



## POST OPERATIVE RECURRENT FIBRINOUS ANTERIOR UVEITIS- A CASE REPORT

### Ophthalmology

<b>Dr. Kashmina Kumar*</b>	2 <sup>nd</sup> year Post Graduate Trainee, Regional Institute Of Ophthalmology, Gauhati Medical College and Hospital, Guwahati. *Corresponding Author
<b>Dr. Pankaj Baruah</b>	Associate Professor, Regional Institute Of Ophthalmology, Gauhati Medical College and Hospital, Guwahati.
<b>Dr. Manjit Boro</b>	3 <sup>rd</sup> year Post Graduate Trainee, Regional Institute Of Ophthalmology, Gauhati Medical College and Hospital, Guwahati.

### KEYWORDS

#### INTRODUCTION

After cataract extraction, nearly all eyes exhibit some degree of intraocular inflammation.

With uncomplicated cataract surgery and the use of postoperative topical corticosteroids and/or NSAIDs, most eyes are typically free of inflammation by 3-4 weeks postoperatively.(1)

Sometimes a fibrinous inflammatory response may persist or become chronic due to increased vascular permeability of the iris vasculature due to intra operative prolonged manipulation or due to individual specific immune reactions.

Post operative newly formed synechias should be treated with high doses of topical, transeptal steroids. Furthermore the use of lytic cocktails ( atropine, neosynephrine, phenylephrine) may be indicated. The injection of tissue plasminogen activator into the anterior chamber has been suggested within the first few weeks after occurrence of severe synechiae formation. However, compared with its capacity to fibrinolysis, this technique is less effective to achieve complete synechiolysis.(2)

Occasionally, uveitis occurring after cataract surgery can be severe enough to be confused with infectious endophthalmitis, although hypopyon and severe pain are rare in patients with non infectious post surgical uveitis.

However, some infectious agents, such as propionibacterium acnes, may produce low grade post surgical endophthalmitis, which may take months to develop.(3)

Low-grade inflammation lasting more than 4 weeks raises the possibility of chronic infection, retained lens fragments, or other causes of chronic inflammation such as IOL malposition.

The presence of vitritis or a hypopyon warrants investigation to determine the source of inflammation and to rule out an infectious cause).(1)

It is especially important in the post operative period to differentiate infectious causes of uveitis to other causes of inflammation because bacterial and fungal endophthalmitis require prompt treatment with specific anti microbial therapy.(1)

Some Causes of Postoperative Intraocular Inflammation are Acute aerobic bacterial endophthalmitis, Sterile endophthalmitis, Increased activity of previous uveitis, Phacogenic (lens-related) uveitis, Toxic reaction to intraocular lens, Endophthalmitis caused by Propionibacterium acnes or other anaerobic organisms, Iris-ciliary body irritation related to physical contact with intraocular lens, Persistent anterior uveitis after ocular surgery, New onset of idiopathic uveitis.(3)

Here we present a case of post operative recurrent anterior uveitis of most probable non infectious origin predominantly showing fibrinous reaction with occlusio pupillae.

#### Case Presentation

A 76 years female with Immature cataract both eyes with no known

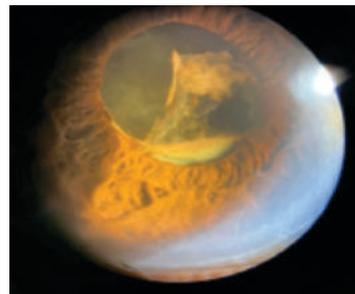
systemic illness underwent manual SICS of Left eye and a single piece hydrophobic PMMA PCIOL was inserted. Following that patient had absolutely uneventful course with a corrected vision of 6/9. After 6 weeks Right eye SICS with same category PCIOL was inserted under similar conditions with post operative day 1 vision of 6/12, cornea was clear, and anterior chamber (AC) was well formed with occasional cells. Patient was discharged on Gatifloxacin-Dexamethasone eye drops 6times/day for 2 weeks and E/D Nepafenac 3 times/ day.

On post operative day 17 patient presented with vision of perception of light on Right eye with mild photophobia and no pain. On eliciting proper history she was applying all drops as prescribed. No History of Trauma.

On examination IOP was 16 mm Hg, conjunctiva mild congested, Cornea clear, AC had cells of +3 and flare +1 (SUN grading), miosed (2 mm) pupil, and a fibrinoid membrane attached at the pupillary edges blocking the pupillary opening. Her left eye (LE) was unremarkable.

USG B scan Right showed mild vitreous reflectivity, rest within normal limits. AC tap was done on day 2 of presentation where cytology showed inflammatory cells. Gram staining with culture sensitivity showed no organisms growth at the end of 3 days.

