

Primary Angle-Closure Glaucoma (PACG - Acute)

Primary angle-closure glaucoma (PACG) or acute glaucoma is less common than the chronic form - primary open-angle glaucoma (POAG). It is characterized by a sudden, rapid onset with eye pain and is considered a medical emergency. If treatment is not initiated immediately, total blindness can occur within hours of onset of symptoms.



PLAY PICMONIC

Mechanism

Rapid Increase in IOP

Rapid-rabbit Up-arrow Eye-squeeze

The rapid increase in intraocular pressure is due to a narrowed angle and forward displacement of the iris leading to a reduction in the outflow of aqueous humor. It may also occur in someone with prolonged pupil dilation.

Signs and Symptoms

Rapid Onset

Rapid-rabbit On-switch

Unlike POAG (open-angle glaucoma), PACG has a sudden and rapid onset.

Pain

Pain-bolt

Acute angle-closure glaucoma includes a sudden and extremely painful sensation in or around the eye, which radiates over the face causing headache and brow pain.

Blurred Vision

Blurry Eye

Blurred vision is a common symptom, as well as decreased light perception.

Halos Around Lights

Halo on Lamp

Patients often complain of seeing colored halos around lights.

Nausea and Vomiting

Nausea and Vomiting

Patients may experience nausea and vomiting.

IOP over 30 mm Hg

[Eye-squeezed by \(30\) Dirty-bum](#)

IOP readings in acute angle-closure glaucoma are typically over 30 mm Hg and may be as high as 50 mm Hg.

Considerations

Drug Therapy

[Med-bottle](#)

Drug therapy includes the use of miotics, prostaglandin agonists, IV mannitol, or glycerin liquid (Ophthalgan) in order to lower IOP.

Surgery

[Surgeon](#)

For long term treatment and to prevent recurrent episodes, a laser peripheral iridotomy or surgical iridectomy may be indicated. This opens a new channel in the iris to allow for aqueous humor to flow through. The procedure can also be performed in the other eye as a preventative measure.