6 Operations on the Ciliary Body

The ciliary body is attached to the ocular wall at the scleral spur. This band of attachment forms a barrier between the anterior chamber and the sclerochoroidal interspace, and any changes in that barrier will affect the intraocular pressure. Operations on the ciliary body consist either in separating the ciliary body from its attachment (cyclodialysis) or reattaching the ciliary body to the scleral spur (cyclopexy).

6.1 Cyclodialysis

Detachment of the ciliary body is accomplished with a blunt spatula whose shape conforms to the curved inner surface of the sclera. The spatula is introduced through a scleral incision into the sclerociliary space and passed along the inner scleral surface toward the anterior chamber. Injury to the vulnerable, vascular uvea is avoided by pulling the sclera away from the uvea with the spatula rather than pushing the uvea from the sclera. All the manipulations in cyclodialysis, then, are accomplished essentially by outward traction. This produces a visible external bulge in the sclera which aids the operator in recognizing the position of the spatula.

Patency of the cyclodialysis can be maintained by the injection of viscoelastic material. However, the high resistance at the scleral spur may cause the material to flow back beneath the choroid during the injection. Therefore, following the rule for the application of viscoelastic materials (see Fig. 2.20) the resistance at the scleral spur is overcome by first probing with the rigid cannula before injecting the material (Fig. 6.1).

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1 Avoid the horizontal meridian with the long posterior ciliary arteries!
Fig. 6.2. Cyclopexy with continuous overlapping sutures. a Perspective view of the suture in a scleral “step” incision. b Overhead view, c cross section. A lamellar dissection of the sclera has been performed along the limbus, and the scleral flap (S) has been divided into several segments (see Fig. 1.54) and reflected. The thinned scleral bed (B) is incised to expose the detached ciliary muscle (M). A continuous suture technique is used in which the needle is reintroduced behind the previous point of emergence, so that the overlying segments run counter to the direction of the overall suture line. 1, continuous suture for cyclopexy; 2, single loops for closure of scleral bed.

Fig. 6.3. The problem of suturing layers together with a circular needle. Top: Longitudinal section through the two layers. Bottom: Overhead view of the superficial layer.

**Arrows top:** Tissue of superficial layer encompassed by the suture.

**Arrows bottom:** Encompassed tissue of the deep layer.

a. Because of the curved shape of the needle, a suture that is continuous in the superficial layer may leave discontinuities in the deep layer. The magnitude of this discrepancy for a given needle curvature depends on the thickness of the upper layer.

b. If the suture that is to tack the lower layer to the upper layer without gaps, the needle must be reintroduced behind the previous point of emergence in each pass so that an oblique, overlapping suture pattern is obtained (analogous to the shingles on a roof).