The slit-lamp indicates clearly the reason for failure to remove the cyst without the iris; even on the roof the connection is close, and though it is impossible to see the true wall of the cyst except on the roof, yet it must undoubtedly extend all over the back and front.

In spite of my first failure I think that extensive rupture of the cyst wall, either by free dissection or by the removal of a part of the cyst roof would be a better treatment than attempts at total removal. With a more complete idea of the structure of the cysts, such as one gains from examination with the slit-lamp, it would seem impossible to remove the whole without a very extensive operation, and perhaps not even then. How far these cysts do any harm is not clear. They grow slowly, and sometimes at all events rupture spontaneously. I have not been able to find records of the subsequent histories of the recorded cases, and it would seem possible that some returned slowly without causing symptoms.

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CYST OF THE IRIS

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T., Hindu female, aged 20 years, came to Hospital on July 31, 1924, complaining of pain and dimness of vision in the left eye. On inquiry it appeared that she had a defect of sight with nystagmus from childhood. Twenty days before attending she sustained an injury, with the finger nail, in the left eye, which was attended by slight bleeding. The vision of the left eye was fingers at 4 metres, not improved with lenses; that of the right eye 6/60, with a plus 4.5 sph.=6/36, no improvement with cylinders. On inspection of the left eye there appeared to be a dull haze in the inferior nasal quadrant of the cornea like a deep keratitis. There was increased vascularity at the limbus in this region and for some distance on

either side. On more careful examination it was observed that the corneal haze obscured a cyst of the iris about 3×5 mm., in shape and position (relative to cornea and pupil), as represented in the diagram. The remaining cornea and limbus appeared normal. Where the pupil was indented by the cyst there were posterior synechiae. With the corneal microscope it was seen that the cyst abutted against the cornea in front, giving rise to the opacity above noted. The cyst lining was thin, as with careful illumination the

iris deep to the cyst and forming its posterior boundary could be seen. Centrally a delicate membrane dotted with fine pigment granules ballooned into the anterior chamber. While examining with the corneal microscope, during the movement of the lids it was noted that three fine lashes near the punctum curved inwards and rubbed on the corneal edge just over the lower and inner aspect of the cyst. No evidence was forthcoming, however, that a hair had become embedded. The tension was taken daily for a period of ten days starting on August 17, 1924, and remained constant at R.E.T.=30; L.E.T.=28 (McLean), except on August 18, 1924, when for no obvious reason it was registered at 34 in the right eye and 30 in the left eye. Records of the treatment of iris cysts in the literature at my disposal did not seem very encourag-

ing. Iridectomy, tapping, trephining and so on had all been tried without good results. It appeared that the great difficulty was to get rid of all the cells lining the cyst and so prevent a recurrence. I decided after considerable thought to try the effect of killing the cells of the lining membrane *in situ*. The cyst wall was evidently very simple, possibly a single layer of cells. It was considered that if the cyst could be filled with pure carbolic and then emptied and washed out, that the end in view would be accomplished. This was carried out on August 28, 1924, as follows: Two small bore needles were chosen with sharp chisel points and of short length, but of different bores. These were fitted on two Alston syringes (Dental Manufacturing Co.). It is necessary to have very fine sharp, short needles (say 1 cm.); fairly large, easily handled syringes with perfectly smooth working plungers. One syringe was filled with normal saline, the other carrying the needle of larger bore was kept empty. The needles on their syringes were then introduced into the cyst subconjunctivally and from opposite directions (for the sake of convenience and steadiness). The empty syringe was used to aspirate the cyst, very delicately. It was then detached from its needle, emptied and a few minims of pure carbolic taken up. This was introduced into the cyst in quantity necessary to fill it and straightway aspirated. The other syringe was then operated, filling the cyst with saline, which was immediately withdrawn by the carbolic containing syringe, and so on till it was considered that no free carbolic was left in the cyst. The needles were withdrawn, atropin instilled, and the eye bandaged. The reaction was comparatively slight; atropin was pressed and after a week it was apparent that the region of the cyst was contracting and the pupil rounding off where it had been indented.

On October 10, 1924, six weeks after the operation, examination with the corneal microscope showed that the cyst was completely collapsed and no lumen could be detected. There was an opaque film on the back of the cornea and apparently an anterior peripheral iris adhesion at the angle. There were delicate posterior synechiae in the position before referred to and a deposit of fine pigment granules on the anterior lens capsule. When the pupil was allowed to contract it was round, and the vision was 6/36 with correction.

On January 22, 1925, the pupils were equal and active; a layer of pigmented deposit lined the back of the cornea near its periphery in the position formerly occupied by the cyst. A few delicate thread-like anterior synechiae were present in this region and the iris appeared irregularly depigmented. The vision with lenses was 6/36 each eye. The tension was 30 in the right eye and 32 in the left eye (McLean). After dilatation with homatropin, a point of adhesion between lens capsule and iris showed up. Dilatation did not alter the tension.