TheSwaddle

Babies & Kids – February 22nd, 2016

Look Out For Your Newborn Baby's Vision — You're The Only One Who Can

By Arundhati Nath

My parents were shocked 26 years ago, when a doctor told them their newborn baby had been born with a cataract. Most people think cataracts affect adults only, but when I was a month old I had the same kind of surgery as a 60-year-old. While it gave me some vision, I was left visually impaired because of the delay in diagnosis.

I'm hardly a unique case. India is home to 20% of the world's blind people and many more visually impaired people, whose vision can't be fully corrected by lenses. But according to the World Health Organization, it doesn't have to be this way: 80% percent of all visual impairments can be treated or prevented – they just have to be caught in time.

Causes of the conditions at birth that can lead to visual impairment aren't entirely understood. While premature birth is a contributing factor, maternal infection and genetic factors have also been linked. In many cases, the cause is unknown.

What is known is that the first 20 to 30 days of a child's life are critical in detecting and treating these conditions.

The human eye uses the same principle as a camera: Light enters the eye through the cornea, which is the transparent, convex front layer. The light is then focused by the eye's lens, and the image of what you look at falls on a light sensitive membrane called the retina. The optic nerve relays all of this to the brain, where we see and interpret the image.

Parents are the likeliest detectors of a newborn baby's vision problems.

During the first month of a newborn baby's life, these parts and process continue to develop. Right after birth, he will only be able to make out the contour of a face in black and white. Within a week, a baby will start to see some colour, and within a few weeks more, he will be able to focus on nearby objects, though he may remain sensitive to light.

The immaturity of a newborn baby's vision system is a double-edged sword – while it allows for correction of abnormalities, it also makes it difficult to distinguish natural vision development from vision problems. Every child born at a large hospital should be checked for abnormalities of the eye soon after birth, says Dr Parang Mehta, a pediatrician in Surat. But it seldom plays out this way. In the early '90s, there was no proper screening procedure in place, and my mother's doctor lacked the specialized knowledge to diagnose my cataract. This continues to be true. While some states, like Tamil Nadu, Andhra Pradesh and Telangana, have recently started programmes to combat certain newborn conditions that lead to visual impairment, standard screening is still lacking.

That leaves parents as the likeliest detectors of vision problems.

"The simplest indicator of a vision problem that a mother [or father] can get is when she feels the baby does not look at her," says Dr. Kaushik Murali, president of medical administration, quality and education at Sankara Eye Foundation India. Dr. Murali says parents should also consider these questions:

- Does the baby feel toys with his/her hand but not look at them?
- Does the baby respond to your voice but not to your smile?
- Is the baby extremely sensitive to light?
- Does the baby cover, close or frequently rub his/her eyes?
- Does he/she blinking too much?
- Do his/her eyes appear swollen or poorly aligned?
- Does the baby hold objects very close to his/her face when looking at them?

Dr. Murali advises parents who observe any of the above symptoms to contact an ophthalmologist immediately. The ophthalmologist will likely conduct any of three tests if the child is younger than 6 to 8 months. A chart with a pattern on one side and a plain surface on the other will test if the child prefers to look at the pattern, typically indicating he or she can see. The ophthalmologist may also dilate your child's eye with medicated eye drops in order to magnify and examine the retina inside, says Dr. Murali.

Finally, the ophthalmologist may also administer what is known as a Red Reflex Test in a darkened room, says Dr. K. Bhujang Shetty, chairman of Narayana Nethralaya Eye Hospital in Bangalore. This test evaluates the reflectivity of the retina when a bright light is shined into the eye.

These tests can reveal any of four major eye abnormalities in babies, says Dr. Kasu Prasad Reddy, chief surgeon and chairman of Maxivision Eye Hospitals in Hyderabad:

Refractive errors: When a baby's eyes are unable to focus light properly, his vision will blur. Refractive errors come in a variety of types: myopia (short-sightedness), hyperopia (far-sightedness), or astigmatism (wherein the eye focuses multiple, rather than one, points of light). These defects can usually be corrected by glasses.

Congenital cataracts: A buildup of protein clouds the lens in the eye, preventing light from passing through clearly. For babies, a surgery is usually done immediately, says Dr. Murali, to insert a new lens and prevent amblyopia (irreversible 'lazy eye').

Congenital glaucoma: A buildup of fluid in the eye puts pressure on the optic nerve and damages it, leading to myopia, amblyopia, or strabismus (that is, a crossing or wandering eye). Babies with glaucoma often appear to have enlarged irises and pupils as well as cloudy corneas. Excessive tearing is also a symptom. In most cases, a surgery is done to drain the excess fluid. Dr. Murali warns follow-up care is essential.

Retinopathy of Prematurity: Swollen or overgrown blood vessels (the result of too little or too much oxygen) in the eye can scar or detach the retina in premature babies. Most cases are mild and will resolve on their own, given proper management, though advanced cases may require laser surgery to prevent permanent impairment or blindness.

These conditions can affect anyone: rich, poor, children of young parents, children of older parents. So, until vision screening is a standard post-birth practice in every hospital, parents need to be vigilant. If your child's vision isn't tested at birth, request a screening from your pediatrician or ophthalmologist.



By Arundhati Nath

Arundhati Nath is a freelance writer and journalist currently based in Guwahati, India. She loves writing on parenting, health and fitness, travel and culture, children's and women's issues. She has written for The Guardian UK, National Geographic Traveller India, Outlook Traveller, JetWings, Mother & Baby, Parent and Child, India Currents, Child magazine, The Better India, and Pulse. You can read her work at arundhatinath.com (http://arundhatinath.com).

See all articles by Arundhati (http://theswaddle.com/author/arundhati/)

All contents copyright © Swaddle Projects Private Limited 2014 (http://theswaddle.com). All rights reserved.