

# Highlights On The Management Of Phacomorphic Glaucoma

---

Ahmed Aboueleinein

## What is phacomorphic glaucoma?

---

It is a secondary angle closure glaucoma due to

- lens intumescence
- Advanced cataract
- or traumatic cataract

Leading to pupillary block and angle closure

Not uncommon problem which needs several points to be put in consideration

➤ **Phacomorphic glaucoma / Acute phacomorphic angle closure?**

## Clinical Presentation

- sudden pain
- Blurred vision
  - **sudden and more than that due to cataract**
- Halos
- High IOP **usually > 35** mmHg
- Middelated Sluggish irregular pupil
- Shallow central AC
- Lens enlargement and forward displacement



emedicine.Medscape.com

AHMED ABOUELEINEIN

## Aetiology & Predisposing Factors

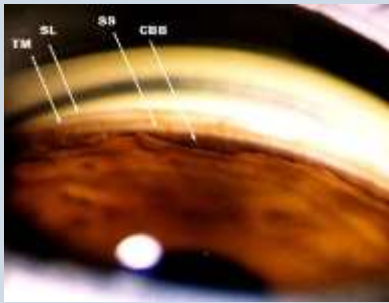
- Intumescent cataract
- Traumatic cataract
- Rapidly developing senile cataract
- Smaller hyperopic eyes with a larger lens and shallower AC
- Glaucoma and angle closure
- Plateau iris
- Uveitic glaucoma



eyesurgin.com

AHMED ABOUELEINEIN

# Gonioscopy



AHMED ABOULEINEIN

# UBM/ anterior segment OCT

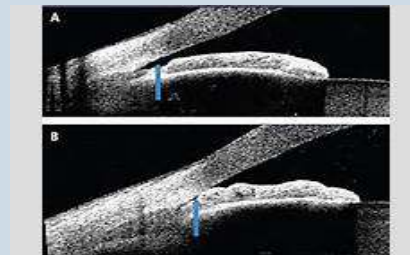
- Diagnoses
- Post P.I assessment

UBM



imgarcade.com

AS-OCT



AHMED ABOULEINEIN

## Conventional Initial Management

---

### Aims at rapidly reducing IOP

- Preventing further damage to ONH
- Preventing synechiae
- Preparing the eye for laser P.I to relieve pupillary block
- Preparing the eye for a safely performed cataract extraction

AHMED ABOUELEINEIN

## Conventional Initial Management

---

**Medical Treatment**    Address the acute nature of acute angle closure

Topical hypotensive drugs

    Miotics / cycloplegics ???

    Prostaglandins ???????

Systemic drugs (oral / IV hyperosmotics)

AHMED ABOUELEINEIN

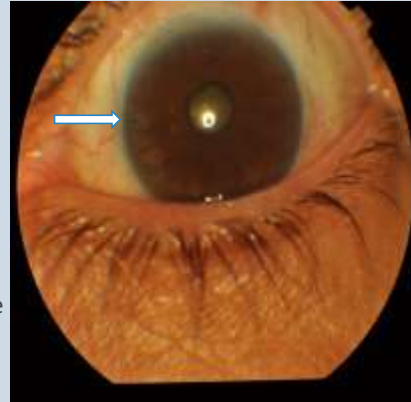
## Secondary Management

### ▪ Argon laser peripheral iridoplasty (ALPI)

- Early interference before permanent synechiae
- In preparation for laser PI
- safe & effective

### ▪ Laser PI      Argon Vs Yag

- Preferred after ALPI
- Local steroids & ocular hypotensives are necessary after the
- procedure



AHMED ABOUELEINEIN

## Gonioscopy / UBM / OCT

For further management

1. If the angle is **markedly widened** → pupillary block is the main mechanism
2. If the angle **isn't deepened** → forward displacement of the lens is the causative factor

AHMED ABOUELEINEIN

## Definitive Treatment

- Lens extraction
- Phaco – ECCE – manual small incision cataract surgery
- Phaco trabeculectomy
- PP vitrectomy + cataract extraction



### points to be considered:

- ✓ A 30-gauge needle on a syringe to aspirate the liquefied cortex may be needed
- ✓ Trypan blue in white mature cataract
- ✓ Viscoelastic

