

CASE IMAGE

First case of sunflower pattern calcific deposits and posterior capsular opacification on a pseudophakos

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Abstract

Calcification of the intraocular lens is an uncommon phenomenon that usually follows an uncomplicated surgery. Here, the authors report the first case of a 66-year-old male patient who presented with defective vision and was diagnosed with sunflower pattern calcific deposits and Elschnig pearl pattern posterior capsular opacification in the right eye.

KEYWORDS

calcific deposits, posterior capsular opacification, Pseudophakos, sunflower pattern

1 | CASE DESCRIPTION

A 66-year-old male patient presented with blurred vision in the right eye (OD) for the past 3 months. He underwent both eyes (OU) cataract extraction and intraocular lens (IOL) implantation 2 years ago. Snellen's corrected distance visual acuity was 20/20 in OU. Intraocular pressure was 16 mmHg in OD and 20 mmHg in the left eye (OS). Slit-lamp examination in the OD revealed fibrosed anterior capsulorhexis margin, whitish sunflower pattern calcific deposits on the anterior surface of the IOL, and Elschnig pearl pattern posterior capsular opacification (PCO) (Figure 1A–D), and OS was pseudophakia. Dilated funduscopy with a +90D lens was normal in OU. For visual rehabilitation, the patient was advised a Nd: YAG

laser capsulotomy in OD. Calcific deposits on the IOL are a rare multifactorial phenomenon. It can occur secondary to host environmental factors or lenticular material variations. The deposits usually begin from the surface and progress towards the lens matrix.¹ PCO is the most common postoperative complication after cataract surgery which occurs secondary to proliferation, differentiation, and migration of bladder cells.² Histopathological confirmation of IOL calcification can be done by Von Kossa and Alizarin stain. Optical coherence tomography has also been employed to study the calcifications. As per the best of our knowledge, this is the first case of the coexistence of sunflower pattern calcific deposits and PCO in the same eye. Ophthalmologists should keep in mind this rare coexistence while evaluating such cases.

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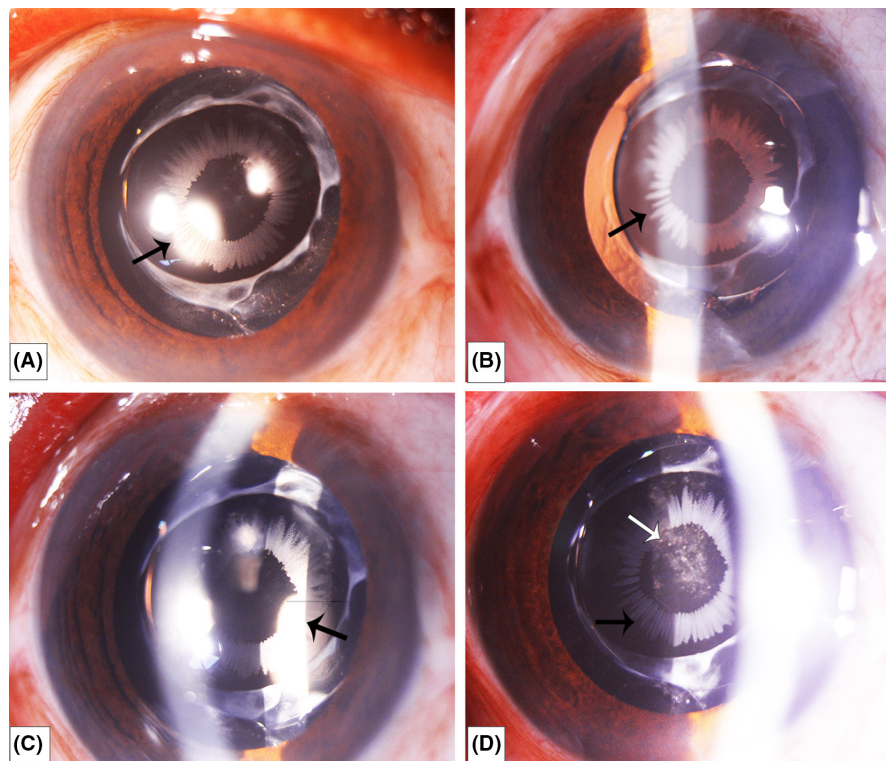


FIGURE 1 Slit-lamp image (A), retro illumination image (B), a 60-degree slit view focused on the IOL (C), and a 60-degree slit view focused on the posterior capsule (D) of the patient's right eye depicting fibrosed anterior lens capsulorhexis margin, sunflower pattern deposition of calcific material on the IOL and Elschnig pearl PCO on pseudophakos

AUTHOR CONTRIBUTIONS

KK involved in concept, design, manuscript writing, referencing, literature review, and final approval of the manuscript. SM involved in design, manuscript writing, image collection, referencing, and literature review. BG involved in concept, design, manuscript writing, referencing, literature review, final approval, and supervision.

ACKNOWLEDGEMENT

Dr. Om Parkash Eye Institute, Amritsar, Punjab 143001, India, Aravind Eye Hospital and Post Graduate Institute of Ophthalmology, Pondicherry 605007, India.

CONFLICTS OF INTEREST

None declared.

DATA AVAILABILITY STATEMENT

The patient details are available in the electronic medical records and can be made available from the authors on request.

ETHICAL APPROVAL

At our institute, case reports, images, and case series are exempted from IRB approval and the research followed the tenets of the Declaration of Helsinki.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

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REFERENCES

1. Rezaei-Kanavi M, Javadi MA, Mirbabaei-Ghafghazi F. Intraocular lens calcification: a clinicopathologic report. *J Ophthalmic Vis Res.* 2009;4(2):122-124.
2. Raj SM, Vasavada AR, Johar SR, Vasavada VA, Vasavada VA. Post-operative capsular opacification: a review. *Int J Biomed Sci.* 2007;3(4):237-250.

How to cite this article: Kaur K, Mishra S, Gurnani B. First case of sunflower pattern calcific deposits and posterior capsular opacification on a pseudophakos. *Clin Case Rep.* 2022;10:e06345. doi: [10.1002/ccr3.6345](https://doi.org/10.1002/ccr3.6345)