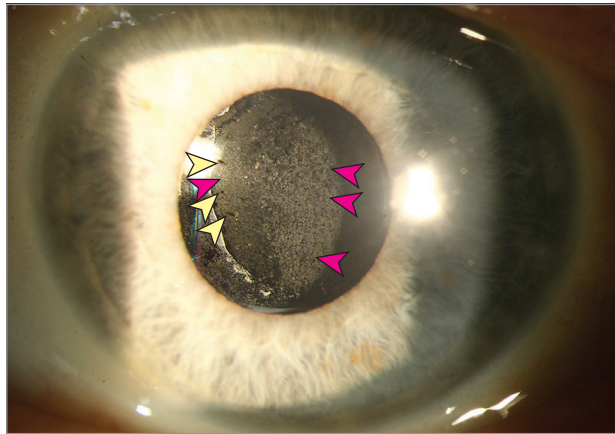


## Ophthalmic Images

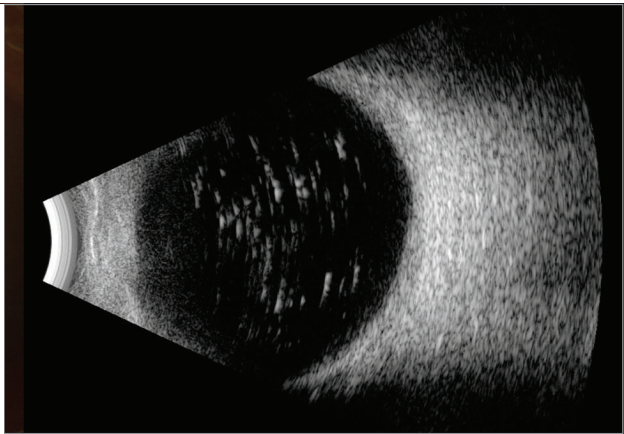
## Dystrophic Calcification in a 3-Piece Silicone Intraocular Lens

Anvesh Annadanam, MD; Boonkit Purt, MD

A Slitlamp photograph of opacified IOL



B B-scan ultrasonography



**Figure.** A, Slit lamp photograph of opacified intraocular lens (IOL) with lens pitting (yellow arrows) and areas of dystrophic calcification (red arrows). B, B-scan ultrasonography image with bright vitreous opacities indicating asteroid hyalosis.

**A 66-year-old patient** presented for 1 year of foggy vision and glare in the left eye with a visual acuity of 20/25. More than 10 years prior, he had cataract surgery with placement of a 3-piece, silicone, Tecnis Z9002 (Johnson & Johnson Vision) 24.0-diopter (D) lens. Examination was notable for diffuse granular-appearing posterior lenticular vs capsular opacification and asteroid hyalosis. A laser capsulotomy was performed without resulting symptomatic improvement. Repeated examination showed persistent

granular opacity and capsulotomy-related lens pitting (**Figure**). The lens was thought to have developed dystrophic calcification from the deposition of apatite crystals.<sup>1</sup> This has been reported in silicone lenses, related to underlying asteroid hyalosis found in more than 85% of patients with this condition.<sup>2,3</sup> A lens exchange was performed with an expanded-polytetrafluoroethylene suture scleral-fixed MX60E (Bausch + Lomb) 24.0-D lens with resolution of symptoms. A similarly symptomatic but pathologically different phenomenon, snowflake degeneration, is described in polymethyl methacrylate lenses caused by historic manufacturing processes.<sup>4</sup>

## ARTICLE INFORMATION

**Author Affiliations:** Department of Ophthalmology and Visual Sciences, University of Michigan, Ann Arbor (Annadanam, Purt); Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, Maryland (Purt).

**Corresponding Author:** Boonkit Purt, MD, Department of Ophthalmology and Visual Sciences, University of Michigan, 1000 Wall St, Ann Arbor, MI 48105 (boonkitp@med.umich.edu).

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## REFERENCES

1. Kanclerz P, Yildirim TM, Khoramnia R. Microscopic characteristics of late intraocular lens opacifications. *Arch Pathol Lab Med*. 2021;145(6):759-767. doi:10.5858/arpa.2019-0626-RA
2. Foot L, Werner L, Gills JP, et al. Surface calcification of silicone plate intraocular lenses in patients with asteroid hyalosis. *Am J Ophthalmol*. 2004;137(6):979-987. doi:10.1016/j.ajo.2003.12.047
3. Stringham J, Werner L, Monson B, Theodosis R, Mamalis N. Calcification of different designs of silicone intraocular lenses in eyes with asteroid hyalosis. *Ophthalmology*. 2010;117(8):1486-1492. doi:10.1016/j.ophtha.2009.12.032
4. Apple DJ, Peng Q, Arthur SN, et al. Snowflake degeneration of polymethyl methacrylate posterior chamber intraocular lens optic material: a newly described clinical condition caused by unexpected late opacification of polymethyl methacrylate. *Ophthalmology*. 2002;109(9):1666-1675. doi:10.1016/S0161-6420(02)01122-3