

Where Did That Knife Come From?

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Abstract

- A four-year-old male presented to clinic for a contact lens fit status-post ruptured globe repair with pseudophakia, anisometropia, amblyopia and choroidal effusion during vitrectomy.

Background

- Two years prior, patient and sibling were jumping on two beds pushed together that somehow had a knife between them – after an epic belly-flop, the patient began screaming and ran downstairs holding his eye
- Patching the right eye six hours per day with full time glasses wear – no vision improvement
- Monitored every 3 months
- Ocular History:
 - April 2015 – penetrating globe injury OS, s/p globe repair with lensectomy and IOL insertion
 - May 2015 – vitrectomy and removal of retained lens fragment OS with resulted complication of choroidal effusion
 - Exam under anesthesia with Kenalog injection OS in June and July 2015

Pertinent Exam Findings

- Current glasses rx:
 - OD: +3.00 sph
 - OS: -6.25 -0.75 x 075 +2.50 ADD
- VA cc (spectacles)
 - OD: 20/25
 - OS: 20/150
- Alignment @ Dist: 25° Intermittent Left Exotropia
- Anterior Segment:
 - OD: unremarkable
 - OS: oblique corneal scar through visual axis from 1-7 o'clock, iris showed an irregular oblique pupil from 2-8 o'clock, PC IOL well centered and clear (the rest WNL)
- Posterior Pole:
 - OD: 0.1 C/D, unremarkable
 - OS: 0.1 C/D, macular pigmentary changes, superior nasal chorioretinal scar, retinal fold along superior arcade

Anterior Segment Photo OS



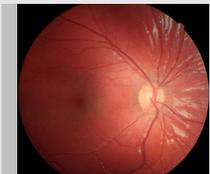
Difficult cooperation for all temp photos given age and photophobia

Anterior Segment Photo OS



Difficult cooperation for all temp photos given age and photophobia

Fundus Photo OD



Chorioretinal Scar OS



Initial Contact Lens OD



Initial Contact Lens Fit OS



Photos taken after fluorescein disappears

OD	Contact Lens Fitting	OS
+3.00 sphere	Cycloplegic Retinoscopy (Previous exam, not done during fit)	-6.25 -0.75 x 075
44.00/44.25@090 (Fit 0.50D flatter than flat K)	Keratometry Readings (manual)	42.75/46.00@090 (Irregular mires) >2.50D corneal cyl, fit >0.75D steeper than flat K, consultant recommended middle of steep/flatt K
7.8 mm	Base Curve	7.5 mm
9.6 mm	Diameter	9.6 mm
-3.00 sphere	Power	-3.00 sphere
0.5	Eccentricity	0.5
Optimal Fluorescein pattern, well-centered, lid attach fit	Assessment of CL Fit	Slightly superior nasal given irregular astigmatism, optimal fluorescein pattern, appropriate edge lift, lid attach fit
+3.50 sphere	Over-refraction	-3.00 sphere
20/25	Visual Acuity	20/100

Dispense Appointment

- OD: 7.75mm BC, 9.6mm diameter, +2.50 sphere, 0.5 eccentricity, gGreen in color, Optimum Extra (Dk = 100)
 - VA: 20/25 with -0.50 sphere spectacle over CL
- OS: 7.5mm BC, 9.6mm diameter, -6.00 sphere, 0.5 eccentricity, bLue in color, Optimum Extra
 - VA: 20/100 with -0.50 sphere with +3.00 add spectacle over CL
- Dispensed contact lenses with glasses over contacts for monocular precautions
- Successful insertion and removal of contact lenses with patient and mother

Treatment and Management

- GP CLs worn full time with glasses over
 - Bifocal in left lens due to pseudophakia
 - Two lines of improvement with contact lenses
 - Medically necessary letter written for CLs
- Recommend transition lenses for photophobia
 - Medically necessary letter written
- Continue patching the right eye 6 hours per day
 - BCVA: 20/80 OS
 - After plateau in vision, continued maintenance patching
- Glasses to be worn full time for monocular precautions

Clinical Pearls

- Medically necessary contact lenses are a great option for pediatric patients!
 - Things to keep in mind: modality, age, and cooperation
 - Continue to keep the parents involved
 - This may be their first-time experience with CLs as well
 - Print out of CL instructions for care to save you from some late-night calls
 - GP lenses are a great option for younger patients with corneal irregularity
 - As the patient gets older, we may change to a scleral for improved comfort
- Don't forget about monocular precautions!