Abstract

Causes for Graft Failure in Penetrating Keratoplasty

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Introduction: Various immunological or non-immunological factors can provoke or contribute to the irreversible loss of corneal graft transparency and their early recognition and management is of crucial importance for graft survival.

Aim: To determine causes for graft failure in patients with penetrating keratoplasty (PKP).

Patients and methods: One hundred twenty four consecutive PKPs performed from January 2005 to December 2009 were included in a retrospective interventional case series. Data on preoperative condition (corneal vascularization, IOP, lens status, etc), type of surgery and postoperative complications (secondary glaucoma, rejection episodes, vascularization) were analyzed.

Results: Graft failures occurred in 20 patients (16%). In 9 of these cases (45%) PKP was combined with other surgical procedures. Graft rejection episodes were the most common cause for graft failure– 12 patients (60%). Other frequent risk factors included corneal vascularization, increased intraocular pressure and PC IOL – each in 11 cases (55%). Further causes were recurrent herpetic infection- 2 patients (10%), AC IOL, iris-fixated IOL, aphakia and regraft - each in 1 patient (5%). The mean follow up period was 36 months.

Conclusion: Our analysis identifies various factors for graft failure. Patients with PKP should be followed up continuously.

Keywords : Penetrating Keratoplasty, Corneal Graft