

# The Glittering White Masquerade Of An Intra-Ocular Lens- A Case Report

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## Abstract

**Purpose:** To understand the importance of clinical examination for identification of an opaque IOL

**Case:** A 70-year-old female came to our out-patient department with complaints of decreased vision in her right eye from the last 6 months with uncorrected visual acuity of hand movements. A preliminary anterior segment examination was done by a resident under training who had sent the patient for dilatation following which the patient was then evaluated by a senior surgeon and to the surprise of the examiner; it was an opaque IOL and not a mature cataract. IOL explantation was done followed by a hydrophobic foldable IOL implantation in this case. Patient regained vision of 6/12 with pinhole (PH) 6/9 in the immediate post-operative period.

**Conclusion:** Therefore, hurriedly running through the anterior segment may lead to missed findings like these and the patient would have been posted for a cataract surgery thereof. Such cases of opaque IOLs are not uncommon but due care needs to be taken while examining such patients.

**Keywords:** Mature Cataract, Opaque IOL, Masquerade

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## I. Introduction:

The opacification of hydrophilic acrylic IOLs is a serious complication of unknown etiology, with the only effective treatment being lens explantation and replacement, preferably with a lens of some different material.<sup>1</sup> IOL exchange for opacified lens can be difficult and challenging. Surgery may not always go according to the pre-operative plan and the surgeon must be ready with alternatives during surgery. We present a case of IOL opacification that posed challenges in diagnosis and management.

## II. Case:

A 70-year-old female came to our out-patient department with complains of decreased vision in her right eye from the last 6 months with uncorrected visual acuity (UCVA) of hand movements with perception of light and projection of rays accurate in all quadrants. A preliminary anterior segment examination was done by a resident under training who had sent the patient for dilatation following which the patient was then evaluated by a fellow surgeon and to the surprise of the examiner, it was an opaque IOL (Fig-1) and not a mature cataract. The other eye (LE) was already operated 2 years back with good best corrected vision improving to 6/9 with glasses. The eye in question i.e. the right eye (RE) had decreased vision with UCVA of hand movements with no improvement. So, it was labeled to be a mature cataract (Fig-1) which narrates the way that **“All that glitters white may not always be Mature Cataract-It was an Opaque IOL indeed”**. When asked about, the patient narrated the whole history of RE cataract surgery done 4 years back and the medical records revealed that a hydrophilic intra-ocular lens was implanted then, which underwent opacification.

## III. Management:

IOL explantation with exchange in the right eye was planned after thorough examination with RE B-scan suggestive of normal ONH/RCS (optic-nerve head/retinosclerlochoroidal) complex, which was followed by optical biometry and counseling. During surgery the IOL was found to be adherent to the bag with extensive fibrosis of the capsule to the IOL. The adhesions were removed using iris repositor in an attempt to save the bag. The haptic was removed out of the bag followed by its optic and then the second haptic in a fashioned way not to put stress on the zonules. There was no vitreous disturbance during these maneuvers.

So, IOL explantation was done followed by a hydrophobic foldable IOL implantation in this case (Fig-2). Patient regained vision of 6/12 with PH 6/9 in the post-operative period. Patient was put on topical steroids and antibiotic combination in a weekly tapering dose over a period of four weeks with follow-up visits at 1 week and 1 month.

#### IV. Discussion:

Opacification of IOL happens with hydrophilic acrylic lenses that further needs to be explanted. This opacification results from calcium phosphate deposits on the surfaces or the internal substance of the lens and sometimes due to the metabolic disturbances of the patient too.

#### V. Literature Review

Dr. Werner explained that surface deposits were seen with two major lenses.

**Hydroview:** The Hydroview IOL, developed by Bausch & Lomb Surgical, was introduced outside the United States in 1995, and opacification was not seen with the early model of this lens. In 1997, Bausch & Lomb changed the lens packaging to add the SureFold holder/folder and a silicone-sealing gasket Hydroview 1.0 IOL. The Hydroview was approved for use by the FDA in 1999, and in May of that year the manufacturer first received reports about “clouding” of a small number of lenses.

In the 40 explanted Hydroview 1.0 lenses that Dr. Werner and her colleagues analyzed, the opacification appeared anywhere from five to 48 months after cataract surgery.<sup>2</sup>

**Memory Lens:** This lens, developed by Ciba Vision, was introduced on the international market in 1994. In 1999, episodes of sterile hypopyon led the manufacturer to recall some lots of the Memory Lens (models U940A and U940S) in 2000.<sup>3</sup>

The dystrophic calcification cases associated with the Hydroview, MemoryLens, SC60B-OUV, and Aqua-Sense IOL designs were considered to have a multifactorial origin.<sup>4</sup>

A “patient” factor, related to some kind of metabolic imbalance or breakdown of the blood–aqueous barrier, in combination with other factors, have been implicated.<sup>5</sup>

#### What to do:-

**Importance of History taking:** To avoid misdiagnosis and unnecessary procedures, always consider IOL opacification when a patient presents with visual loss after cataract surgery. These patients don't always have terrible vision, they all complain that it is a gray-brown, foggy vision with no contrast.

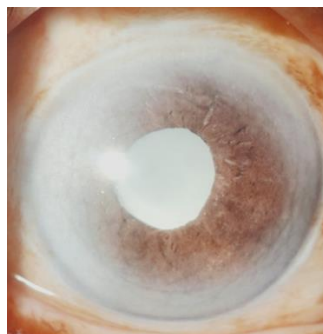
We should try to find out if they have a hydrophilic acrylic lens. The patient may have saved the IOL card from their cataract surgery or ask for a discharge summary. One should do a careful high-power, slit-lamp examination. This will indeed help to differentiate between deposits present on the external surfaces of the lens, opacities within the lens or opacities at the level of the posterior capsule or the vitreous

#### VI. Conclusion:

If one is not sure, one can send the patient to somebody who can recognize an opacified IOL instead of jumping to the conclusion that the person needs a YAG laser capsulotomy or it's a case of mature cataract. We all learn each day, careful history taking, clinical examination is still by far the best modality of providing quality care to the patient. Learning is forever but not the mistakes.

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**Fig-1 shows opaque Intra-ocular lens**



**Fig-2 shows pre-operative, intra-operative and post-operative image of IOL explantation with exchange**