Cataract Surgery Outcomes in Patients with Non-ocular Autoimmune Disease: An Update

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Purpose: To identify whether patients with systemic autoimmune diseases without uveitis are at an increased risk for adverse outcomes following phacoemulsification surgery.

Methods: Medical records were reviewed of patients who underwent phacoemulsification cataract extraction with intraocular lens implantation between January 1, 2014, and December 31, 2019, at the University of Colorado Hospital. Exclusion criteria included history of uveitis and cataract surgery combined with another intraocular surgery. Data including sex, race/ethnicity, age, surgery length and cumulative dissipated energy (CDE), pre- and post-operative best-corrected visual acuity (BCVA) and intraocular pressure (IOP), and the presence or absence of post-operative persistent anterior uveitis (PAU) and post-operative cystoid macular edema (CME) were obtained. At our institution, patients with autoimmune diseases without uveitis receive the same post-operative corticosteroid regimen without additional pre-operative corticosteroids as compared to patients without autoimmune diseases.

Results: The charts of 762 eyes from patients with autoimmune diseases were reviewed. The control group of patients without autoimmune diseases comprised 10,201 eyes. Baseline demographics of the two groups were notable for a significantly higher percentage of females (76.4%, p <0.0001) and younger age (68.3, p=0.013) within the autoimmune group. There was no statistically significant difference between the two groups with regards to race/ethnicity, surgery length, post-operative BCVA and IOP, and post-operative PAU and CME. For PAU specifically, 3013 eyes that had previously been reviewed for PAU made up the control group. 2.4% of eyes developed PAU in this control group.

Conclusions: Patients with systemic autoimmune diseases without uveitis do not appear to be at higher risk for adverse outcomes, including persistent anterior uveitis, following phacoemulsification cataract extraction. These findings suggest that patients with auto-immune diseases without uveitis do not require a modified peri-operative corticosteroid regimen.