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## Impact of topical nonsteroidal anti-inflammatory drugs in prevention of macular edema following cataract surgery in diabetic patients

Ahmed Alnagdy, Hossam Abouelkheir, Sherief E El-Khouly and Sahar M El Tarshouby

Mansoura University, Egypt

**Aim:** Evaluating the efficacy of prophylactic administration of topical non-steroidal anti-inflammatory drugs on macular edema following cataract surgery in diabetic patients, and comparing between types of non-steroidal anti-inflammatory drugs (ketorolac tromethamine 0.4% and nepafenac 0.1%) in preventing macular edema in diabetic patients undergoing phacoemulsification cataract surgery.

**Methods:** Group1 (control) received artificial tears substitute as a placebo group, group 2 (Nepafenac) received topical nepafenac 0.1%, group 3(Ketorolac) received topical ketorolac tromethamine 0.4%. Patients were examined postoperatively after completing one week, one month, two months and three months' intervals for evaluating cystoid macular edema (CME) development. The main study outcomes were achieving the best corrected visual acuity (BCVA) and change in the central macular thickness

measured with optical coherence topography (OCT).

**Results:** Eighty eyes of 76 patients were included in this study. BCVA showed a statistically significant difference at the third month postoperative follow up between the control group and the nonsteroidal anti-inflammatory (NSAIDs) groups. There was an increase in the central macular thickness (CMT) in all cases starting from postoperative first week until third month. CMT showed a statistically significant difference between control group and NSAIDs groups from postoperative first month until third month. There was no statistically significant difference between Nepafenac and Ketorolac groups in BCVA and OCT CMT.

**Conclusion:** Prophylactic preoperative and postoperative NSAIDs may have a role in reducing the frequency and severity of CME in diabetic eyes following cataract surgery.

elkhoully\_eye\_clinics@yahoo.com