Clinical findings and treatment results of pediatric aphakic glaucoma patients

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Purpose: To evaluate the clinical findings and treatment results of patients with aphakic glaucoma following congenital cataract surgery.

Methods: We retrospectively reviewed the records of all congenital cataract patients who underwent lensectomy and anterior vitrectomy between March 1992 and February 2012 in our clinic. The patients who had glaucoma treatment postoperatively due to intraocular pressure ≥ 25 mmHg were included in the study. Treatment modalities and responses were noted. Effect of patient’s age at time of cataract surgery, presence of postoperative complications and additional ocular pathologies were also evaluated.

Results: Fourty eyes of 25 patients (14 male and 11 female) were enrolled in the study. Mean age of cataract surgery was 3.31 ± 2.28 (1-11) months and the mean follow-up after cataract surgery was 18.4 (9-36) months. Glaucoma was developed a mean of 8.4 ± 23.1 (0.3-94) months after cataract surgery. In 21 (52.5%) eyes, medical treatment was enough to normalize the IOP elevation whereas 19 (47.5%) eyes required one or more glaucoma surgeries. 6 eyes with additional ocular pathologies (microcornea in 5 eyes and primary persistant hyperplastic vitreus in 1 eye) were treated with glaucoma medications. Among 19 eyes having surgery, 7 (37%) eyes needed only one operation, 5 (26%) eyes needed 2 operations and 7 (37%) eyes needed ≥ 3 operations for glaucoma. In 15 (37.5%) eyes, pupillary membrane formation was observed as a postoperative complication following cataract surgery and 7 (47%) of them needed surgery for IOP control. No significant relation was observed between the age of cataract surgery, pupillary membrane formation, additional ocular pathologies and need for glaucoma surgery or number of operations (p ≥ 0.05; Pearson’s correlation analyse, chi square test).

Conclusions: Aphakic glaucoma is an important complication of congenital cataract surgery which is not rare (%14). Nearly half of the patients require glaucoma surgery (47.5%). Patient’s age at the time of cataract surgery, additional ocular pathologies and pupillary membrane formation were not found to be a potential risk factor for the necessity of glaucoma surgery and/or number of surgeries.

Key Words: Aphakic glaucoma, congenital cataract