



## A Rare Case of Hyphema in Fuchs Heterochromic Iridocyclitis After Peri-bulbar Block for Cataract Surgery

Sumit Malik<sup>1</sup>, Sumita Sethi<sup>2</sup>

<sup>1,2</sup>Department of Ophthalmology, BPS GMC for women, Khanpur Kalan, Sonapat, Haryana, India

**ABSTRACT:** We report a case of 47 year old male patient with Fuchs heterochromic iridocyclitis and cataract in left eye who developed hyphema after peri-bulbar block for cataract surgery. The patient developed Amsler like Sign. It appeared few minutes after Peri-bulbar block following digital massage before any instrumentation of the globe. Surgery was post-poned to rule out globe perforation or any other pathology for Anterior Chamber bleed. All possible causes were ruled out and patient was eventually taken up for Cataract Surgery which was uneventful without any intra-op or post-op complications.

**KEYWORDS:** Amsler Sign; Fuchs heterochromic Iridocycliti; Hyphema; Peri-bulbar block

### INTRODUCTION

Fuch's heterochromic uveitis (FHU) is a classic triad of iris heterochromia; cataract, usually posterior subcapsular; and uveitis, usually unilateral, anterior and chronic<sup>[1]</sup>. Patients with chronic FHU often remain asymptomatic and usually do not present to the ophthalmologist until significant cataract develops leading to decreased vision. We report a case of FHU with very mild heterochromia who developed hyphema pre-operatively at the time of peribulbar block and was eventually well managed.

### CASE REPORT

A 38-year-old male presented with decreased vision in left eye (OS) for the last 6 months; there were no other associated ocular complaints. On ocular examination OS, visual acuity was perception of light in all four retinal quadrants, gonioscopy and pupillary reactions were normal and on dilated slit lamp biomicroscopy, there were diffuse stellate keratic precipitates (figure-1), very mild hypochromic heterochromia of iris along with total cataract; Ultrasonography B-scan and intraocular pressures were normal. Left exotropia of 60PD was noted, patient however was not aware of his squint; ocular movements were free in all nine gazes. Right eye (OD) visual acuity was 6/6 on Snellen's chart and ocular examination was unremarkable. Patient was planned for cataract surgery with posterior chamber IOL implantation under local anaesthesia with a clinical diagnosis of FHU with total cataract OS, after taking written informed consent for guarded visual prognosis. On the day of surgery, patient was given 8ml of peribulbar injection of 2% Lidocaine mixed with 0.75% Bupivacaine. And immediately after digital massage, 2mm hyphema developed along the inferior margins. The globe felt soft; surgery was abandoned to look for possible signs of globe perforation; USG-B scan and IOP done the next day were within normal limits. Hyphema eventually subsided after 4 days and the patient was planned for surgery after two weeks under steroid cover; he was counselled for topical anaesthesia which he refused. Again, after giving peribulbar anaesthesia, the patient developed hyphema (figure-2); surgery was completed with high density cohesive ophthalmic viscoelastic device to manage the intraoperative bleeding and to maintain the anterior chamber. Hyphema was present post-operatively; IOP was within normal limits; topical and systemic steroids were given and hyphema eventually subsided after 2 days. The patient is on regular follow-up and after 6 months, the best corrected visual acuity is 6/9 OS and there are signs of chronic anterior uveitis as present pre-operatively.

### DISCUSSION

Hyphema is a common association of FHU; it has been reported to occur with applanation tonometry, gonioscopy<sup>[2]</sup>, after trivial non-penetrating trauma<sup>[2]</sup>; and in context of cataract surgery, intraoperatively and rarely pre-operatively with peribulbar anaesthesia and digital massage<sup>[3]</sup>. Amsler-Verrey Sign, first described by Dr. Marc Amsler and Dr. Florian Verrey in 1946, is characterized by hyphema after AC paracentesis and is hallmark of FHU<sup>[4]</sup>. However literature regarding the origin of hyphema in FHU is contradictory; on one hand there is evidence for presence of abnormal vasculature within iris stroma and anterior chamber angle,



these abnormal vessels are fragile and likely to bleed following a sudden drop in IOP, which can occur after paracentesis or after peribulbar block and digital massage<sup>[5]</sup>; on the other hand, it is established that more often there is no link between occurrence of hyphema and gonioscopic or histopathological findings in eyes with FHU<sup>[6]</sup>.

In most cases of FHU, progressive iris stromal atrophy leads to heterochromia and visibility of vessels at peripheral iris; however, in our patient there were no signs of iris atrophy or abnormal vessels in angle, the heterochromia was also subtle; the clues to diagnosis were signs of chronic anterior uveitis and cataract disproportionate to age and laterality. Clinical diagnosis in such cases is likely to get missed without a strong suspicion for this often-overlooked syndrome; we agree to Kang M et al. that unilateral cataract in young patients without history of ocular surgery should raise suspicion of FHU<sup>[7]</sup>.

## CONCLUSION

Hyphema after peribulbar block following digital massage in FHU has not been widely reported and is likely to occur even in the absence of fragile vessels on gonioscopy, as in our case. A strong suspicion and careful planning can help in managing pre and intraoperative bleeding thus resulting in an uneventful outcome.

**Conflict of Interest:** Authors state no conflict of interest.

**Informed Consent and Human and Animal Rights:** Informed consent has been obtained from all individuals included in this study.

**Authorization for the use of human subjects:** Ethical approval: The research related to human use complies with all the relevant national regulations, institutional policies, is in accordance with the tenets of the Helsinki Declaration, and has been approved by the Ethics Committee of BPS GMC for women Khanpur kalan.

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Legends:

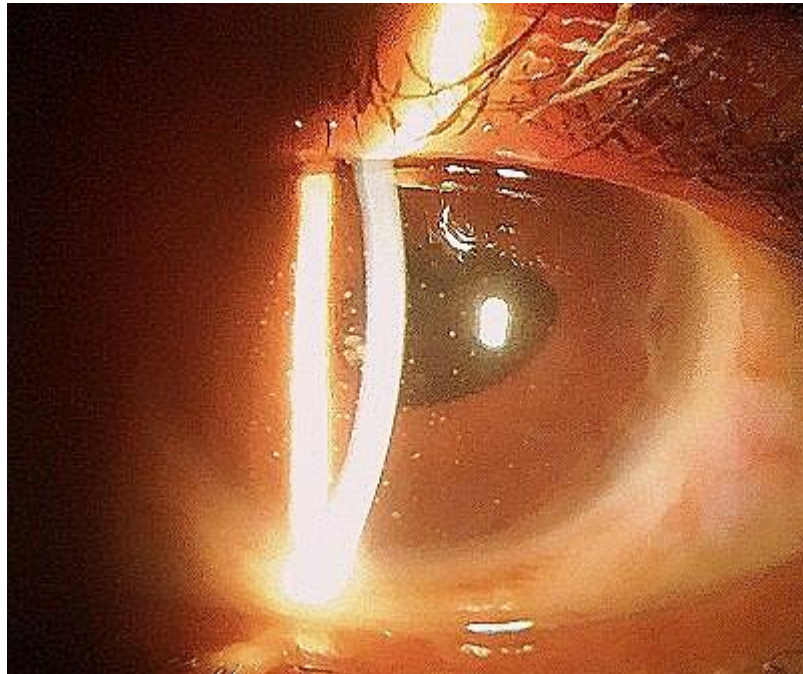


Figure-1: Slit lamp picture of left eye showing diffuse stellate keratic precipitates



Figure-2: Image showing 2mm hyphema along the inferior margins after peri-bulbar block before any instrument touching the globe

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