Ectropion Post Ahmed’s Glaucoma Valve Implantation: Case Report

Nawaf Almarzouki
Department of Ophthalmology, Jewish General Hospital, Montreal, Canada

Abstract: To describe, a yet non-documented complication of GDD surgery (glaucoma drainage device surgery) - Ectropion in Day 1 post implant of Ahmed Glaucoma Valve (AGV) tubeinferonasally. This report presents a patient with advanced open angle glaucoma. He underwent filtering surgery with AGV on the right eye following which he developed right lower lid ectropion in the first day after the surgery. The detailed ocular history, ophthalmic findings, clinical course and surgical management is discussed. Conclusion: Ectropion in early postoperative period following implant of AGV has not been described and could be a possible complication.

Keywords: Ahmed glaucoma valve, Ectropion, Ophthalmology

1. Introduction

The Ahmed glaucoma valve (AGV) is one of the currently most commonly used implants for aqueous drainage. It lowers intraocular pressure (IOP) by draining aqueous humor through a tube to a subconjunctival end plate. The AGV contains a one-way valve, which opens in response to a pressure increase in the anterior chamber.1,2 Many early and late postoperative complications have been reported but an ectropion in the early postoperative period is yet unrecorded.

2. Case Report

2.1. Presentation

An 84 year old patient referred to our out patients clinic for high intraocular pressure in the right eye. No previous ocular history of trauma, lasers, surgery or other ocular diseases. No family history of glaucoma. No past history of ocular or systemic medications.

On Examination, local examination of the face was unremarkable. Snellen’s visual acuity testing revealed CF (counting fingers) vision in the right eye and 20/40 in the left eye. Pupils exam showed an afferent pupillary defect in the right eye. For such an advanced glaucoma in the right eye with uncontrolled pressure, Ahmed tube shunt was selected to be the next step in the management of this patient.

2.2 Procedure

The patient prepped and draped in the usual sterile manner for intraocular surgery, using Povidone-Iodine drops and solution. 7-0 vicryl traction suture was used to expose the superotemporal quadrant. Westcott scissors were used to create a limbalperitomy at superotemporal quadrant with radial relaxing conjunctival incisions. With Westcott scissors bluntly dissect the area between superior and lateral rectus muscles then sub-Tenon’s retrobulbar anesthesia was administered at this point.

Stevens scissors were used to bluntly dissect bare sclera in superotemporal quadrant. Muscle hooks were used then to isolate the lateral rectus and superior rectus muscles. Then a FP7 Ahmed’s tube was primed. Before suturing the reservoir, an extended staphyloma involved the superotemporal quadrant was noticed. Then the plan changed to insert the tube in the inferonasal quadrant. Conjunctiva was closed with 7-0 vicrylsuture and limbalperitomy was created in the inferonasal quadrant. Thereafter, the reservoir was sutured to the sclera posterior to muscle’s insertion with 9-0 Nylon interrupted suture.

Westcott scissor was used to cut the tube in appropriate length in beveled fashion. Paracentesis was done temporally with a sharp blade.

Following this, a bent 23 guage needle was used to enter the anterior chamber above the iris and beneath corneal endothelium. The tube was then inserted through the sclerostomy with tying forceps. Then a donor scleral patch graft was cut with Stevens scissors then placed over the tube and sutured with 7-0 vicryl. The conjunctiva and Tenon’s tissue were re-anteriorized and the conjunctiva was re-apposed to limbal area using 7-0 vicryl. The eye was then patched and shielded.

At the end of the case the anterior chamber depth was checked and tube position was re-checked. The eye was dressed with corticosteroid and antibiotic ointments and patched and shielded.

Volume 5 Issue 4, April 2016
www.ijsr.net
Licensed Under Creative Commons Attribution CC BY

Paper ID: NOV162974

International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
2.3 Postoperative follow up

Day 1 post-op, Intraocul ar pressure was 8mmHg, formed anterior chamber, mild anterior chamber reaction and tube in good position. Right lower lid ectropion was noticed (fig1). The patient referred to occuloplastic surgeon and lower lid ectropion was repaired 1 month after glaucoma surgery (fig 2).

3. Discussion

Ahmed glaucoma valve5,6 is an established modality of management of advanced glaucoma cases with cumulative probability of successful outcome reported from different studies ranges from 76% to 87% at 1 year and 68% to 77% at 2 years5,6. Several early and late postoperative complications7 have been reported in the literature including transient hypotony (19.5%), shallow anterior chamber (14.5%), tube blockage (11.3%), hemorrhage (7.2%), encapsulated bleb (hypertensive phase)(10.9%), exposure of tube (5.0%), tube malposition (4.5%), corneal decompensation (2.3%), extrusion of implant (1.4%), and rarely endophthalmitis (1.7%)7. To our knowledge, no previous report of lower lid ectropion in the first day post glaucoma tube implant.

Predisposing factors for developing ectropion in this case are age-related weakness of canthal ligament and pretarsal orbicularis muscle. Using of lid speculum intraoperatively may added a mechanical or iatrogenic factor.

4. Conclusion

Ectropion in early postoperative period following implant of AGV has not been described and could be a possible complication.

Figure 1: demonstrating lower lid ectropion post Ahmed’s tube insertion inferonasaly.

Figure 2: lower lid post ectropion repair

References