‘In-the-bag’ hyphaema—a rare complication of posterior chamber lens implantation

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SUMMARY A 72-year-old woman developed a hyphaema on the first postoperative day after a combined trabeculectomy and extracapsular cataract extraction with posterior chamber intraocular lens implantation. On the second day the blood had redistributed to accumulate ‘in the bag’ posterior to the intraocular lens and had formed a fluid level. Postural drainage helped to clear the hyphaema from both locations, with no short-term effect on visual function or the filtering bleb.

Coexisting cataract and glaucoma are frequently managed by combining a trabeculectomy with an extracapsular cataract extraction and posterior chamber lens implantation (triple procedure).^{1–5} A postoperative hyphaema may occur in 6–27% of such cases and usually resolves spontaneously.^{1–5} Rarely the hyphaema may last longer or require surgical intervention.^{4,5} We describe an unusual type of hyphaema which followed a triple procedure.

Case history

A 72-year-old woman with open-angle glaucoma and immature senile cataract was admitted to the hospital for combined trabeculectomy and extracapsular cataract extraction with posterior chamber lens implantation. The glaucoma was poorly controlled on medical therapy. She was on irregular treatment with soluble aspirin for low backache but had not recently taken any.

She underwent an uncomplicated triple procedure in the right eye. The trabeculectomy flap was fashioned at the upper nasal end of the corneoscleral section. An endocapsular technique was used for the cataract extraction, and the lens was placed in the capsular bag.

On the first postoperative day she was found to have a hyphaema filling one-third of the anterior chamber. There was a good filtering bleb and the intraocular pressure was 4 mmHg in the operated eye. The vision was 6/36 and the fundus, though

hazily visible, appeared normal. The hyphaema was managed conservatively with limited bed rest and topical treatment comprising maxidex eye drops (dexamethasone 0.1%, hypromellose 0.5%) and chloromycetin four times a day and cyclopentolate 1% eye drops twice a day to the operated eye. Topical antiglaucoma treatment was continued in the unoperated left eye. Over the next three days, while the anterior chamber hyphaema remained relatively static, blood accumulated posterior to the intraocular lens, in the capsular bag, where it formed a fluid level (Fig. 1), and visual acuity decreased to 2/60. After 10 days’ conservative treatment with no improvement postural drainage was attempted. The patient was nursed in the left lateral position with the foot end of the bed raised. The blood in the anterior chamber cleared in a matter of hours, and the blood behind the lens cleared almost entirely over the next two days. The visual acuity improved to 6/24 unaided at this stage and the intraocular pressure was 8 mmHg. One month later the corrected visual acuity was 6/9, with a good bleb and an intraocular pressure of 10 mmHg. A few red blood cells on the posterior surface of the lens inferiorly, well below the visual axis and posterior synechiae, were the only residua of the hyphaema (Fig. 2).

Discussion

Our case shows several interesting features. Firstly, the capsular bag is an unusual location for a postoperative hyphaema. We have been unable to find a similar report in the literature. An endocapsular

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Fig. 1 Slit-lamp photograph of the right eye showing a hyphaema, the intraocular lens in the capsular bag, and accumulation of blood forming a fluid level behind the lens.

technique with an 'in-the-bag' placement of an intraocular lens leaves a large anterior capsular flap in front of the lens and may more readily predispose to an in-the-bag hyphaema. Blood could thus seep through to accumulate within the capsular bag before the anterior capsular edge adhered to the lens. With conventional extracapsular extraction and planned ciliary sulcus fixation most of the anterior capsule is excised, and this measure, together with the intraocular lens in front, may preclude such an accumulation.

Secondly, conservative management having failed, postural drainage cleared the blood from both locations. The presence of blood in such close proximity to the posterior capsule is of some concern, as it may incite opacification. We waited 10 days before attempting postural drainage, as we felt that prolonged periods in an awkward position would be difficult for an elderly person.

Thirdly, locating the trabeculectomy flap at one end of the cataract incision was of benefit, as the hyphaema could be drained without the risk of red blood cells adhering to the lens surface. Other

Fig. 2 Slit-lamp photograph of the right eye at the first postoperative visit showing posterior synechiae and a granular appearance in a line behind the intraocular lens. The granular appearance is caused by red blood cells adhering to the back of the intraocular lens.

surgeons³ position the trabeculectomy flap in a similar manner, determined by the design of intraocular lens that they use. We find that siting the scleral flap at one end is technically easier, and in this case facilitated the postural drainage.

In summary, we have described a case of an unusual postoperative hyphaema following a triple procedure. Postural drainage is of benefit in the management of hyphaemas, even those occurring in the bag, and is facilitated by positioning the trabeculectomy flap to one side.

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