

# Aqueous misdirection in an anterior chamber intraocular lens eye with underlying primary angle closure glaucoma: a diagnostic challenge

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## ABSTRACT

This case illustrated a diagnostic challenge between pupillary block or an aqueous misdirection in an anterior chamber intraocular lens (ACIOL) eye with underlying primary angle closure glaucoma (PACG). A 65-year-old Indian gentleman presented with a left eye blurring of vision for 2 weeks. Examination revealed visual acuity of perception of light in the left eye with intraocular pressure (IOP) of 70 mmHg. Left eye cornea was hazy with shallow anterior chamber (AC) and iridocorneal touch over the periphery. The pupil was mid-dilated, a small peripheral iridotomy (PI) was seen at 1 o'clock. ACIOL was stable but a posterior synechiae was adherent to the edge of the optic. Initial diagnosis of pupillary block due to small PI treated with laser PI to enlarged it. Post PI laser, IOP was still high at 60 mmHg with more shallowing of AC. Diagnosis of aqueous misdirection was made and proceeded with anterior chamber reformation, pars plana vitrectomy, surgical PI, and air tamponade. Post-operatively vision was hand movement with IOP of 10 mmHg. The AC was formed, ACIOL stable with patent PI at 10 o'clock and fundus showed optic disc pale of 0.9 cupping. Aqueous misdirection estimated incidence ranging from 0.06% to 2% in post-procedural contexts. Suspensions should be raised when the PI was patent, but IOP was high with flat AC. Early intervention with medical management of controlling intraocular pressure, topical cycloplegic and YAG hyloidectomy before proceeding to pars plana vitrectomy ensure reversal of flow and save vision.