



Minimally invasive scleral fixation technique for relocation of subluxated single-piece acrylic foldable intraocular lens with four haptics

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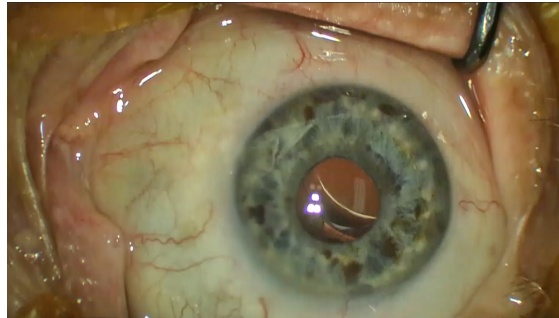
Purpose:

To present a case report of a minimally invasive scleral fixation technique for relocation of a subluxated single-piece, four-haptic, acrylic, foldable intraocular lens (IOL).

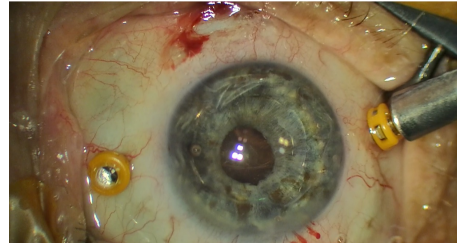
Method:

An 82-year-old male was presented with an IOL sublocation in his right eye. His uncorrected (UDVA) and best-corrected distance visual acuity (BCDVA) were counting fingers and 0.6logMAR, respectively.

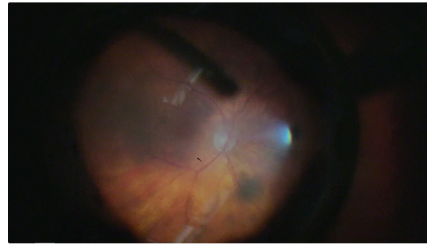
He underwent surgical relocation of the subluxated single-piece, four-haptic, acrylic, foldable IOL with scleral fixation.



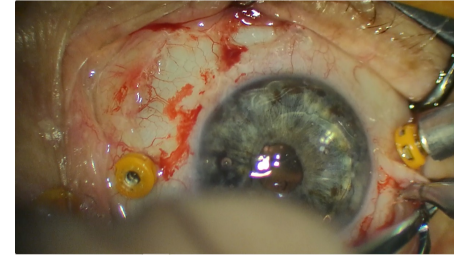
Surgical steps



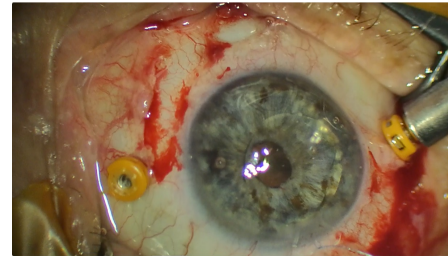
1. The IOL was brought into the anterior chamber.



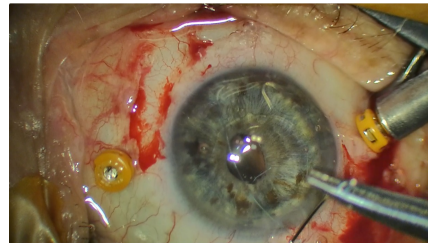
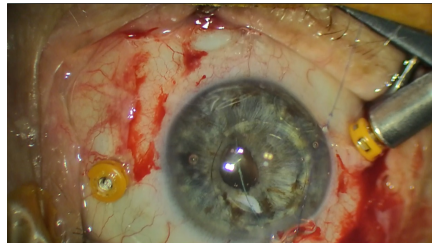
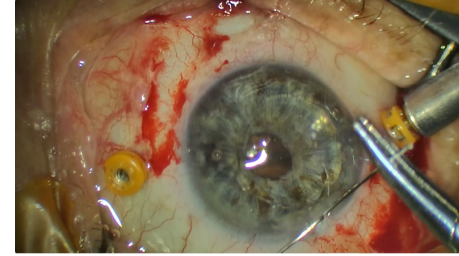
2. A 23G PPV (core vitrectomy) was performed.



