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SURGICAL MANAGEMENT OF COMPLICATIONS OF RETINAL CAPILLARY HEMANGIOBLASTOMA

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Retinal capillary hemangioblastoma (RCH) is one of the most common intraocular vascular tumors, that can be complicated with sight-threatening complications including retinal exudates, tractional and/or exudative retinal detachment, vitreous hemorrhage etc. Despite recent advances, the optimal treatment strategy for this condition is still controversial due to the wide spectrum of clinical presentations. Choice of a treatment modality for RCH is influenced by the location, size of the tumor, and presence of any associated findings, including exudation and evidence of fibrovascular proliferation. The aim of this study is to evaluate the results of different surgical approaches for the treatment of various complicated presentations of retinal capillary hemangioblastoma (RCH).

The clinical records of RCH patients to which vitreoretinal surgery was performed in our clinic, were retrospectively analyzed. Demographic features, family histories, associated systemic findings, laterality and status of the fellow eyes were recorded. Surgical techniques and results of the treatments during follow up were evaluated.

11 eyes of 11 patients with a mean follow-up of 13 months (9-132mo) were included. Mean age of diagnosis of the ocular disease was 15 yrs, 7 of them were pediatric patients. 3 of them (27%) had family history, 8 cases (73%) had bilateral RCHs. 4 of the cases (36%) had various systemic hemangioblastomas detected; all of them were positive for bilateral ocular RCHs. All cases had one or more of complications of RCH including Tractional RD, Exudative RD and vitreous hemorrhage. 10 eyes (91%) underwent vitrectomy, 3 (30%) of which were combined with scleral buckle (SB), 1 (9%) had SB alone. Total surgical excision of the RCH with SiO tamponade was performed in 5 eyes (46%), while the remaining were treated more conservatively without tumor excision with air/gas tamponade. 8 (73%) of the eyes had anatomical success with attached retina on final visit and final mean visual acuity was 1.5 logMAR (0-4); 3 eyes ended up with phthisis bulbi; all of which were large RCHs with conservative surgery. The mean number of surgeries per eye in the tumor excision group (2.0) was statistically significantly lower than that in the conservative surgery group (3.0) ($p=0.02$).

Surgical excision of big solitary RCH associated with exudative and tractional RD seems to give better results than conservative surgeries without tumor excision.

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