inferior temporal constriction left eye

Biomicroscopy:

IOP: 27 OD, 37 OS @3:10pm; 26 OD, 37 OS @3:12pm

Anterior Segment: Unremarkable OU

PCIOL well-centered, open posterior capsule OD, OS
Optic Nerve: elevated bumpy appearance without obscuration of vessels; mild peripapillary atrophy, slight temporal ONH tilt OS>OD. Cup/Disc: 0.10 OD, 0.05-0.10 OS.

**Gonioscopy:** Flat iris approach, 1-2+ TM pigment, open to ciliary body 360 OU

**RNFL OCT:**

OD: Average thickness 71 microns. Thinning superior and superior temporal sectors. Correlating with optic nerve head drusen.

OS: Average thickness 66 microns. Thinning superior, superior/temporal, inferior/temporal. Correlating with location of optic nerve drusen left>right eye and slight inferior confrontation field constriction.

**Fundus Autofluorescence:** Round Hyperfluorescent areas of optic nerve OU

**Stereo Optic Nerve Photos**

**Humphrey Visual Field**

**III. Differential Diagnosis**

Papilledema

Pseudopapilledema

Intracranial Hypertension

Tilted Disc

Myelinated NFL

Crowded Disc associated with hyperopia

**IV. Diagnosis/Discussion**

Etiology & Associations

Anatomy & Pathophysiology
Common Diagnostic Findings: Visual Field, OCT, Fundus Autofluorescence

Other Possible Diagnostic Procedures: CT Scan, IVFA, B-Scan

Complications: Visual Field loss, Flame hemorrhages, NAION, CRAO, Peripapillary neovascular membrane

V. Management

Initiate latanoprost one drop every evening both eyes.

Optic disc drusen management options: monitor, potential benefit of IOP lowering medications (current studies), laser therapy for complications (peripapillary neovascular net)

VI. Conclusion

Clinical Pearls

 +/- obscured vessels

 +/- anomalous vasculature

 +/- hyperemia

 +/- edema

 +/- hemorrhages

 +/- blurred disc margins

 +/- laterality

 +/- APD

 +/- SVP

 - nature of the visual field defect

Utilization of Diagnostic equipment

Bibliography/Sources