Management of coexisting corneal disease and glaucoma by combined penetrating keratoplasty and trabeculectomy with mitomycin-C

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Regis S. Figueiredo; Silvana V. Araujo; Elisabeth J. Cohen; Christopher J. Rapuano; L. Jay Katz; Richard P. Wilson

Background and Objective: The management of coexisting corneal disease and uncontrolled glaucoma continues to be a challenging clinical situation. The purpose of this study is to evaluate the results of combined penetrating keratoplasty and trabeculectomy with mitomycin-C.

Patients and Methods: A retrospective study was undertaken to review the records of nine patients who had corneal edema and high intraocular pressure managed by simultaneous penetrating keratoplasty and trabeculectomy with mitomycin-C.

Results: The nine patients had an average pre-operative intraocular pressure of 26 mmHg (range 17 to 41 mmHg) and associated corneal edema. The average postoperative intraocular pressure at last follow-up was 19 mmHg (range 5 to 53 mmHg). Three patients needed additional procedures. Six of nine patients had intraocular pressures judged to be adequately controlled (11 ± 5 mmHg, range 5 to 18 mmHg) throughout the postoperative period (average follow-up 16 months). Grafts remained clear in seven patients. The grafts failed in two cases in which additional glaucoma surgery was necessary.

Conclusion: Combined penetrating keratoplasty and trabeculectomy with mitomycin-C should be considered for selected patients with uncontrolled glaucoma and corneal disease who have sufficient conjunctiva for a filtering procedure.

Quantitative study of the effect of dacryocystorhinostomy on lacrimal drainage

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Jorge Mario Carvalho Malbouisson; Marcos Daniel Ramos Bittar; Habib Nahmatallah Obeid; Fernando Cenci Guimarães & Antonio Augusto Velasco e Cruz

Abstract: Using scintigraphy, we have studied the lacrimal drainage from the conjunctival sac of normal subjects and patients who have undergone dacryocystorhinostomy. A mathematical model of drainage was constructed that accurately described the complete activity curves for both groups. The initial rate of drainage was shown to be a relevant parameter to characterize drainage, and it was found to be different from normals to patients, indicating that the lacrimal pump mechanism is affected bv dacrvocystorhinostomy.