

Human Allograft Limbal Transplantation for Corneal Surface Reconstruction

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摘要

Abstract

Limbal allograft transplantation was performed consecutively in 16 eyes with thermal or chemical burns (n = 5), Terrien's degeneration (n = 2), congenital sclerocornea (n = 1), Stevens-Johnson syndrome (n = 1), and chronic keratoconjunctivitis (n = 7), by transplanting randomly selected cadaver limbocorneal grafts to the recipient eye that had received superficial lamellar keratectomy to remove fibrovascular pannus. Oral cyclosporine A was administered immediately for 2.9 +/- 1.3 months. During 18.5 +/- 5.4 months of follow-up, the results showed improved visual acuity in 13 eyes (81.3%) and rapid (within 1 week) surface healing in 10 eyes (62.5%). Donor limbal tissue developed engorged and tortuous blood vessels in 12 eyes within 1-2 months, but these regressed within 3 months after surgery. No acute graft failure or allograft rejection could be identified. Twelve eyes (75%) showed total regression of vascularization and four eyes had decreased vascularization. These preliminary results indicate that limbal allograft transplantation may be able to reconstruct a corneal surface that has undergone bilateral diffuse destruction, including the loss of limbal epithelial stem cells