IOL Exchange for Malfunctioning and Malpositioned PCIOLs

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Introduction
- Malfunctioning IOLs
- Dysphotopsias
- IOL power error
- Malpositioned IOL
- Zonulopathy (PEX, PPV)
- Trauma (Blunt or surgical)
- PVR
- Dysphotopsias
- Corneal edema
- CME
Malfunctioning PCIOLs

Case #1: Wrong Aim
IOL exchange SPA

Case #2: Positive and Negative Dysphotosia
Treatment: Malfunctioning PCIOLs

- Multifocal PCIOLs
- Positive Dysphotopsia
- Negative Dysphotopsia

Removal and Replacement with monofocal
- Pharmacological treatment
- Removal and replacement for different IOL material
- Reverse (anterior) optic capture
- Sulcus placed IOL

Malpositioned PCIOLs

Case #3: Dislocated and Malpositioned 3-Piece IOL
Avoiding an Oval Pupil

Iris Suture Fixation Pearls

- Clear corneal incision 3.5-4mm
- Fold 3 piece IOL at 3 and 9 o'clock bucket handle delivery
- Intracameral pharmacological control of pupil size
- Start with McCannel Suture technique
- Suture retrieval: present suture to yourself with additional hook if there is peripheral corneal edema.
- Push down on the optic rather than rotating while placing optic behind the iris.

Iris Suture Fixation: Check list

- 10-0 polyester PCT needle (Alcon) or 10-0 prolene CIF-4 needle (Ethicon)
- Bonn microhooks (FST No:1003113) or sinskey hook
- Dispersive viscoelastic
- McCannel suture technique
- Sieper suture technique
Case #4: Malpositioned PCIOL in the AC

Large incision SSF: Checklist

- Gore-tex CV8 thread 9-0 needle (off-label use, W. L. Gore & Associates, Inc.)
- Anterior chamber maintainer 23 gauge or posterior infusion
- 23 gauge MVR blade equivalent
- 25 gauge graspablort max pars retina forceps (Alcon) or MST series
60 y/o diabetic male with recurrent vitreous hemorrhage

Diagnosis?
Small Incision SSF: Pearls

- Mark sclerotomies 180 degrees apart; avoid 3 and 9 o’clock if possible.
- Clear corneal incision 4mm (temporarily).
- Restrict oral intake (higher risk of leakage).
- Make sclerotomies in front, and 2-3mm posterior to the limbus, plan femtosecond blade, or 23 gauge MVR blade.
- Bury knots in sclerotomies.
- Watch for hypotony on day one; and high IOP day 5-7.

Small Incision Scleral Suture Fixation: Checklist

- GoreTex CV-8 thread TTc-9 needle (off-label use; W.L. Gore & Associates, Inc.)
- Anterior chamber maintainer 23 gauge 1mm sideport blade (23 gauge equivalent)
- 25 gauge grieshaber max grip forceps (Alcon)
- 23 gauge MST forceps
- Akreos AO60 (B&L) (**Off Label use)
- Caution: calcium hydroxyapatite deposits on PCIOLS documented after surgery in combined DSEK/DMEK with hydrophobic acrylic PCIOLS.

Ultrasound Biomicroscopy

Gortex suture
Respect the Soemmering’s Ring!

Plan for IOL bag-ring removal with larger scleral tunnel or consider IOL scaffold/sheets glide with smaller clear corneal incision

Have retina on standby in cases with significant Soemmering’s ring

Summary

Treatment: Malpositioned PCIOLs

<table>
<thead>
<tr>
<th>Single piece acrylic IOL</th>
<th>Three-piece IOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sutus</td>
<td>Sutus</td>
</tr>
<tr>
<td>Removal and Replacement</td>
<td>In the bag</td>
</tr>
<tr>
<td>ISF 3-piece IOL</td>
<td>Laser scleral</td>
</tr>
<tr>
<td>Glued IOL</td>
<td>Capsular support</td>
</tr>
<tr>
<td></td>
<td>Laser scleral</td>
</tr>
<tr>
<td></td>
<td>Capsular fixation (SSF)</td>
</tr>
</tbody>
</table>

Thank You!