

Open Angle Glaucoma

Elevated episcleral pressure

Causes include:

- Carotid-cavernous fistula
- Dural sinus fistula
- Graves orbitopathy
- Idiopathic
- Orbital varix
- Sturge-Weber
- Superior vena cava syndrome
- Retrobulbar tumor

Key Facts

- Uncommon form of glaucoma
- Unilateral (more common) or bilateral
- Diagnosing cause of increased episcleral pressure is key

Mechanism

- High IOP due to increased outflow resistance with higher than average episcleral vein pressure (population average episcleral venous pressure is 8-10mm Hg)

Clinical Findings

- Blood visible in schlemm's canal on gonioscopy (Figure 1)
- Dilated and/or tortuous episcleral vessels (Figure 2)
- Glaucomatous optic nerve changes
- Occasionally low grade anterior chamber flare/cell

Ancillary Testing

- Gonioscopy—blood in schlemm's canal is key finding**
- Same as POAG
- Thyroid studies
- Orbital Imaging (B scan, CT, MRI)
- Angiography/MRA

Differential Diagnosis

- POAG
- Conjunctivitis
- Episcleritis
- Inflammatory Glaucoma

Treatment

- Treat underlying cause, if known
- Increased chance of suprachoroidal hemorrhage with incisional surgery
- Responds better to topical therapy targeting aqueous production than topical therapy targeting outflow facility

Prognosis

- Good prognosis if discovered early