



**Laser Eye Surgery from LASIK MD – Amniotic Membrane Transplantation
for Patients with Painful Bullous Keratopathy Awaiting Penetrating Keratoplasty**

Abstract Title: Amniotic Membrane Transplantation for Patients with Painful Bullous Keratopathy Awaiting Penetrating Keratoplasty

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Purpose: To evaluate the effectiveness of amniotic membrane transplantation (AMT) in the management of patients with painful pseudophakic bullous keratopathy (PBK) awaiting penetrating keratoplasty (PKP) after failure of conventional therapy.

Methods: AMT, using preserved amniotic membrane (AM), was performed in 12 eyes of 12 patients whose age ranged from 60 to 88 years (mean 75), awaiting PKP for painful PBK despite conventional treatment (ointments, bandage contact lens). Surgical technique consisted in a superficial keratectomy up to 1 mm anterior to the limbus and placement of the AM on the corneal bed with the basement membrane facing up. The AM was attached with four interrupted sutures and a 10.0 nylon running suture. Pain was evaluated using a visual analog scale (VAS) and assessed preoperatively and postoperatively at 2 weeks and at 1, 3, 6 and 12 months. A subjective questionnaire was also used to assess levels of pain, photophobia and foreign body sensation.

Results: There was a significant reduction in pain experienced at the 2-week visit (mean VAS 5.58 +/- 6.35 units ($p = 0.014$)) when compared to preoperative levels (mean VAS 14.67 +/- 4.38 units). Pain scores were constant throughout the study period (12-month mean VAS 5.42 +/- 5.70 units ($p = 0.01$)). Answers to the subjective questionnaire showed that at 6 months, a significant reduction in pain ($p = 0.03$) foreign body sensation ($p = 0.05$), and photophobia ($p = 0.044$) were noted. However, at 12 months, only pain was still noted to be significantly reduced ($p = 0.003$).

Conclusions: AMT is effective in alleviating pain in patients with symptomatic PBK refractory to conventional medical therapy.