She was prescribed Inj. Dexamethasone (4mg/2ml) 2ml OD for 3 days, E/D prednisolone 1% and moxifloxacin 0.5% tapering doses for 4 weeks, E/D Atropine 1% and Brimonidine 0.1% for 1 week. And on 3rd day of her presentation Nd: YAG laser was used to disrupt the membrane anterior to the IOL first and then the posterior membranes using 6 shots of 1.2 mJ at 2 sittings 1 week apart. She was kept under constant IOP monitoring which showed no elevation.



Image(1) on day 2 of performing Nd:YAG laser Membranectomy.

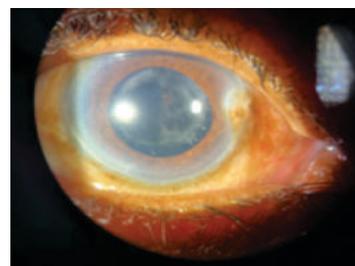
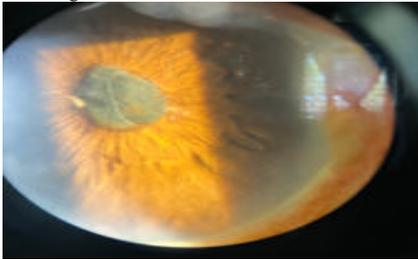


Image (2) after 2 weeks since her first presentation.

Within 2 weeks her corrected vision restored to 6/12 until after approximately 3 months where patient again had a recurrence with similar presentation with Occlusio Pupillae of the same eye. She had no pain and only complained of Diminution of vision. She had vision of Hand movement positive. Cornea clear, AC had cells of +3 & Flare of +1 (SUN Grading), pupil was sluggishly reacting to light and membrane covering the pupillary opening. IOP was 18 mm Hg. Left eye continues being normal.

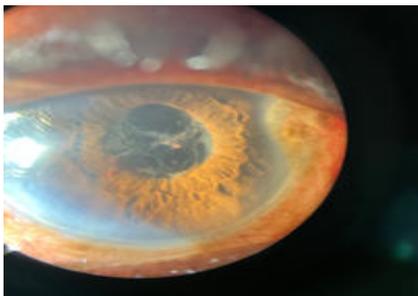


**Image (3) showing the picture of 2<sup>nd</sup> presentation**

Mantoux test, RA Factor, ANA, HLAB27 tested negative. Routine blood values were normal. USG B scan again showed mild vitreous reflectivity.

Before intervening and coming to a diagnosis of post operative Recurrent Fibrinous Anterior Uveitis of probable non infectious origin another AC tap was done to rule out resurfacing of any infection but showed no growth of any micro organisms in culture at the end of 14 days.

Under effective doses of systemic and topical steroid Nd:YAG laser pupiloplasty was done with 1.2 mJ. Patient was kept under tapering doses of Prednisolone 1% + Gatefloxacin 0.30% for 1 month and then with E/D loteprednol 0.5% and E/D Cyclosporin 0.1% for another month.



**Image (4) after performing laser membranectomy with pupiloplasty**

Her fundus shows mild floating vitreous opacity with Average sized disc, vessel normal with macular area having a few drusens. Now, after 3 months since her 2<sup>nd</sup> episode the patient is on remission phase and enjoys a corrected vision of 6/12 with normal IOP.



**Image (5) picture after 3 months since the 2<sup>nd</sup> episode.**

#### **DISCUSSION:**

As twice AC tap culture report did not yield any positive results. And on performing both anterior and posterior membranectomy with Nd:YAG laser there was no flaring up of inflammation or features typical of endophthalmitis was seen. And throughout the process there was no significant episode of vitritis. Hence, a diagnosis of recurrent Post Operative Fibrinous Anterior Uveitis of most probable non infectious origin was made. However the exact pathological cause leading to this could not be made out.

Such cases are usually well controlled by judicious doses of topical, Trans septal or systemic steroids. Disrupting the membrane by Nd:YAG laser results in fast resorption and even pupillary Dilatation. Chronic Non infectious inflammatory reaction post operatively though rare but with prompt management the visual prognosis and patient satisfaction is remarkable.

#### **REFERENCES**

1. BCSC 2022-23 series: Section 11- Lens & Cataract
2. Heiligenhaus A, Steinmetz B, Lapuente R et al (1998) Recombinant tissue plasminogen activator in cases with fibrin formation after cataract sur-gery: a prospective randomized multicentre study. Br J Ophthalmol 82:810-815
3. Whitcup and Nussenblatt's UVEITIS Fundamentals and Clinical Practice, 5<sup>th</sup> edition.