Published in final edited form as:

JAMA Ophthalmol. 2015 September ; 133(9): e151433. doi:10.1001/jamaophthalmol.2015.1433.

Silicone Oil Retention Sutures for Retinal Detachment Repair Following Traumatic Aniridia, Aphakia, and Ruptured Globe

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A man in his mid-20s with a history of left traumatic corneal laceration and open-globe repair presented with hyphema, corneal edema, traumatic aphakia, iris loss, vitreous hemorrhage, and funnel retinal detachment with proliferative vitreoretinopathy. He underwent scleral buckling, anterior chamber washout, penetrating keratoplasty with temporary keratoprosthesis, 23-gauge pars plana vitrectomy, membrane peeling, endolaser, and silicone oil (SO) tamponade with retention sutures placed at the iris plane (Video and Figure, A).¹ At 1 month following surgery, intraocular pressure was 15 mm Hg, visual acuity was hand motions, and the retina was attached. High-frequency ultrasonographic biomicroscopy revealed fibrin in the anterior chamber as well as SO interfaces with the aqueous fluid and retention sutures (Figure, B). The concave shape of the SO-aqueous interface is due to high surface tension of the SO against the retention sutures. This finding represents successful sequestration of the SO from the anterior chamber.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

Funding/Support: Dr Rao is supported by grant K12EY022299 from the National Institutes of Health.

Role of the Funder/Sponsor: The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

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Video at jamaophthalmology.com

Conflict of Interest Disclosures: All authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

Figure.

A, Silicone oil retention sutures (arrowheads) placed during retinal detachment repair. B, High-frequency ultrasonographic biomicroscopy revealed the sutures (black arrowheads) and the silicone oil–aqueous interface (white arrowheads).