

المؤتمر السنوي الدولي للجمعية المصرية  
INTERNATIONAL CONGRESS OF THE

EGYPTIAN OPHTHALMOLOGICAL SOCIETY

**EOS 2023**



## Management of glaucoma in vitrectomized, Aphakic and Aniridic globe

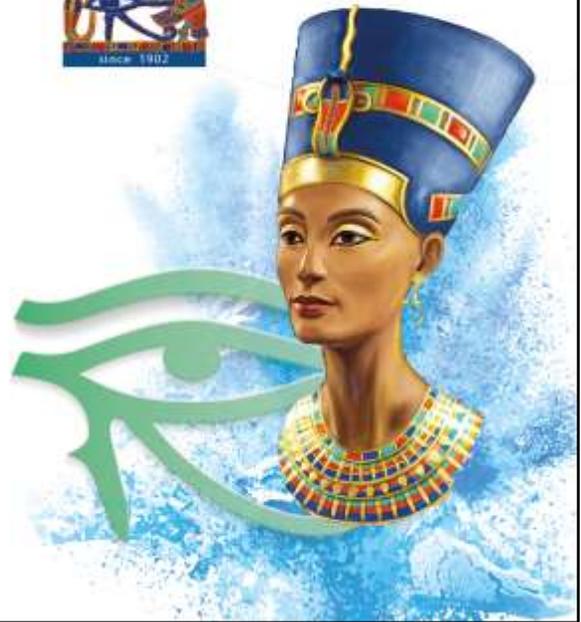
By

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## Clinical presentation

- 30 years old male
- **High myopic** (AXL:30 mm)
- Bilaterally **vitrectomized**
- Right **Pseudophakic**
- Left **Aphakic and Aniridic**
- IOP: **OD**:38 mmHg, **OS**: 32 mmHg on 3 antiglaucoma medications.
- BCVA: **OD**: 6/60, **OS**: 6/36



Ahmed's valve implantation was done to the right (Pseudophakic eye)



Preoperative  
Mannitol IV



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Same day of glaucoma surgery

At Mid Night

Patient was calling

Severe ocular pain

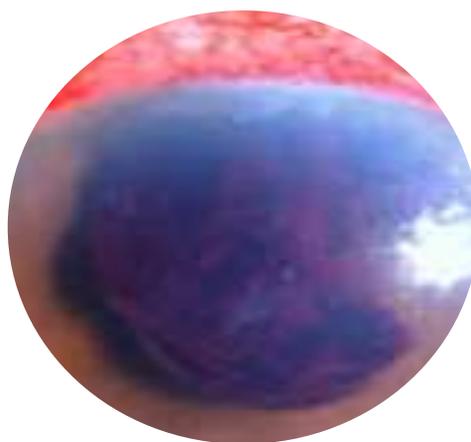
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**Suprachoroidal hemorrhage**



**Suprachoroidal hemorrhage**



Unfortunately the eye was lost



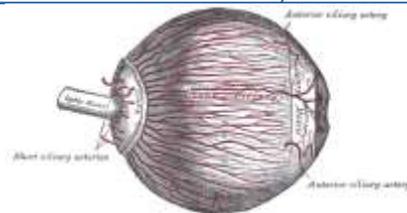
## Suprachoroidal hemorrhage (SCH)

- Rare but sight threatening complication associated with intraocular surgery.
- SCH during the surgery  
Expulsive hemorrhage
- SCH within the postoperative period  
Delayed SCH



## Pathophysiology

- Sudden compression and decompression events.
- Fluctuation in intraocular fluid dynamics and pressure.
- Hypotony
  - Ciliochoroidal effusion leads to
  - Rupture of posterior ciliary arteries.



## **SCH after Glaucoma Surgery**

### **Risk factors**

1. Myopia,
2. Aphakia,
3. Vitrectomized,
4. High preoperative IOP,
5. Sudden decrease in IOP intraoperative,
6. Postoperative hypotony,
7. Hypertension.
8. Smoking.



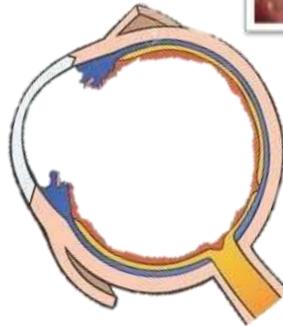
Back to our patient,.....

