



BMH Med. J. 2018;5(4):116-118 **Case Report**

## Case of Spontaneous Total Hyphema – A Diagnostic Dilemma

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### Abstract

Anterior chamber haemorrhage is usually associated with ocular trauma. Spontaneous hyphema is relatively uncommon and it may occur from rubeosis iridis, rarely with iris melanoma, retinoblastoma, juvenile xanthogranuloma, metastatic lesions, myotonic dystrophy, herpes zoster keratouveitis and anterior chamber intra ocular Lens. It has also been noted in association with leukemia, haemophilia, von Willebrand disease, sickle cell anemia, malignant lymphoma and in association with the use of substances that alter platelet or thrombin function. We report a case of spontaneous total hyphema in an elderly patient, which created lot of diagnostic difficulties.

**Key words:** Spontaneous total hyphema, neovascularisation of iris, neovascular glaucoma, ocular ischaemia

### Case Report

Elderly male presented with painless gradual onset of defective vision in left eye of 2 months duration which rapidly progressed over the last 2weeks. There was no history of any ocular injury, ocular surgery, coloured halos, flashes or floaters. No h/o recent weight loss, bleeding manifestations and was not on anticoagulants. There was past history of treatment for pulmonary tuberculosis 20 years back. General and systemic examination were within normal limits.



Figure 1: Total hyphema at presentation

On ocular examination his best corrected visual acuity in right eye was 6/36 and left eye perception of light, projection of rays were inaccurate. Right eye pupillary reactions both direct and consensual normal and grade 2 nuclear sclerosis. Left eye diffuse corneal edema with total hyphema and rest of the details could not be made out (**Figure 1**). Fundus examination normal in right eye and no view in left eye. Intra ocular pressure (IOP) was 14 in right eye and more than 80 mm of Hg in left eye. He was provisionally diagnosed as a case of spontaneous hyphema with neovascular glaucoma, and possibilities of blood dyscrasias and malignancy were to be ruled out.

His routine blood investigations and coagulation profile were within normal limits. His B-scan ultrasonography ruled out intraocular malignancies, vitreous haemorrhage and retinal detachment. Sickling test and peripheral smear were also within normal limits. His USG abdomen, CT-brain, carotid Doppler and cardiology evaluation were within normal limits. Chest X-ray showed mediastinal widening and was advised HRCT of thorax by chest physician, but he was not willing for that.

Patient was treated symptomatically with oral acetazolamide, topical antiglaucoma medications, atropine eye ointment, topical steroids. During his course of inpatient treatment, corneal edema subsided, IOP was controlled but total hyphema persisted. As there was inaccurate projection of light rays, IOP was controlled and patient was not willing, anterior chamber wash was deferred and he was discharged at request.



**Figure 2:** Blood clot in anterior chamber at 4 months



**Figure 3:** Florid neovascularisation of iris seen at 4 months

Patient was lost for follow up, and 4 months later, he reported to our department with normal HRCT thorax report. There was 1mm blood clot in anterior chamber and we could see florid neovascularisation of iris and angle (**Figure 2, 3**). Fundus view was limited due to cataract and we could visualize few retinal haemorrhages, IOP was under control with topical medication which he was continuing by himself. After 4 months of diagnostic dilemma, it was confirmed as neovascular glaucoma with spontaneous total hyphema secondary to ischaemic vascular lesions of retina.

### Discussion

A spontaneous hyphema, often confused with a traumatic hyphema, is commonly secondary to iris neovascularization, ocular neoplasms, uveitis, vascular anomalies and juvenile xanthogranuloma [1,2] in children. While spontaneous hyphema is well documented in those on anticoagulants like warfarin [3,4] it is rarely reported with iris vascular tufts [5,6], and in patients with left ventricular assisted devices (LVAD) [7]. Spontaneous hyphema related to pseudophakic uveitis-glaucoma-hyphema syndrome [8], even with a posterior chamber intra ocular lens, has been reported with abnormal iris vascularity, zonular laxity, and anteriorly rotated ciliary processes in plateau iris configuration. Our patient was not pseudophakic and was not on anticoagulants and never had uveitis. Extensive investigations could have been avoided if there was early absorption of hyphema and visualization of iris, angle and fundus details.

### Conclusion

Traumatic total hyphema is very common in Ophthalmology casualty, but spontaneous total hyphema is rare. In cases of spontaneous hyphema, we have to rule out malignancy and blood dyscrasias at the earliest.

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