

## LATE RESTORATION OF THE ANTERIOR CHAMBER BY SURGERY\*

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MY purpose in describing a case of restoration of an anterior chamber which had been absent for  $4\frac{1}{2}$  months after a trephine operation is, first, to emphasize the importance of facing post-operative complications boldly and of taking prompt surgical action, preferably not later than the 14th day after operation, to remedy the situation, not procrastinating along the uncertain path of wishful hoping for spontaneous restoration, and, secondly, to show that an appropriate operation may still succeed in restoring and maintaining an anterior chamber after it has been absent for as long as  $4\frac{1}{2}$  months.

In the case in question, a man, aged 65, had a trephine operation well and competently done by an experienced surgeon in a hospital outside the London area. His anterior chamber did not reform and he was admitted to Moorfields  $4\frac{1}{2}$  months later with a painful, red, irritable eye in which the lens had become opaque. The trephine hole was clearly open and showed little cicatrization; the bleb was very thin, white, and ectatic. Although no conjunctival fistula could be seen I had the impression that aqueous was probably seeping through the thinned conjunctival epithelium.

If it is evident in such a case that either the trephine hole is draining too freely or that there is a minute conjunctival fistula, then it is essential either to close the trephine hole or to reduce the amount of drainage through it, and certainly when a conjunctival fistula is present in the bleb this must be sealed. Unless this is done the air injected into the anterior chamber to reform it will escape and the anterior chamber will again become absent.

*Operation.*—To effect this closure, the bulbar conjunctiva is incised at the limbus from 9 to 3 o'clock and is undermined for about 8 mm. The thin, ectatic, and avascular bleb including any fistula is excised.

The trephine hole may be occluded either by a tongue of Tenon's capsule reflected from above it, or by a 0.5-mm. thick lamellar scleral disk of appropriate size (generally 1.5 mm. in diameter) taken from the site elected for cyclodialysis, 6 mm. from the limbus in the upper temporal quadrant. Either the flap of Tenon's capsule or the scleral disk is fixed to the edge of the trephine hole by a 0 black silk suture which is carried through the con-

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junctival flap 3 mm. above its lower edge in line with the trephine hole, then through one edge of the trephine hole concentric with the limbus, then through either the scleral disk or the flap of Tenon's capsule now placed in the trephine hole, then through the edge of the trephine hole opposite to the entry of the suture, and thence out through the conjunctiva 3 mm. from its cut edge and 1.5 mm. to the side of the entry site (Fig. 1). This suture is

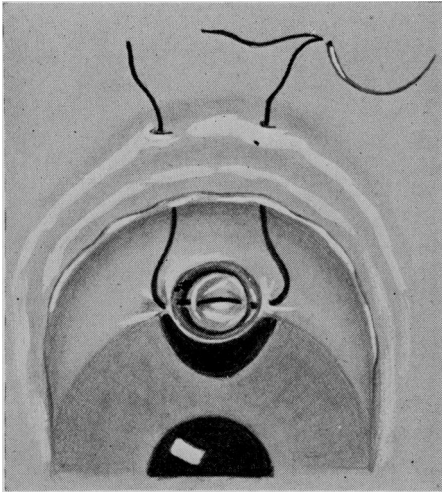


FIG. 1.—Conjunctival hood flap undermined and reflected upwards. Bleb excised. Scleral lamella 1.5 mm. diameter and 0.5 mm. thick placed in trephine hole and secured by suture which traverses conjunctiva, trephine hole margins, and scleral lamella.

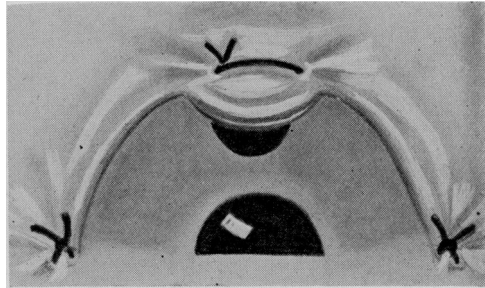


FIG. 2.—Trephine hole occluded and covered by scleral disk and conjunctival flap. Conjunctival hood flap brought up to limbus by mattress sutures at 9 and 3 o'clock.

now tied in such a way that the trephine hole is occluded and covered by the conjunctival flap.

Cyclodialysis is now done in the upper temporal quadrant and sterile air is injected along this track into the anterior chamber. Mattress conjunctival sutures of 0 black silk placed at 9 and 3 o'clock draw the edge of the conjunctival hood flap up to the limbus (Fig. 2).

*Post-Operative Course.*—The air remained in the anterior chamber for 8 days before absorption was complete. The sutures were removed on the 9th day after operation.

### Result

The anterior chamber has remained about 3 mm. deep in the centre, and the eye has settled down free from pain, injection, and lacrimation. The intra-ocular pressure has remained within physiological limits.