

The Clinical Use of Ahmed Valve Implant as an Aqueous Shunt for Control of Uveitic Glaucoma in Dogs

Authors : Khaled M. Ali, M. A. Abdel-Hamid, Ayman A. Mostafa

Abstract : Objective: Safety and efficacy of Ahmed glaucoma valve implantation for the management of uveitis induced glaucoma evaluated on the five dogs with uncontrollable glaucoma. Materials and Methods: Ahmed Glaucoma Valve (AGV®; New World Medical, Rancho Cucamonga, CA, USA) is a flow restrictive, non-obstructive self-regulating valve system. Preoperative ocular evaluation included direct ophthalmoscopy and measurement of the intraocular pressure (IOP). The implant was examined and primed prior to implantation. The selected site of the valve implantation was the superior quadrant between the superior and lateral rectus muscles. A fornix-based incision was made through the conjunctiva and Tenon's capsule. A pocket is formed by blunt dissection of Tenon's capsule from the episclera. The body of the implant was inserted into the pocket with the leading edge of the device around 8-10 mm from the limbus. Results: No post operative complications were detected in the operated eyes except a persistent corneal edema occupied the upper half of the cornea in one case. Hyphaema was very mild and seen only in two cases which resolved quickly two days after surgery. Endoscopical evaluation for the operated eyes revealed a normal ocular fundus with clearly visible optic papilla, tapetum and retinal blood vessels. No evidence of hemorrhage, infection, adhesions or retinal abnormalities was detected. Conclusion: Ahmed glaucoma valve is safe and effective implant for treatment of uveitic glaucoma in dogs.

Keywords : Ahmed valve, endoscopy, glaucoma, ocular fundus

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