**The other eye!!!!!!**



## Our patient SCH risk factors

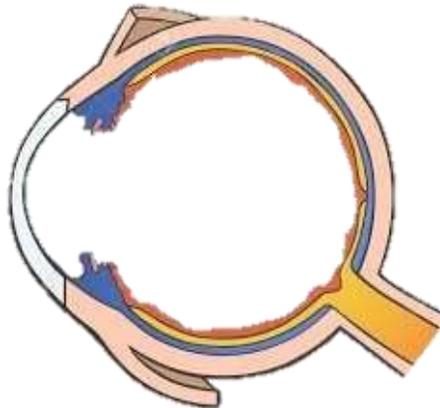
1. Myopia,
2. Aphakia,
3. Vitrectomized,
4. High preoperative IOP,
5. Sudden decrease in IOP intraoperatively,
6. Postoperative hypotony



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Eye became one chamber filled with fluid under high tension



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Doing any filtering surgery....we are puncturing a balloon

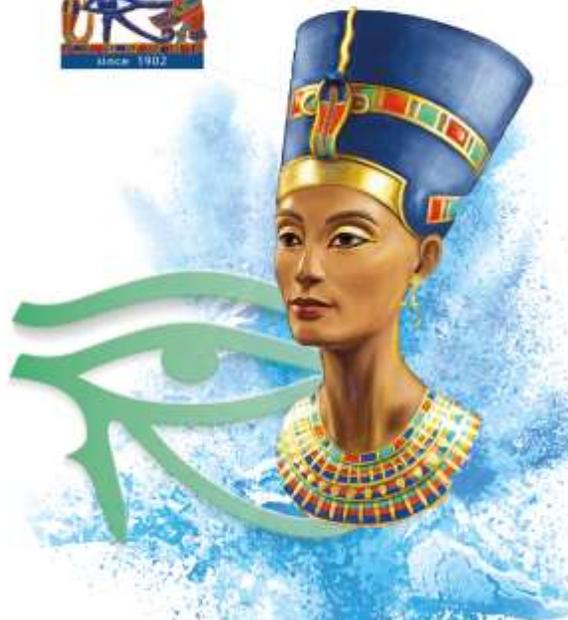


Cyclodiode photocoagulation was done twice

- The IOP still not controlled (30 mmHg)



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## Ahmed's Valve implantation



**Another Glaucoma....Another Filtration surgery ?**

**Should we Risk it-one more time?**



## *Yes, But.....*

**We have to maintain the Globe intraoperative and postoperative**

**without affecting the valve filtration to avoid the valve failure**

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**How to maintain the Globe intraoperative and postoperative??**

**??**

**Healon**

used to maintain anterior chamber in Glaucoma surgery

**Unfortunately**

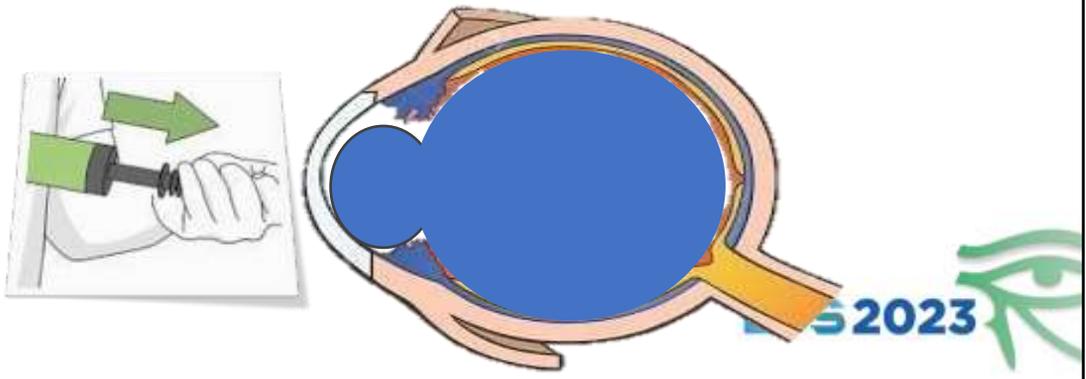
**We can't fill whole globe with healon**

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But we can with

## Inflating the Globe



## By

**1- Fluid air exchange**      Intraoperative

2- Implanting the valve

3- Leave the globe filled with  
**NON EXPANSILE GAS**      Postoperative

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Eye inflated with non expansile gas

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### Non expansile gas has advantage of:

- Maintaining globe for a period
- Allowing filtration being mobile

**This technique maintains the globe intraoperatively and postoperatively Without affecting the valve filtration**

## Our study

We described our surgical technique and experience in 5 patients to

prevent DSCH

vitrectomized, aphakic, and aniridic patients  
with high preoperative IOP

by

the implantation of Ahmed valve and complete filling of the vitreous  
cavity by nonexpansile gas.



### e CASE REPORT/SMALL CASE SERIES

Value of Intravitreal Gas Injection With Ahmed Valve  
Implantation in the Prevention of Suprachoroidal  
Hemorrhage in Aphakic, Aniridic, and Vitrectomized  
Glaucomatous Eyes: A Pilot Study

*Heba M.A. El-Saied, MD, FRCS (Glasg) and Abdussalam M. Adullatif, MSC*



## *Blowing the globe with gas*

could prevent the development of SCH in high-risk eyes

## *Saving the eye*

