The Conjunctival Rotation Flap

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Conjunctivoplasty has two indications: to cover refractory corneal ulcers and to close perforations which may or may not be sutured beforehand. The standard conjunctival plasty confronts us with two problems. In the first place, it is not always easy to prepare free a conjunctival flap that will cover the desired place for some time without tension. In the second place, however, thoroughly the flap is prepared, at its underside, which is to cover the wound, there will always be small mesenchymal fragments of the subconjunctival connective tissue. The tendency of this tissue to assist at the threatened site by penetration of vessels may sometimes be undesirable, especially in the case of closure of perforations, in the first place those perforations which – even after accurate wound treatment – are not entirely adapted.

A simple method with which these two disadvantages can be overcome is the creation of the conjunctival rotation plasty. From anywhere around the cornea we may, provided we do not start higher than the fornices, prepare conjunctival flaps of the width of the cornea down to the limbus, which can be turned up like a pinnafore so that the epithelium of the conjunctiva lies on the corneal epithelium. It is an additional advantage that when the sutures come loose too early, the flap can be restored to its position without any difficulty. With this method, also, the flap must be made as thin as possible but this is only to avoid unnecessary adhesion between the new conjunctival epithelium and the episclera at the donor site, and further, to allow maximal observation through the flap. Once the desired result has been achieved, the flap can be severed near the limbus. New conjunctival epithelium will cover the donor site again.

Planten

435

Discussion

Kok-Van Alphen: Many thanks for your promotion of this method. The ‘standard’ conjunctivoplasty means nothing but misery to those who desire to perform a corneal transplantation later on. An alternative is to close a descemetocoele with a piece of plastic plus tissue adhesive (iso-butyl-cyano-acrylate).

Von Winning: Do you have experience of bullous keratopathy?

Planten: I have no experience of it

but on the basis of theoretical considerations I believe I should prefer in this case to perform the standard plasty with the ‘nutrient mesothelium’ towards the pathological corneal epithelium.