3. Opening of the conjunctiva

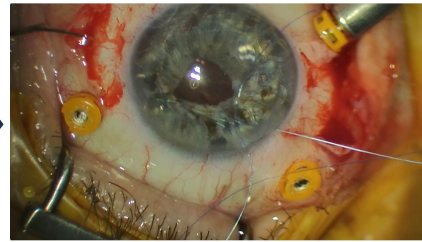
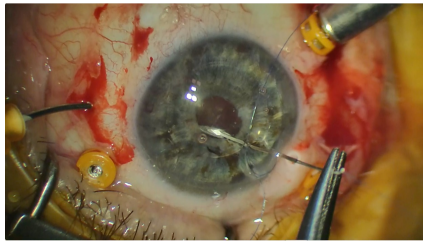
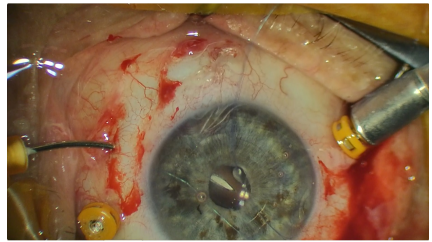
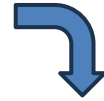


4, 5. The first haptic was temporarily externalized through the 2.75mm-main incision and a loop was created around the haptic using a 10-0 PC-9 polypropylene suture mounted on a curved needle.

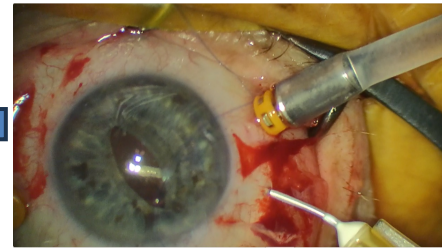
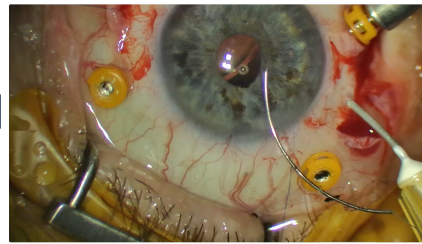
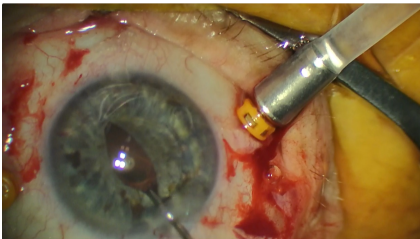
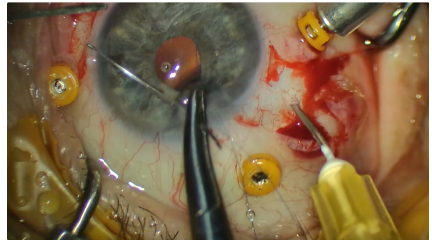


6, 7. The same procedure was followed for the antidiametric haptic.

Surgical steps



8, 9, 10. A 25G-curved hypodermic needle was introduced through the sclera being used to dock the curved needle and guide it out through this paracentesis. The haptic was tucked under the iris as the suture limbs were drawn through the sclera.

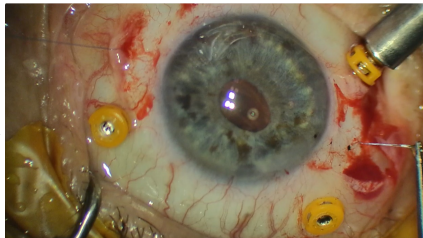
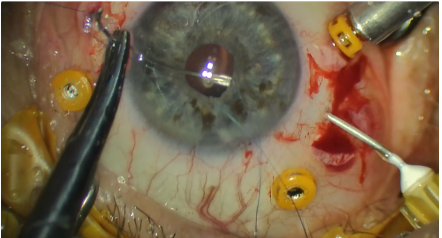


