

Management of Uveitic Glaucoma with Ahmed Valve Implantation

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We evaluated the safety and efficacy of Ahmed valve implantation for the management of glaucoma associated with chronic uveitis in a retrospective cohort outcome study. Nineteen patients (21 eyes) with chronic uveitis underwent Ahmed valve implantation for uncontrolled glaucoma between 1995 and 1998. All patients had their uveitis controlled pre-operatively via immunomodulatory therapy. Ahmed valve implantation was performed, and immunosuppressive chemotherapy was continued in the early postoperative period for strict control of inflammation.

Our main outcome measures were control of intraocular pressure, with a secondary outcome measure being the number of anti-glaucoma medications required to achieve the desired intraocular pressure. Visual acuity and complications associated with the surgery were monitored.

The postoperative follow-up averaged 24.5 months. At the most recent visit all 21 eyes had intraocular pressures between 5 and 18 mm Hg. The average pressure reduction after Ahmed valve implantation was 23.7 mm Hg. The average number of anti-glaucoma medications required to achieve the desired intraocular pressure was reduced from 3.5 preoperatively to 0.6 postoperatively. No eye lost even a single line of Snellen acuity at the most recent postoperative visit. Two eyes developed hypotony in the course of follow-up, one resolved without specific intervention, and the other required autologous blood injections and tube ligation to correct the hypotony. One eye underwent Ahmed valve replacement for abrupt valve failure. Two eyes underwent penetrating keratoplasty for reasons believed to be unrelated to the glaucoma surgery.

CONCLUSIONS: Ahmed valve implantation can be an effective modality in the management of uveitic glaucoma. We attribute much of the success rate to our intolerance for inflammation, and aggressive perioperative immunosuppression.