CORRESPONDENCE

Comment on: Allogenic Simple Limbal Epithelial Transplantation Versus Amniotic Membrane Grafting in the Early Management of Severe-Grade Ocular Chemical Injuries—A Retrospective Comparative Study

EDITOR:

WE HAVE READ WITH GREAT INTEREST THE PAPER BY AGAR-wal and associates.[1] We agree that the establishment of an adequate approach and management of the acute stage of severe ocular chemical injuries is crucial for ensuring the best possible prognosis for these patients. Because of the nature of this disease, it would be extremely difficult to perform a randomized controlled trial to confirm the results perceived by this recently described technique. The findings and conclusions of their study are very interesting, and we would like to comment on the study design and statistical analysis performed. Looking at the study sample characteristics, heterogeneity is present, comparing both intervention groups in terms of age, time to surgical interventions, severity grade of injury, and type of chemical agent; that alone could induce confounding bias.[2] Regarding multivariate analysis, binary logistic regression model construction is equivocal due to the inclusion of amniotic membrane grafting (AMG) and allogenic simple limbal epithelial transplantation (alloSLET) surgical techniques as options for the categorical dependent variable, instead of being included as independent variables in the model to confirm their effects on the corneal epithelial healing process. The purpose of a multivariate analysis is to rule in or out the effect of independent variables (time-to-treatment since the injury, severity grade of disease, age, sex, best-corrected visual acuity, prior treatment, type of chemical injury, limbal stem cell deficiency, amniotic membrane transplantation, alloSLET procedure) on the dependent variable (epithelial healing).[3] Regarding the logistic regression model, the study sample size is too small (n = 76) to evaluate that many independent variables with low power and imprecision on the estimations. In regard to the potency of the logistic regression model, the study sample size is too small (n = 76) to evaluate whether that many independent variables derive in low power and imprecision on the estimations. Regarding epithelial healing, the main outcome measurement of the study, the authors reported a statistically significant result with a benefit to patients in the alloSLET group (odds ratio, 0.966; P = .001), but we believe it is a marginal, clinically significant result. Finally, we would like to congratulate the

authors for their innovative thinking and their effort to improve outcomes in this devastating disease with a high impact on visual function and quality of life.

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Reply to Comment on: Allogenic Simple Limbal Epithelial Transplantation Versus Amniotic Membrane Grafting in the Early Management of Severe-Grade Ocular Chemical Injuries—A Retrospective Comparative Study

REPLY

WE APPRECIATE THE INTEREST EXPRESSED IN AND ACKNOWL-edge the comments of Navarro and associates about our study.[1] The first concern raised was about the groups not being matched with respect to demographic and preoperative clinical parameters (age, time to presentation, grade of injury and causative agent). We would like to repeat that the homogeneity among the groups was confirmed using regression analysis and thereby negated the possibility of a confounding bias. Only the above-mentioned 4