

CLINICAL IMAGE

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Iridodialysis repair using double-armed McCannell suture

Munjal Pandya, Ankit Shah

CASE REPORT

This case reports a 24-year-old male who presented with severe iridodialysis right eye (OD), along with several other ocular injuries including orbital fracture, eyelid laceration, hyphema, traumatic cataract, and lens subluxation following facial trauma. Preoperatively, the patient's visual acuity OD was count fingers (CF) at 1'. (Figure 1A). The slit lamp exam OD showed iridodialysis temporally and superiorly with fibrotic iris tissue and membrane on the anterior lens capsule (Figure 1B). A McCannell suture iridodialysis repair was performed by using two double-armed sutures and fixating the peripheral iris to the scleral wall, approximately 1 mm posterior to the limbus. This McCannell repair requires less manipulation than other methods of iridodialysis repair. Complex cataract extraction and intraocular lens (IOL) implantation were completed concomitantly. Postoperatively, the patient's visual acuity remained stable at CF, limited by a macula-involving choroidal rupture. This was discovered with adequate visualization of the posterior pole following the cataract extraction.

DISCUSSION

Our patient had a successful repair of his iridodialysis, as displayed through the preoperative and postoperative images. Though the vision could not be restored in our patient, the cause is attributable to a choroidal rupture and other damages he suffered secondary to the traumatic event. The McCannell suture technique applied in this

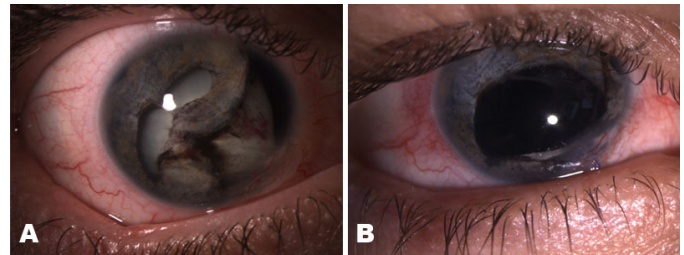


Figure 1: (A) Preoperative iridodialysis temporally and superiorly with fibrotic iris tissue and membrane on the anterior lens capsule. (B) Postoperative, iridodialysis repaired using a double-armed McCannell repair with two 10-0 Prolene sutures and concomitant complex cataract extraction with lens implantation.

case is an effective and minimally invasive option [1]. The double-armed McCannell suture method begins with one needle entering the anterior chamber through the corneoscleral limbus inferiorly [1]. It then pierces the iris base and exits the chamber angle and sclera [1]. A second needle is utilized in a similar fashion, entering from the same incision, but rather piercing the iris adjacent to the previous iris base site [1]. The suture is then tied over the sclera and buried [1]. Though it can be modified, typically a 10-0 polypropylene suture is used, which is consistent with our case [1–3]. The McCannell suture technique is not limited to iridodialysis repairs. For example, several cases have been reported showing its use for stabilizing previously subluxated posterior chamber intraocular lenses by attaching one or both haptics to the iris [2]. One potential complication of the double-armed McCannell suture technique is erosion of the suture through the superficial layers of the eye, though this is more likely to occur in children than in adults [3].

CONCLUSION

Our case reports the successful application of the double-armed McCannell suture technique for the repair of iridodialysis secondary to ocular trauma. This method does not require extensive manipulation of the eye, while yielding preferable results, with our case serving as a supporting example.

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Received: 21 July 2019

Accepted: 27 August 2019

Published: 19 September 2019

Keywords: Iridodialysis, Iris, McCannell

How to cite this article

Pandya M, Shah A. Iridodialysis repair using double-armed McCannell suture. J Case Rep Images Ophthalmol 2019;2:100013Z17MP2019.

Article ID: 100013Z17MP2019

doi: 10.5348/100013Z17MP2019CR

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Author Contributions

Munjal Pandya – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy

or integrity of any part of the work are appropriately investigated and resolved

Ankit Shah – Conception of the work, Design of the work, Acquisition of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

Our work was partially funded by a grant from Research to Prevent Blindness (RPB).

Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

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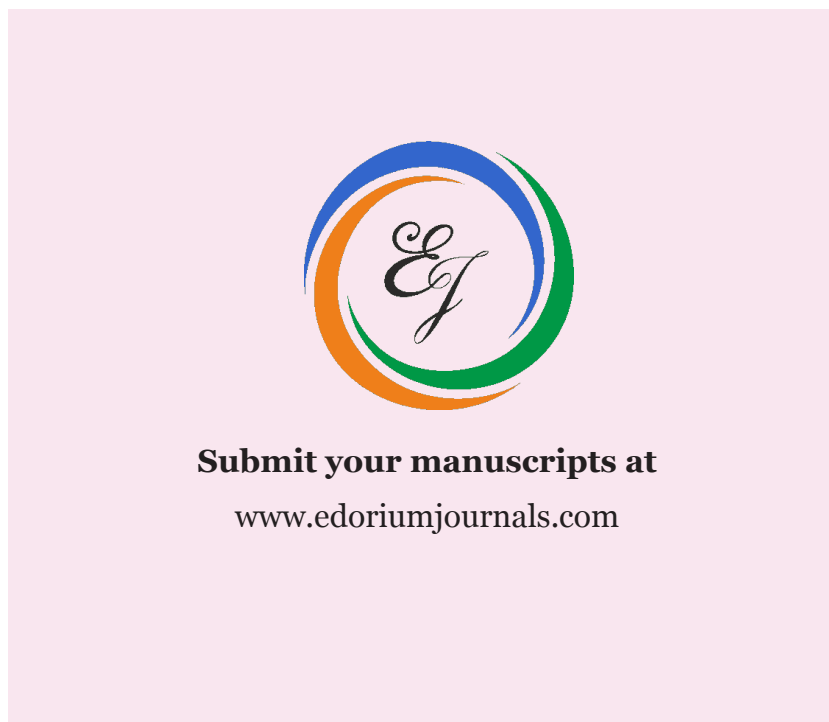
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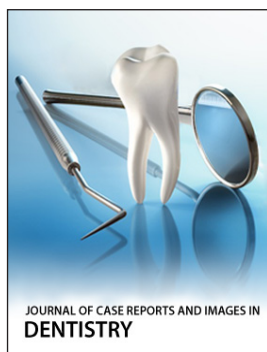
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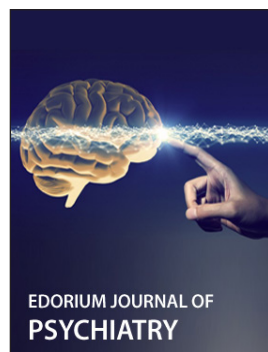
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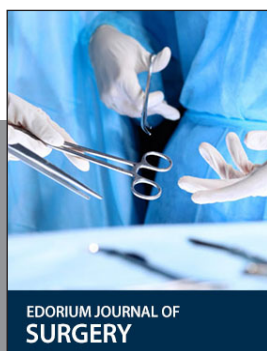
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