Infantile aphakia and successful fitting of pediatric contact lenses; a case presentation
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An eleven month old male presents with bilateral aphakia secondary to congenital cataracts. The patient is currently successfully wearing B&L Silsoft Pediatric contact lenses, with good prognosis for vision in both eyes.

I. Case History
-Patient demographics: African American male, DOB 8/18/2009
-Chief complaint: patient presents with bilateral aphakia secondary to bilateral congenital cataract extraction
-Ocular, medical history:
S/P CE with anterior vitrectomy OD 09/22/2009, followed by OS 09/29/09.
(+ ) squinting, rubs eyes, light sensitivity
-Medications: none
-Other salient information: patient has been seen by SUNY Contact Lens clinic since 2 months old, 10/14/2009

II. Pertinent findings
-Clinical:
Keratometry readings 41.00/41.25 @ 005 OD, 38.50/41.00 @ 046
Axial length, immeasurable
Horizontal corneal diameter 8mm OD/OS
Fundus exam WNL OU

-Others: surgical dates: successful CE OU, September 2009

III. Differential diagnosis
-Primary/leading: Idiopathic

-Others: Posterior lenticous, persistent hyperplastic primary vitreous, anterior segment dysgenesis, and posterior pole tumors, trauma, intrauterine infection (rubella), maternal hypoglycemia, trisomy (eg, Down, Edward, and Patau syndromes), myotonic dystrophy, infectious diseases (eg, toxoplasmosis, rubella, cytomegalovirus, and herpes simplex [TORCH]), and prematurity. (5)

IV. Diagnosis and discussion
-Elaborate on the condition: Bilateral infantile cataracts are one of the major treatable causes of visual impairment in children. (2) Hubel and Weisel’s research on the critical period of visual development determined that if infantile cataracts are removed within the
critical period and appropriate correction is worn, vision is greatly improved. Failing to provide adequate treatment will result in deprivation amblyopia. (3)

-Expand on unique features: Less than 10% of congenital cataracts are idiopathic. (1) Failing to provide adequate treatment will result in deprivation amblyopia. (3)

V. Treatment, management
-Treatment and response to treatment: After successful removal of the cataracts, the patient was fit into Bausch and Lomb Silsoft BC: 7.9/ DIA: 11.3/Power: +32.00DS lenses OU and has sustained ~10 month of successful wear, with good compliance and no red eye events. The patient’s mother plays a tremendous role in the success of his contact lens wear.

VI. Conclusion
-Clinical pearls, take away points if indicated: Contact lenses have far surpassed intraocular lenses (IOL’s) in their popularity for use in the management, treatment, and continuous care of infantile aphakia. IOL’s while essentially providing the infant with optimal vision correction are associated with various short and long term risks, including intraocular lens subluxation, posterior capsular opacities, or uveitis (1)(4) Due to significant advances within the contact lens industry, we are seeing now more than ever, greater success rates with aphakic infants being managed with contact lenses. This review outlines the contact lens management of an infant with bilateral aphakia, including a detailed analysis of the various contact lens options available, the particular use of the Silsoft lens (Bausch & Lomb), a discussion regarding the important factors that can cause issues with contact lens wear, and lastly an introduction to Bausch & Lomb’s global Pediatric Cataract Initiative.

Research on contact lenses (especially Silsoft, B&L) have shown them to be a safe and effective treatment for the management of infantile aphakia.(1) Compliance with regular follow-ups to monitor for undesirable consequences of contact lens over wear or inappropriate wearing schedules are exceedingly important. This case highlights the need for a motivated, patient caregiver and optometrist alike. Fitting this unique population with contact lenses is time consuming and challenging, however, this ability to improve the visual prognosis is an exceptional service we are able to provide.
Bibliography


5. Mounir Bashour, MD, CM, FRCS(C), PhD, FACS, Assistant Professor of Ophthalmology, McGill University; Clinical Assistant Professor of Ophthalmology, Sherbrooke University; Medical Director, Cornea Laser and Lasik MD. Cataract, Congenital.


