Surgical technique and postoperative treatment in perforating injuries of the lens. [German]

Authors: Buschmann W.

Publication Date: 1983

Abstract:

Extensive experimental research proved that the healing of lens capsule wounds can be supported effectively by application of a fibrin tissue adhesive. The result is a circumscribed scar in an otherwise clear lens. The clinical application of the method was successful as well. Preliminary results have been published and a review covering all patients treated is in preparation. This paper is devoted to the indications, techniques and postoperative treatment. The application of the fibrinogen tissue adhesive is indicated if spontaneous healing cannot be expected or has failed and the major parts of the lens are still clear. Even very large traumatic posterior subcapsular rosettes may disappear after closure of the lens capsule wound. Therefore, they are by no means a contraindication for this lens-saving fibrinogen application. The tissue adhesive should be applied as soon as possible after injury. Especially in larger lens capsule lesions we apply it regularly as part of primary surgical care. Successful application of the tissue adhesive is still possible in the days following a perforating injury if the lens capsule wound is small and the progress of lens opacification is slow. Up to now we have used only the easiest application technique in clinical work. Thrombin solution and fibrinogen concentrate were applied successively to the lesion area and its surroundings, using thin, blunt needles. Swollen, denaturated lens fibers should be removed before application. In case of perforation of the anterior and posterior lens capsule, fibrin closure of the anterior lesion usually suffices. A corneoscleral incision and full exposition of the lens wound to be sealed will be preferred in future in larger lens capsule wounds, particularly equatorial ones. Topical and systemic application of antibiotics is used postoperatively as in all perforating injuries. In lens

injuries, we apply topical atropine for 4-6 months after surgery. The importance of this long-term postoperative treatment is illustrated by one of the cases treated. After complete perforation of the lens and fibrinogen application good regression of the lens opacities was observed; however, the atropine treatment was discontinued too early, and the result was that the capsule wound was leaking again. A second fibrinogen adhesive application followed by 6 months of topical atropine treatment again resulted in regression of the lens opacities and a corresponding increase in visual acuity. The recommendation to use miotics in the postoperative treatment of lens injuries no longer appears to be justified.