

# **ACUTE INTRAOPERATIVE ROCKHARD EYE SYNDROME – REPORT OF A NEWLY RECOGNISED SYNDROME AND ITS MANAGEMENT IN SIX CASES**

## **Purpose:**

To describe a newly recognised entity, the Acute Intraoperative Rockhard Eye Syndrome (AIRES), and its management in six cases. AIRES is characterised by anterior chamber (AC) shallowing and an acute, marked intraocular pressure (IOP) increase during phacoemulsification cataract surgery, precluding further surgery, but with no evidence of choroidal haemorrhage.

## **Method:**

Prospective, consecutive, non-comparative, interventional case series of phacoemulsification cataract surgery. Management was with emergent intraoperative pars plana needle aspiration (PPNA) of retrolenticular fluid with a 23-gauge needle attached to a 3 mL syringe. Follow-up was at 1 day, 1 week and 1 month. Resolution of AIRES, posterior segment integrity, and corrected distance visual acuity (CDVA) were documented.

## **Results:**

Six patients with AIRES were identified in 298 cases. Mean age was 81 years; all were female with nuclear cataracts of grade 2–4 (LOCS II). In each case, PPNA successfully and immediately normalised AC depth and IOP, and completion of surgery proceeded uneventfully. Follow-up was 100%. Postoperative funduscopy revealed transient mild vitreous haemorrhage in one patient; new posterior vitreous detachment in one patient; and localised vitreous syneresis in three patients. CDVA in 5 of 6 patients was 6/4 at 1 month.

## **Conclusion:**

AIRES presents with AC shallowing and marked IOP elevation during cataract surgery, occurring in 2% of cases in this series. PPNA effectively resolved each case immediately and was not associated with any significant complications.