11. A 25G-curved hypodermic needle was introduced through the sclera antidiаметrically.

14. Making a backhand pass of the curved needle through the side port

13. OVD injection in front of and behind the IOL

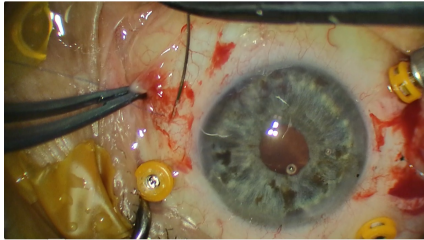
12. The IOL was brought into the posterior chamber.



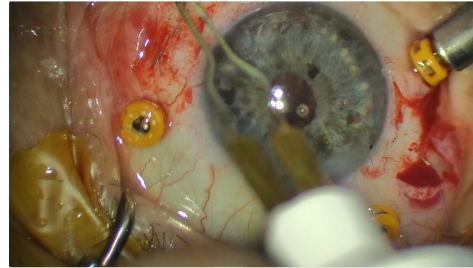
15, 16. Needle guidance out through this paracentesis

17. The tension on transcleral sutures was adjusted.

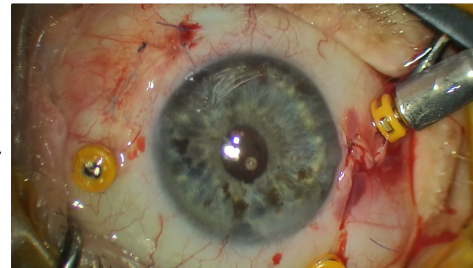
Surgical steps



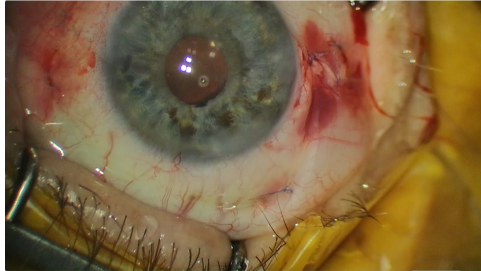
18. The sclerotomy was knotted with multiple zigzag-throws of a 10.0 nylon suture



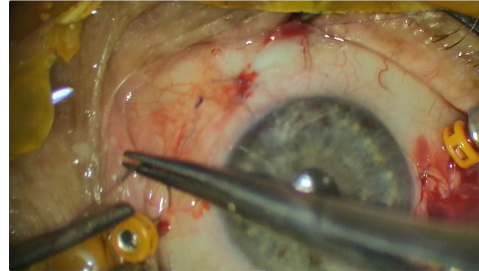
19. Haptic burning with an ophthalmic diathermy



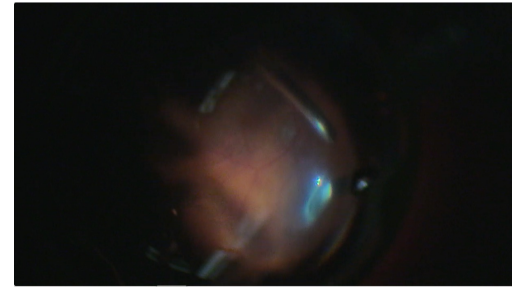
20. The same procedure was followed for the antidiametric haptic and the conjunctiva was closed with 8.0 vicryl sutures.



23. Final result



22. The sclerotomies were closed with 8.0 vicryl sutures.



21. Final checking of the vitreous cavity

Results



- Postoperative UDVA (two-month follow-up): 0.7 logMAR
- Postoperative BCDVA (two-month follow-up): 0.35 logMAR
- Postoperative endothelial cell density had no significant decrease.
- No hypotony, ocular hypertension, suture exposure, or any other complication was observed.
- Anterior segment OCT revealed no IOL tilt.

Conclusions



The advantage of this technique is that the same one-piece IOL is retained and secured, while the risks and manipulations associated with explantation and exchange are avoided.