

Tenon capsule grafting versus autologous scleral graft in Ahmed glaucoma valve surgery

Fariel Wagdy

Ophthalmology Department, Faculty of Medicine, Menofia University, Shebin El Kom, Egypt.

Objective: To compare between the surgical outcomes of Tenon capsule grafting and autologous scleral graft in Ahmed glaucoma valve (AGV) surgery in the management of refractory glaucoma and prevention of tube exposure. **Patients and Methods.** This prospective randomised study included 30 eyes of 30 patients with refractory glaucoma, who were aged between 46 and 58 years and diagnosed with refractory glaucoma. This study was conducted in Menofia University Hospital between July 2018 and December 2019. Informed patient consent was obtained. The studied eyes were divided into two groups: the first group included 15 eyes for which AGV with Tenon capsule grafting was performed, while the second group included 15 eyes for which AGV with autologous scleral graft was performed. All patients were followed up for one year after the surgery. The outcomes were evaluated according to intraocular pressure (IOP) and the number of postoperative glaucoma medications. Visual acuity, visual field, number of postoperative glaucoma medications, and postoperative complications were followed throughout the 1-year follow-up period. **Results.** There was a significant reduction in IOP in both groups, with more reduction in the Tenon graft group where the mean IOP after one year was 11.66 ± 0.89 mmHg, whereas in the scleral graft group, the mean IOP was 14.20 ± 4.0 mmHg (value < 0.001). However, the difference between the 2 groups in lowering IOP was insignificant. Regarding postoperative complications, tube exposure was observed in one case in the scleral graft group with associated scleral melting and hypotony, postoperative hypotony was more in the scleral graft group with 3 cases (20%), and in the Tenon graft group, hypotony occurred only in 1 case (6.67%). In addition, less vascular blebs were seen in most cases in the Tenon graft group, while most blebs seen in the scleral graft group were vascular blebs. In addition, both groups showed stability in terms of visual acuity and visual field. **Conclusion.** Tenon capsule grafting and autologous scleral grafting might be effective and safe techniques when applied with AGV in the management of refractory glaucoma. Tenon capsule resection with grafting showed relatively low incidence of tube exposure and hypertensive phase

Biography

Fariel Wagdy is a Faculty of Medicine, and has experience of 5years in teaching from Menofia University, Shebin El Kom, Egypt.