

Evaluation of Dry Eye after Cataract Surgery

Mouna M. Al Saad, MD* Amin B. Shehadeh, MD** Saif Aldeen S. Al Ryalat, MD***
Ahmad Al Amer, MD*** Hiba Mihyar****

Objective: To evaluate the changes in tear break up time (BUT) and Schirmer test in patients after cataract surgery and its association with the type of surgery, gender and laterality.

Design: A Prospective Study.

Setting: Jordan University Hospital, Jordan.

Method: Forty eyes of forty patients who underwent cataract surgery between October 2018 and January 2019 were included in the study. Thirty patients underwent phacoemulsification and ten patients underwent extracapsular cataract extraction (ECCE). All patients were evaluated preoperatively and up to 6 weeks postoperatively. Tear BUT and Schirmer test were measured at one, three, and six weeks postoperative and were compared within each group and between the two main study groups.

Result: Forty patients were included in this study, 22 (55%) were males and 18 (45%) were females. The average age was 64.9 ± 9.73 years. Thirty (75%) patients underwent phacoemulsification and 10 (25%) patients underwent ECCE. Twenty-three (57.5%) cataracts were in the right eye and 17 (42.5%) were in the left eye. Schirmer and BUT tests taken preoperatively were compared to one, three, and six weeks postoperatively. There was a significant decrease in both Schirmer and tear BUT test at one and three weeks in both groups (P-value less than 0.05). ECCE patients had significantly lower values of both tests at one and three weeks compared to phacoemulsification patients (P-value less than 0.05). No gender or laterality difference was found between preoperative and postoperative Schirmer and tear BUT test values (all P-values > 0.05).

Conclusion: Cataract surgery can cause or worsen dry eye and affect the dry eye test values in the postoperative time. This holds true for both types of cataract surgery (phacoemulsification and ECCE).