A PECULIAR CASE OF GLAUCOMA

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Dr. A. Fuchs's remarks on angiectasia, published in this number, induce us briefly to record the notes of a peculiar type of chronic glaucoma which has been under our care since 1910.

Mr. L. C., aged 48 years, consulted one of us (E.E.H.) in June, 1910. His vision was as follows:

R. 6/24 + 2.0 D. cyl. $90^\circ = 6/6$
L. 6/36 + 1.75D. cyl. $90^\circ = 6/6$

The episcleral veins, especially in the left eye showed marked dilatation; the pupils were equal and active, the tension was normal, possibly fuller in the left eye than in the right; no scotoma was present, nor was there any enlargement of the blind-spot; physiological cups were noted, there was no pulsation of the vessels in the fundus, and the fields for white were full. Glasses were ordered for work. He was kept under observation, being seen in November, 1910; June, 1913; and April, 1918; on each of these occasions no change was found in his condition.

In September, 1923, he was seen for the first time by R.R.J. He was then aged 59 years. His vision, with glasses, was:

R. 6/9; L. 6/6 part, and J.1. with difficulty in each eye with his correction. The following result was obtained:

R. + 0.5 D. sph. + 2.75D. cyl. $85^\circ = 6/6$
L. + 0.25D. sph. + 2.0 D. cyl. $90^\circ = 6/6 + 2.5$ D. sph. added = J.1.

A note was made that the media were clear and that the physiological cup in the left eye was larger than that in the right. So far as can be remembered the fields were not taken at this visit.

On April 7, 1925, he returned with the complaint that he felt that his right eye was doing all the work; he had been aware of this difference for the past six months. He had had no pain, no halos had been observed, but he said that he had had a severe shock in the previous August, by the sudden death of his only son. The left eye was congested, the pupils were equal and active, the tension of the left was certainly full. His vision was as follows:

R. ß. glass = 6/5 and J.1.
L. ß. glass = 6/5 and J.1.

The cup in the left disc was now pathological, reaching to the edge of the disc in the upper part, the cup itself was very white,
Left eye. Cupped disc showing dilated tortuous vessels after operation.
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Left eye. Field for white. April 9, 1925.

Right and left blind spots. 20 mm. circle for all. Scotoma below fixation point belongs to left eye.
but the rest of the disc was of fairly good colour; the upper vessels were tortuous, dilated, and crowded together at the upper margin of the disc in a very peculiar manner. The field for white showed a slight general contraction, and he complained that there was a dark patch below what he was looking at. He was ordered eserine, and returned two days later in order that the blind-spot and scotoma might be charted. His pupil was at this time pin-point. Copies of the blind-spots and scotoma, taken on the tangent screen at a metre's distance, are appended.

A month later he reported that he had observed no change. At the end of May he saw Mr. Lawford, who kindly wrote and confirmed the diagnosis. Mr. Lawford wrote to say that he found a distinct rise of tension, and that he thought that the crowding together of the vessels at the upper margin of the disc indicated a long period of raised pressure. It was his opinion that an operation would be necessary in the near future, but he did not consider its performance a matter of extreme urgency, and thought that Mr. C. might have it done in August to suit his business arrangements.

On August 8 he saw both of us. He said he was not happy about his left eye; he had noticed nothing definite, no halo, and only an occasional ache, but he was not happy. The tension was full, the pupil small, the appearance of the fundus unchanged, but the field was worse, and the scotoma had increased. Charts of the field at this date and of the upper margin of the scotoma are appended.

He came into St. George's Hospital, and the eye was trephined under general anaesthesia on August 15. An attempt was made to do the operation under cocaine, but as he felt the conjunctival incision, it was thought best to have him completely anaesthetized. No hitch occurred at the operation, a knuckle of iris protruded and was excised, and the flap was secured by a single stitch. He left hospital on August 27, and reported progress on September 22. He complained of some aching of the eye and the tension at first touch seemed full, but was reduced by massage satisfactorily. His vision was as follows:

L.V. č. glass 6/18 with \(-1.25\text{D. sph. } + 2.75\text{D. cyl. }_90^\circ\) = 6/5 with \(+1.5\text{D. sph. } + 2.75\text{D. cyl. }_90^\circ\) = J.1.

There was a good cushion of oedematous conjunctiva at the site of the trephine hole, and the vessels in the fundus did not appear to be quite so tortuous as before the operation. The field showed a very marked deterioration. No copy of the field taken at this date has been preserved but a chart of that taken later in the year is appended to show the difference.
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Left eye. Showing blind spot and upper margin of paracentral scotoma. August 8, 1925.

Left eye. Field for white. August 8, 1925.
In view of the full tension he was advised to use eserine once daily; this he did and the eye kept in statu quo; by August, 1926, he had shown signs of irritation and pilocarpine was substituted. At this date the vision of the left eye was 6/5 part and J.1.; the field as before. Seen in August, 1927, he thought his eye was slowly getting worse, but his vision with correction was still 6/6 and J.1. and the field showed no marked alteration. It might be added that the eye was distinctly less angry looking while he used the miotic and that the right eye, except for a single dilated episcleral vessel, which has been noticeable all the time, shows no sign of glaucoma; the field is full, the tension, to the finger, normal and no enlargement of the blind-spot can be detected.

The illustrations by Theodore Hamblin show the vascular dilatation in the front of the eye, and the state of the disc and vessels at the present time.