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Amniotic membrane vs. anterior stromal puncture: a comparative study in the treatment of symptomatic bullous keratopathy

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Purpose: To compare amniotic membrane transplantation (AMT) vs. anterior stromal puncture (ASP) in the treatment of symptomatic bullous keratopathy. Patients/Methods: A prospective, randomized study was carried out at External Eye Disease and Cornea Service of the Federal University of Sao Paulo from June 2005 to December 2006. Thirty eight eyes of 38 patients with symptomatic bullous keratopathy were randomized in 2 groups: 18 patients underwent ASP and 20 patients AMT. Pre-operative evaluation included anamnesis and a complete ophthalmological examination including esthesiometry and pachimetry by ultrasonic biomicroscopy (UBM). Clinical evaluations were performed 30, 90 and 180 days after the procedures. **Results:** Evaluation of pain showed a significant decrease in frequency, duration and intensity (p<0.001) in both groups comparing pre and postoperative after 90 and 180 days of follow-up. Esthesiometry values decreased in AMT group (p=0.004) and in ASP group (p=0.120) without significant difference between the groups (p=0.556) after 180 days of follow up. A decreased of average pachimetric values (p<0.001) was observed for AMT (p=0.001) and ASP groups after 180 days of follow up.

Conclusion: AMT and ASP are both effective methods to relief the pain of patients with symptomatic bullous keratopathy.

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