Unilateral spontaneous hyphaema

D. M. MAGAURAN

St. Paul's Eye Hospital, Liverpool

The purpose of this paper is to describe three patients with unilateral spontaneous hyphaema, in whom a vascular tuft (Cobb, 1968) was responsible; one of them developed secondary glaucoma.

Case reports

Case 1, a man aged 62 years, was first seen at St. Paul's Eye Hospital on June 24, 1964, complaining of blurred vision in the right eye which had been present for several hours.

Examination

The visual acuity was 6/60 unaided in this eye and there was a hyphaema (one-third of the anterior chamber). The intraocular pressure was normal.

Treatment

Rest in bed.

Course

The hyphaema resolved and he was discharged on July 2, 1964, when the corrected visual acuity in the right eye was 6/6.

He was not seen again until December 22, 1971, when he again complained of blurred vision in the right eye.

Examination

The visual acuity was 6/60 unaided and a hyphaema was present. There was corneal oedema and applanation tonometry was 68 mm. Hg.

Treatment

Intensive Pilocarpine 4 per cent. drops to the right eye with acetazolamide 500 mg. intravenously stat. then 250 mg. four times a day.

Course

The hyphaema cleared and he was found to have circumpupillary vascular tufts in both eyes, and an isolated tuft with some attached blood clot at the 12 o'clock position in the right eye. These were confirmed by fluorescein angiography of the anterior segment (Figure, overleaf).

The intraocular pressure gradually came under control and is at present (September, 1972) controlled on Pilocarpine 4 per cent. drops 4 times a day to the right eye. The corrected visual acuity in this eye is 6/6. Apart from the vascular tufts there was no ocular abnormality.

Investigations

General examination was negative and blood studies were normal. Gonioscopy showed no abnormal vessels.

FIGURE Right eye 20 seconds after injection. Fluorescence was concentrated in the tufts and dye was diffusing from the tufts

Case 2, a woman aged 61 years, was seen on February 27, 1967, with a hyphaema of the right eye. She gave a history of two episodes of spontaneous hazy vision in the right eye.

The unaided visual acuity was 6/9 in the right eye and a small hyphaema was present.

Treatment

Rest in bed.

Course

The hyphaema resolved. A vascular tuft was seen at the pupillary margin in the 12 o'clock position, and smaller tufts were seen around the margin of the right pupil. The tufts were confirmed by fluorescein angiography.

When this patient was last seen on October 11, 1971, the unaided visual acuity in the right eye was 6/6 and there had been no recurrence of the hyphaema.

Case 3, a man aged 69 years, was seen on November 3, 1972, complaining of blurred vision in the right eye which had been present for 7 hours. There was no history of trauma and there was no past history of ocular defect.

Examination

The corrected visual acuity was 6/12 in the right eye with a pin hole, and slit-lamp examination showed a fine stream of blood flowing downwards from the pupillary margin at 12 o'clock to form a hyphaema below. Applanation tonometry was 26 mm. Hg in the right eye.

Treatment

Rest.

Course

The right anterior chamber was clear on the following day and on further slit-lamp examination vascular tufts were seen around the pupillary margins of both eyes. There was a large tuft at 12 o'clock in the right eye from which the bleeding had occurred. Applanation tonometry was then 12 mm. Hg.

Investigations

There was no other ocular abnormality. Fluorescein angiography confirmed the presence of vascular tufts in the right eye.

Discussion

Vascular tufts were described by Cobb as small vascular proliferations adjacent to and overlapping the pupillary ruff. He described them in a preliminary report on 44 patients (Cobb, 1968) and later in patients with myotonic dystrophy (Cobb, Shilling, and Chisolm, 1970). Rosen and Lyons (1969) described a case of spontaneous hyphaema with bilateral vascular lesions at the pupillary border which they called microhaemangiomas. These are synonymous with vascular tufts. No case has been described with vascular tufts bleeding and thereby causing a secondary glaucoma.

Vascular tufts apparently arise *de novo* and in the three cases described above were not related to rubeosis, nor had there been evidence of anterior uveitis. Rosen and Lyons (1969) thought that the tufts arose from a capillary net constituting the termination of the radial vessels, and were not related to the minor arterial circle of the iris.

Summary

Three cases are described of spontaneous hyphaema from vascular tufts of the iris.

References

- COBB, B. (1968) *Trans. ophthalm. Soc. U.K.*, **88**, 211
———, SHILLING, J. S., and CHISHOLM, I. H. (1970) *Amer. J. Ophthalm.*, **69**, 573
ROSEN, E., and LYONS, D. (1969) *Ibid.*, **67**, 846