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Service (sector) Refractive Surgery Nº CEP 0068/05

Automated lamellar keratectomy in patients with bullous keratopathy

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Purpose: To relieve pain in patients with bullous keratopathy (BK) until penetrating keratoplasty and in patients with BK without visual prediction.

Methods: A randomized prospective study comparing two groups with ten patients with symptomatic BK submitted to automated lamellar keratectomy without and with mitomycin. Complete ophthalmological examination was performed including UCVA, BSCVA, biomicroscopy, tonometry, esthesiometry, UBM pachymetry, impression cytology, and pain questionnaire.

Results: 8/10 patients developed BK after ocular surgeries (cataract 6/10), all patients had corneal surface damage, 8/10 with epithelial and subepithelial bullae, 6/10 with neovascularization in more than 25% of corneal circumference and with more than 2 mm. The corneal edema was moderate in 9/10 patients. The UBM pachymetry average was 803.2 (428 to 1944), central cornea esthesiometry was 0.8, and inferior peripheral was 1.15. 6/10 related average pain of 7.4 in a scale of one to ten, and with more than four hours, and 4/10 had insomnia because the pain. In ten months of postoperative of automated lamellar keratectomy, in two groups with and without mitomycin, all patients had no corneal surface damage, 6/10 with neovascularization in less than 25% of corneal circumference and with 1-2 mm. Corneal edema was one degree or absent in all patients, 9/10 were without bullae, average of UBM pachymetry was 777.9, central esthesiometry was 0.85 and inferior peripheral 1.3.

Conclusions: All patients in both groups (with and without mitomycin) were without pain with ten months of postoperative of automated lamellar keratectomy.