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### Automated Lamellar Keratectomy in patients with Bullous Keratopathy

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

**Methods:** A randomized prospective study comparing two groups with twenty-seven patients with symptomatic BK submitted to automated lamellar keratectomy without (group 1) and with mitomycin (group 2). Complete ophthalmological examination was performed including UCVA, BSCVA, biomicroscopy, tonometry, esthesiometry, UBM pachymetry, impression cytology, and pain questionnaire.

**Results:** Twenty-one patients of twenty-seven (77%) developed BK after ocular surgeries (17/27 after cataract surgery), all patients had corneal surface damage with epithelial and subepithelial bullae, 17 (62%) had neovascularization in more than 25% of corneal circumference and with more than 2 mm. In preoperative the corneal edema was moderate in 19 (70%) patients. The UBM pachymetry average was 682 in group 1 (428 to 862) and 992 in group 2 (416 to 1944). In both groups central cornea esthesiometry was 1.0 and inferior peripheral was 1.65 (cm of filament). The average of pain in two groups was 7.6 in a scale of one to ten, the episodes of pain were more than four hours of 19 (70%), and 12 had insomnia because the pain. In one year of postoperative of automated lamellar keratectomy in two groups with and without mitomycin all patients had no corneal surface damage, 7/10 with neovascularization in more than 25% of corneal circumference and with more than 2 mm. Corneal edema was more than two degrees in 6/10 patients, all of them were without bullae, the average of UBM pachymetry was 626 in group 1 and 1362 in group 2 with mitomycin, central esthesiometry was 0.75 and inferior peripheral 1.7 (cm of filament). The average of pain in one year of postoperative was 0.36 in a scale of one to ten, no patient had episode of pain upper four hours or related insomnia due to the pain.

**Conclusions:** The Automated Lamellar Keratectomy with or without mitomycin represents a promising alternative in treatment of pain in symptomatic patients with Bullous Keratopathy.