

COMPARATIVE ANALYSIS OF EFFECT OF CLEAR CORNEAL INCISION SITE ON TEAR FILM FOLLOWING PHACOEMULSIFICATION SURGERY

N.P. Singh, S. Grover

Ophthalmology, Dr. Baba Saheb Ambedkar Hospital, India

Purpose: To study tear film changes after phacoemulsification surgery and to investigate effect of location of clear corneal incisions on tear film tests after surgery . **Methods:** We enrolled 50 eyes of 50 patients with senile cataract requiring phacoemulsification in a prospective randomized study. Surgery was performed with Superior clear corneal Incision in 25 patients and with temporal clear corneal Incision in another 25 patients. All patients were studied using ocular surface disease index (OSDI) score 3 days before cataract surgery and 7 days, 1 month and 3 month Post operatively. Tear break-up time (TBUT), Schirmer-1 (ST-1) and Conjunctival impression cytology to study mean goblet cell density from the corresponding conjunctival region and lower lid covered region were carried out at the same time. **Results:** All the tear film tests studied on the eyes showed deterioration following phacoemulsification surgery . The ST 1 , TBUT ,OSDI and Impression cytology mean goblet cell density results differed significantly in pre and post operative examination in both the incision site groups (p0.05) . The results of these tests were not statistically significant different according to incision location(p0.05). Mean goblet cell density showed significant deterioration in inferior region as compared to superior and temporal region (p0.05). **Conclusions:** Phacoemulsification can cause or aggravate dry eye symptom and affect the tear film tests values in the post operative period upto 3 months. The location of the clear corneal incision Superior Vs Temporal had no effect on the tear film tests. **Financial disclosure:** None.