

Complication of Glaucoma drainage device

Sumalee Boonyaleephan, MD.

Eye Ear Nose Throat Department, Faculty of Medicine, Srinakharinwirot University

Glaucoma drainage device เป็นทางเลือกหนึ่งที่สำคัญสำหรับการรักษาผู้ป่วยโรคต้อหินที่ไม่สามารถควบคุมโรคได้ด้วยการใช้ยา เลเซอร์ หรือการผ่าตัดทั่วไป ซึ่งการใช้ *glaucoma drainage device* นั้น นอกจากมีประโยชน์แล้ว ก็ยังอาจมีภาวะแทรกซ้อนเกิดขึ้นได้ จักษุแพทย์จึงควรรู้เรื่องภาวะแทรกซ้อน เพื่อให้สามารถนำไปประกอบการพิจารณาเลือกวิธีการรักษาแก่ผู้ป่วยโรคต้อหินต่อไป

Complication, Prevention and Management

Complication	Prevention / Management
1. Flat chamber and hypotony	Flat chamber and hypotony caused by overfiltration are best avoided by using a resistance device, an occlusion technique, or viscoelastic agents. A flat chamber with tube–cornea touch and serous choroidal detachment should be managed by early drainage of choroidal effusion and re–formation of the anterior chamber. Viscoelastic can help maintain the chamber. A flat chamber resulting from a complication such as suprachoroidal hemorrhage must be managed based on the clinical setting.
2. Elevated intraocular pressure	<p>Before the ligature around the tube dissolves, there may be a transient elevation of the IOP. It can be prevented by combining a trabeclectomy without MMC with the drainage implant; or it can be managed medically.</p> <p>During the hypertensive phase, the bleb wall becomes congested, causing the IOP elevation.</p> <p>Elevated IOP in the early postoperative period may be due to obstruction of the tube by fibrin, blood, iris, vitreous or silicone oil.</p>

<p>3. Tube–cornea touch</p> <p>4. Tube migration</p> <p>5. Valve malfunction</p> <p>6. Tube or plate exposure or erosion</p>	<p>A generous vitrectomy should be performed if needed. Although it is possible to use Nd : YAG laser to clear and occlusion.</p> <p>Late IOP elevation, especially when the intraocular portion of the tube appears to be patent, is usually due to an excessively thick fibrous capsule. Needling revision can improve function of the encapsulated drainage implant.</p> <p>Avoid by making the anterior chamber insertion parallel with the iris plane and using a tube occlusion technique to avoid a flat chamber. Pars plana insertion avoid this complication.</p> <p>Avoid by meticulous tube placement and coverage. Different materials used to cover the tube may vary in rate of degradation. It may be possible to reposition tube with extraocular manipulation only. A new entry site can be fashioned without disturbing the capsule around the extraocular plate. Some surgeons suture the tube to the sclera with an S–curve in an effort to prevent extraocular scarring from causing tube migration.</p> <p>Valves should be tested for patency prior to insertion of the tube. Several techniques have been described to unclog a valve.</p> <p>Conjunctiva must not be under tension when covering the tube or plate. Most surgeons use a patch graft such as sclera or pericardium to cover the tube. Exposure increases the risk of endophthalmitis. In some settings the device should be removed if adequate coverage can not be achieved.</p>
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7. Suprachoroidal hemorrhage	<p>Early postoperative endophthalmitis, may be successfully treated by immediate removal of the implant and surgical management of the infection, with subsequent placement of a new implant.</p> <p>Endophthalmitis may also occur in the late post-operative course. Exposure of the tube seems to be a major risk factor for these infection. Surgical revision with a patch graft in all cases in which there is an exposed tube is indicated to prevent this complication.</p>
8. Diplopia	<p>Implants with larger plates, especially when implanted in the superonasal quadrant, can interrupt extraocular muscle function and cause strabismus and diplopia. Replacement with a smaller plate design, or transfer to the superotemporal quadrant, which usually relieves the diplopia.</p>
9. Corneal decomposition	<p>This may be caused by corneal tube touch and low grade inflammation around the shunt. If touch is occurring, the surgeon can go in and reposition the shunt so that it is no longer touching the cornea.</p>
10. Suprachoroidal hemorrhage	<p>SCH, or bleeding above the choroid ; between the retina and white of the eye, is a potentially serious, vision threatening complication.</p>

References

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