AHMED ABOULELEINEIN

## Phaco versus phacotrab in patients with chronic angle closure glaucoma

Chandrima Paul, Subhrangshu Sengupta, Ajoy Paul

Journal of Clinical Ophthalmology and research – May-Aug 2014 – Volume 2 – Issue 2

Group A phacoemulsification

Group B phacotrab. With MMC

**No statistically significant in IOP control, glaucomatous progression or final V.A.**

**Post surgical complications were more frequently seen after phacotrabeculectomy**

AHMED ABOULELEINEIN

# Combined phacotrabeculectomy versus separate procedures

## Phacotrabeculectomy versus Trabeculectomy in PACG

*I.O.P.*

3 years post-op success rate 56% in the phacotrabeculectomy group

54% in the trabeculectomy group

Success defined as IOP reduction more than 20% or IOP lower than 15mmHg

Institute of Clinical Medicine Taipei, Taiwan

**The combined group didn't require any IOP lowering surgical procedures, whereas 54% of eyes in the trabeculectomy group required cataract extraction or IOP lowering surgical procedures (P< .001).**

AHMED ABOUELEINEIN

# Phacotrabeculectomy: one site or Two?

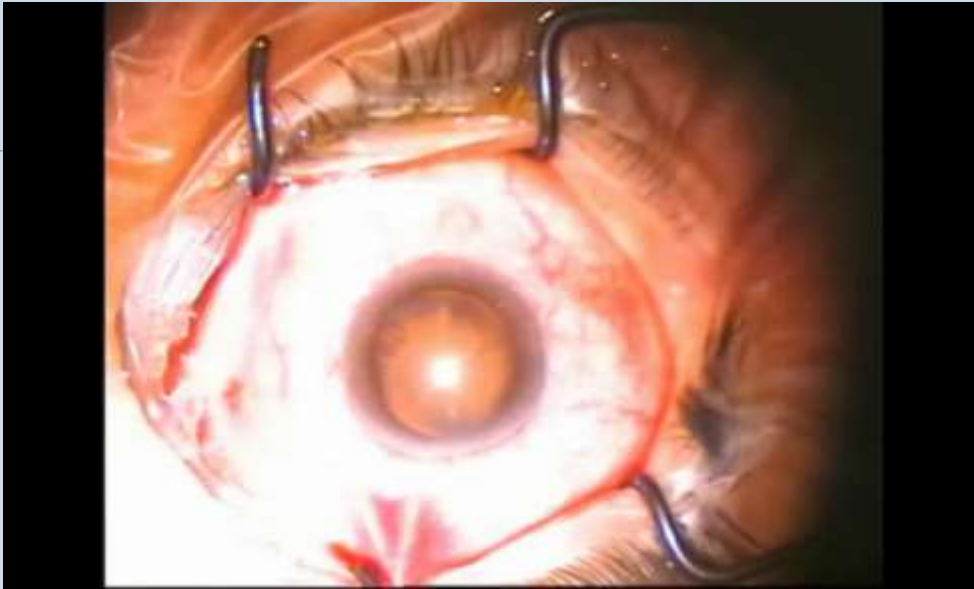
**IOP** Both techniques equally effective in both groups (average 8.1 mmHg).

**V.A. One site** 57% improved, 27% the same, 16% deteriorated

**Two site** 69% improved, 25% the same, 6% deteriorated

Cataract and reflective surgery today, May 2010

AHMED ABOUELEINEIN



AHMED ABOULEINEIN

## Message

---

- Early interference to reduce IOP → Better prognosis
- Gonioscopy/UBM/OCT are valuable tools in diagnosis and assessment
- Medical treatment      **miotics**/ midriatics
- Argon laser trabeculoplasty followed by YAG PI as early as possible
- Definitive treatment → Cataract extraction ± trabeculectomy
- Lens material aspiration / Trypan blue in white cataract
- PP Vitrectomy to reduce IOP may be required

AHMED ABOULEINEIN



## Message

---

### Cataract extraction ± Trab

- Outcome of separate and combined procedures are almost equal
- Endothelial cell damage is more in separately operated procedures
- Combined procedure requires less postoperative drugs and surgical procedures
- Combined procedure with two sites is more safe and has more IOP lowering effect.

AHMED ABOULEINEIN

*Thank You*

---

AHMED ABOULEINEIN