

Cataract Complications

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PATIENT PRESENTATION

80 year old female with a past medical history of hypertension, usually controlled with antihypertensives to 135 systolic, presented to her ophthalmologist for cataract surgery. She was anxious about the blood pressure and her preprocedural BP was 200, so the procedure was delayed. Despite her pressures normalizing before initiation of the procedure, intraoperatively her BP spiked to 230 systolic and she sustained some retinal hemorrhage and rise of intraocular pressure to about 50mmHg. The eye was decompressed using acetazolamide and mannitol. She presented to AOMC hours later with progressive vision loss.

IMAGING



Non-contrast CT images in the axial, sagittal, and coronal (right): demonstrate post cataract surgery changes with hemorrhage in the right globe vitreous chamber. Hounsfield units of 67 suggest acute blood. There is evidence of complete retinal detachment.



DISCUSSION

Retinal detachments can be complicated by hemorrhage. Predisposing factors are increased traction on the retina, such as with elevated intraocular pressures or trauma, or preexisting retinal lesions. This presents with painless vision loss with possible floaters or shadows over the field of vision. Ocular pain is associated with traumatic causes of retinal detachment although the pain is likely not due to the detachment itself. This entity is usually diagnosed on slit lamp physical examination. Although if an underlying lesion is suspected as the cause, slit lamp is unlikely to evaluate it.

Ultrasound is more useful in being able to discern the presence of vitreous hemorrhage and detect some of the causes, such as retinal detachment (which can be secondary to a tear in the weak area of the retina itself), malignancy, or trauma. Ultrasound findings of vitreous hemorrhage include floating echogenic foci in the vitreous that move with eye movement. Sub-acutely blood of the vitreous hemorrhage can organize into echogenic membranous structures. These membranes become less mobile as the age of the clot progresses.

CT demonstrates high attenuating material in the vitreous similar to the ultrasound. However, CT can detect subarachnoid hemorrhage as vitreous hemorrhage complicates subarachnoid hemorrhage in about 20% of cases, so called terson syndrome.

This case in particular demonstrates a rare but serious complication of phacoemulsification, aka cataract surgery.

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