DONOR CORNEAE FOR PRESERVATION*† A MODIFIED DISSECTION TECHNIQUE

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THE simple method of dissecting a corneo-scleral button from the donor eye described below is useful in maintaining a uniform plane of dissection for lamellar grafts because a dark background is provided by the uveal tissue kept *in situ* with the preserved donor cornea.

After enucleation the eye is washed with sterile normal saline, kept immersed in 1 : 5000 solution of Merthiolate for 5 minutes, and then washed with Ne-Ba-Sulf solution (Dumex). The eye is held in the hand on a sterile cotton pad. Remnants of conjunctiva, if any, are removed. A scratch incision about 5 mm. in length is made on the sclera 4 mm. away from the limbus with a Bard-Parker knife, care being taken not to puncture the underlying uveal tissue. One blade of a blunt-bladed scissors is introduced through this incision and carefully swept through the cleavage between the sclera and ciliary body; the incision is then enlarged concentric to the limbus (Fig. 1).

A small cut is now made in the ciliary body with a spring scissors close to its attachment to the sclera to enter the posterior chamber. This cut is gently extended around so that the iris and the attached part of the anterior surface of the ciliary body are freed from the remaining posterior ciliary body. Separation of the attached zonular fibres with an iris repositor completes the dissection of the corneo-scleral disc, which can now be lifted up with all the iris diaphragm in place, attached to a rim of ciliary body.

Fig. 2 shows the parts of the anterior segment of eye which are included in the dissection. This is washed with Ne-Ba-Sulf solution, all the fluid is drained off, and the button is placed in a previously prepared bottle containing 5 g. molecular sieve granules and 15 ml. sterile glycerin (McNair and King, 1955). The cap of the bottle is screwed on, sealed with melted paraffin, and stored at room temperature (King, McTigue, and Meryman, 1961).

FIG. 1.—Line of scleral incision.

FIG. 2.—Diagram of anterior segment, showing plane of dissection of corneo-scleral including the iris diaphragm and the rim of the ciliary body.

The procedure outlined above is now routinely used at this Eye Bank where more than 1,300 donor human eyes have been processed in the last 7 years and a total of 475 corneal grafting operations have been performed. These preserved corneae are also supplied to various eye surgeons in India.

REFERENCES

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