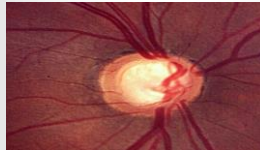


**VITEROUS HERNIATION DURING  
SUB-SCLERAL TRABUCLECTOMY  
CAUSES AND MANAGMENT**

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***Glaucoma :***

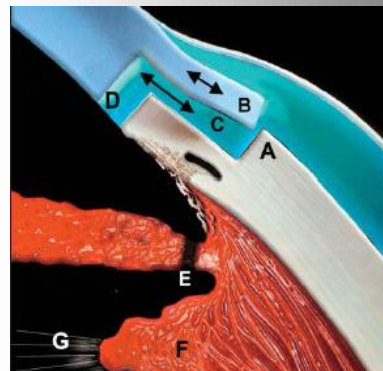
- A multifactorial neurodegenerative disorder
- Causing ganglion cell damage and specific type of optic neuropathy, characterized by
- Progressive structural and functional injury of the optic nerve complex.
- for which the elevated IOP is the primary risk factor.
- The prevalence of glaucoma in the general population? 1.5-2%

**Trabeculectomy** is the gold standard glaucoma surgery that lowers pressure inside the eye when medications or laser have failed to lower eye pressure low enough by making trapdoor under conjunctiva.

The success depends not only on the surgery itself but also on the frequent follow up

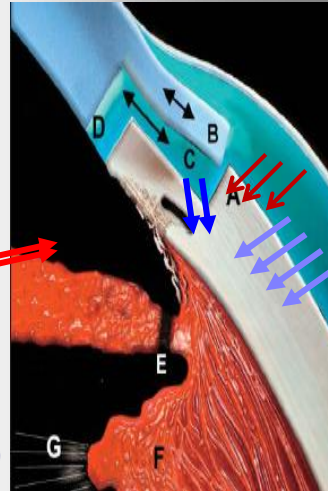
## Factors in judging filtration intraoperatively

1. Thickness of the scleral flap
2. Size of the internal block excised
3. Size of the lamellar scleral flap
4. Degree of scleral flap overlap
5. Tightness of scleral flap closure



## Causes of filtration failure.

1. Blockage of the **internal ostium** (early vs late)
2. Blockage of the external ostium by **tight scleral flap** (early vs late)
3. Blockage of the external ostium by **episcleral membrane** (subconj fibrosis)
4. **Bleb encapsulation**



## Blockage of the internal ostium

### Early

Iris, vitreous, ciliary process, lens capsule, Fibrin, blood clots



### Late:

Fibrovascular or ICE membrane  
Epithelial ingrowth



# Postoperative Complications of Trabeculectomy

## Early Postoperative Complications

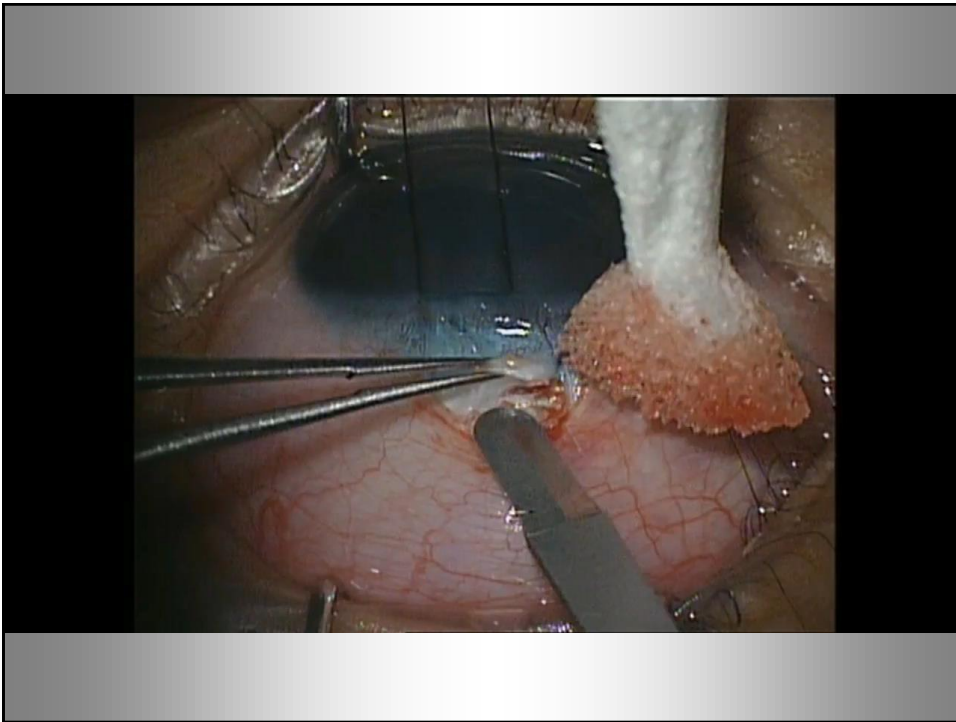
1. Shallow Anterior Chamber
2. Hyphema
3. Wipe-out phenomenon
4. Corneal Decompensation
5. Hypotony Maculopathy
6. Early Blockage of Sclerostomy
7. Complications related to use of MMC.

## Late Postoperative Complications

1. Filtration Failure (nonfunctioning blebs)
2. Late Bleb Leak
3. Excessively Large Bleb
4. Blebitis/Endophthalmitis
5. Chronic Hypotony
6. Cataract Formation and Progression
7. Progressive Glaucomatous Damage

## Intraoperative complications

- Conjunctival buttonhole or tear
- Subconjunctival hge
- Scleral flap buttonhole or disinsertion
- Premature entry to AC
- Lens injury
- Imperforate sclerostomy
- Vitreous loss



Vitreal loss during trabeculectomy is rare occurrence less than 0.5%

**Systemic predisposing factors**

- ↑venous pressure
- valsalva in COPD

**OCULAR FACTORS:**

- Tight eyelids
- Buphthalmous with thin sclera
- Subluxated or dislocated lens
- Aphakia
- History of vitreous loss in the other eye

## Risk factors

- Angle closure glaucoma
- Sturge weber syndrome
- Nanophthalmous
- Integrity of posterior capsule in pseudophakic eyes
- If the sclerostomy created too far posteriorly.

### **Vitreous loss can lead to:**

- Bullous keratopathy
- Iris prolapse , uveitis
- Epithelial and fibrous downgrowth
- R.D , CME
- Vitreous fibrosis and opacification
- Vitreous contraction bands
- Pupillary membrane
- High incidence of endophthalmitis

## Conclusion:

- Trabeculectomy still the gold standard glaucoma surgery.
- Proper preoperative planning and meticulous surgical technique can help make these complications unusual but not totally avoidable.
- Proper dealing with the intraoperative complications can improve the success of filtration surgery.

**Thank You**