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### Original Article

#### THE RESULTS OF RADIAL OPTIC NEUROTOMY FOR TREATMENT OF CENTRAL RETINAL VEIN OCCLUSION

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#### Abstract:

Central retinal vein occlusion (CRVO) is the third most common blinding vascular retinal disorder. As there is no proven treatment for CRVO, we performed this study to evaluate the effectiveness of radial optic neurotomy (RON) on visual acuity in eyes with CRVO. This study was designed as an interventional case series. Pars plana vitrectomy with RON was performed in 18 eyes of 16 patients with ischemic CRVO with visual acuities of 20/400 or less. Postoperative and preoperative visual acuities were compared using *t* paired test. Mean preoperative visual acuity was 20/1000 (range, 20/1600 to 20/630). Mean follow-up time was 3.6 months (range, 1 to 9 months). Mean postoperative visual acuity was 20/400 (range, 20/1600 to 20/50) at last follow-up and the difference was significant ( $P < 0.01$ ; *t* paired test). Six patients (33%) improved to 20/200 postoperatively. There were no major complications intraoperatively. Chorioretinal shunts developed in neurotomy site in 9 cases (50%) 4 to 10 weeks after procedure which were associated with faster resolving of hemorrhage and venous dilation. There were no major complications noted with this procedure but vitreous hemorrhage and iris neovascularization was observed in the early postoperative period in 2 (11%) of 18 cases. RON may improve visual acuity in eyes with CRVO. It is a technically feasible and fairly safe procedure but postoperatively it may result in some complications such as vitreous hemorrhage, iris neovascularization and retinal detachment.

#### Keywords:

Central retinal vein occlusion . radial optic neurotomy . vitrectomy

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