

# Acute Pupillary Block Secondary to Fibrin Membrane Formation Following Eyhance IOL Implantation in a Diabetic Patient

*Successful Conservative Management*

**Nurullah Coskuner, MD**

**Fatma Sumer, MD**

Department of Ophthalmology

Recep Tayyip Erdoğan University, Faculty of Medicine, Rize, Turkey



# Financial Disclosure

The author has no financial or proprietary interest in any material or method mentioned in this presentation.



# Introduction

## Fibrin Pupillary Block

- Rare post-cataract complication
- Fibrin membrane occludes pupil
- Aqueous trapped → IOP elevation
- Sight-threatening if untreated

## Risk Factors

- **Diabetes mellitus**
- Uveitis history
- Complicated surgery
- Blood-aqueous barrier dysfunction

## Purpose

To report a case of fibrin membrane-induced pupillary block with acute IOP elevation following Eyhance enhanced monofocal IOL implantation in a diabetic patient, successfully managed with topical therapy alone.

# Case Presentation

## Patient

### 56-year-old female

- Diabetes mellitus
- Diabetic retinopathy

## Surgery

Uneventful phacoemulsification  
**Eyhance IOL (J&J Vision)**  
Left eye

## POSTOPERATIVE DAY 3 — EMERGENCY PRESENTATION

BCVA

**0.05**

IOP

**45 mmHg**

Findings

- Dense fibrin membrane occluding pupil
- Shallow AC with pupillary block
- Acute visual loss + ocular discomfort

# Management

## Intensive Topical Therapy

### Anti-inflammatory:

- Prednisolone acetate 1% (Pred Forte)  
Hourly → tapered over 4 weeks

### IOP-lowering:

- Brimonidine 0.2% (Alphagan) BID
- Dorzolamide/Timolol (Cosopt) BID

## NOT Required

- ✗ Nd:YAG laser iridotomy
- ✗ AC washout
- ✗ Intracameral tPA
- ✗ Any surgical intervention

**Conservative approach was sufficient!**

*Close monitoring: Serial IOP measurements + anterior segment examination over 4 weeks*

# Results — Complete Resolution at 4 Weeks

Parameter	POD 3 (Initial)	Week 4 (Final)
BCVA	0.05	1.0 (20/20)
IOP	45 mmHg	15 mmHg
Fibrin Membrane	Dense, occluding	Completely resolved
Anterior Chamber	Shallow, block	Deep, normal

IOL Status: Eyhance well-centered in capsular bag | No decentration or tilt | Anti-glaucoma meds discontinued

# Conclusions

1

Fibrin pupillary block is a rare but serious early complication after premium IOL implantation

2

Diabetic patients are at increased risk due to compromised blood-aqueous barrier

3

Despite severe presentation (IOP 45, VA 0.05), aggressive topical therapy alone achieved complete resolution

4

Close monitoring in first postoperative week is essential in diabetic patients