




Congenital Cataracts in Children

Up to 2,000 children per year develop congenital cataract.

 **MANY OF US** will never see children with a visually significant congenital cataract. As an independent practice optometrist, I had not—even with nearly 40 years of practice—until it became personal.

At about nine weeks, my daughter asked about my grandson's eyes. Twenty diopter lens and a direct ophthalmoscope showed me funny "Y" sutures. I told her not to worry. The index of refraction around the "Y" sutures was different, making them very obvious. About one week later, I got a call asking if I would look again. My daughter, son-in-law and grandson came over to the office. Dense sclerosis. No response to visual stimuli. Cataract surgery was scheduled as soon as the pediatric eye surgeon was available.

I am sharing this story and information as a quick synopsis for the optometrist who sees kids from one month old.

Treatment options

It is estimated that there are up to 2,000 children per year who develop a congenital cataract, whether monocular or binocular. The literature in the past several years has defined a congenital cataract as occurring during the first year of life. Some infants are born with them, but over half develop during the first year. Although the statistics vary from study to study, it is estimated that 3.0-4.5 of each 10,000 live births will have or develop a visually significant congenital cataract.

The surgical treatment trend over the past

several years has moved away from early IOL implantation due to complications (i.e., glaucoma, retinal detachment and refractive error change). Most pediatric surgeons leave children less than two years old (sometimes even older) aphakic. Axial length changes overwhelm all other changes within the first two years of life resulting in large refractive error shifts. Because of this, approximately 90% of aphakic infants are fitted with contact lenses. Our experience with pediatric eye surgeons suggests a high level of appreciation for pediatric optometrists. Optometrists do the heavy lifting that supports the critical visual and neural network development for each child through the fitting of the very specialized high plus contact lenses.

Contact lens alternatives for infant and childhood aphakia are somewhat limited.

That is:

- Rigid gas permeable.
 - Corneal.
 - Scleral.
- Hydrogel multiuse lenses.
- Hybrid multiuse lenses.
- Silicon elastomer multiuse lenses.

As with many types of contact lenses, the fitting is a critical part of contact lens care. It is the troubleshooting of problems that occur in the daily use of the contacts that is most important. Just because contacts may be working at day one does not necessarily mean excellent fitting, function and vision at day 60 or day 180. Just as with people of all ages, periodic follow-up care is essential for good ocular health, vision and comfort. Little ones need to be seen more frequently com-



pared to older children and adults. We suggest monthly visits during the first six months of life, then three-month visits for the next year, then every six months thereafter.

What doctors should focus on

Parent communication. Parents often blame themselves for the development of cataract in their child. A cause will never be identified for about two-thirds of children who have a congenital cataract. Let parents





Wearing schedule. Extended wear is sometimes sold as being more convenient for parents and less traumatic for the infant or child. Don't kid yourself. Every parent of a child with cataract is scared their child will end up blind. They might not say it, but you know they feel it. It is safer to insert and remove baby's contact lenses every day. To a child, routine is everything and parents can do what they must do. You are not being mean. You are reducing infection risk. You are reducing amblyogenic risk. You are going to positively affect that child for the rest of their life.

Refractive error correction. Our job is to get contacts on the infant that give clear vision to develop their neural network at a good functional distance. Over-plus them by at least 3 diopters. They are not trying to catch a football coming from 10 yards away. They want to see Mommy's face, their fingers or their toes! Assuming no related systemic problems, about 80% children will have visual acuity of 20/40 or better.

Complications. Infants are not sterile! And their contact lenses are not either. Think corneal ulcer when they come in. Remember the clues for corneal ulcer:

- Red eye.
- Photophobia.
- Pain or discomfort.
- Epiphora.
- Blurry vision (often more difficult to evaluate).

And, these also are the signs of increased IOP, so check pressure as these children are at high risk for glaucoma.

If you are interested in becoming more involved in working with aphakic infants and children, help is available. Do not be intimidated by working with these kids. If they are at your office, they need your help. You will be problem solving for each child just as you would an adult. They may not be able to tell you what is wrong, but as a rule you can figure it out based on their signs and symptoms. The reward for fitting infants will last well beyond your years of practice.

—Written by Ronald Seger, O.D., member of the AOA Contact Lens & Cornea Section.

know they are not alone. There are help groups online, but they should check with you if they want to make changes to the care regimen and instructions that you give to them. We schedule my infants with aphakia together, so parents can meet one another and offer support. Seeing an older child doing well goes a long way in supporting other parents. Often the postpartum experience of infantile cataracts can feel overwhelming. Make sure your practice feels accessible for questions and concerns.



Interested in furthering your understanding in the field of contact lenses, cornea, diagnosis and treatment of anterior segment disease, refractive surgery and related technologies? Join the AOA's Contact Lens & Cornea Section by visiting aoa.org/clcs.