

Session 2-F: Glaucoma: Shunts, Valves, and Drains

Title: Surgical Outcomes of Trabeculectomy Ab Interno Using the Trabectome in Adult Open-Angle Glaucoma

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Purpose: A prospective, non-randomized study was conducted to assess the surgical outcomes of trabeculectomy ab interno utilizing the TRABECTOME which is a 19.5 gauge surgical device that consists of an insulated footplate capable of penetrating the trabecular meshwork into Schlemm's canal. An infusion and aspiration system combined with electro-surgery removes a strip of trabecular meshwork overlying Schlemm's canal, allowing unrestricted access to the collector channel as demonstrated histologically.

Methods: One eye in each of 37 patients with open angle glaucoma underwent this new ab interno procedure utilizing the TRABECTOME device. The TRABECTOME was inserted through a 1.5 mm temporal clear corneal incision and advanced across the anterior chamber while visualized with a goniotomy lens. The footplate was inserted into Schlemm's canal and cautery used to ablate a several clock-hour strip of the trabecular meshwork as the footplate advanced along Schlemm's canal.

Results: The mean pre-operative pressures were 28.2 (± 4.2) mm Hg. At day 1 and at months 1, 3, 6 and 12, the mean pressures were 18.4 (± 10.9); 17.1 (± 5.4); 17.8 (± 4.2); 17.1 (± 3.7); 16.2 (± 1.9). There was one (2.7%) failure. There were 100% transient hyphemas as expected. Complications include 6 (16.2%) Descemet's changes, and 14 (38.2%) demonstrated localized PAS. Success: 36 (97.3%).

Conclusion: This study appears to have few complications with encouraging long-term results.