

Hospital envisions normal life for preemie facing blindness

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There's been enough trauma already in the first few months of Alyssa Smith's life.

Born at 23 weeks' gestation and weighing just 1 pound, 2 ounces, Alyssa recently faced her fourth surgery in four months at Hope Children's Hospital in Oak Lawn.

She had problems with a heart valve, her bowels had to be removed, and now doctors planned to insert a feeding tube.

Yet another issue Alyssa had to confront: retinopathy of prematurity. According to the National Eye Institute, ROP is a potentially blinding eye disorder that primarily affects premature infants weighing about 2 pounds or less who are born before 31 weeks of gestation.

"These babies need less trauma," said Dr. Benjamin Ticho, a pediatric ophthalmologist.

So at least to treat the ROP, he was excited to offer a new kinder, gentler treatment option. Alyssa would get a drug called Avastin injected directly into her eye with a tiny needle, making her one of the first two patients at Hope to undergo the treatment.

"This is a wonderful option," said Ticho, who completed the procedures for the first time on both babies in January. "It takes only a few minutes, and the babies had no discomfort. Both are doing great."

"They are our pioneers," neonatal nurse Debra Skopec said. "Not many medical centers are willing to do this yet."

'Blessed'

Simply being born premature exposes a baby to ROP, Skopec said. Those who are extremely premature have a greater risk.

Hope screens all "preemies" 32 weeks or younger for the disorder, but only a small percentage need treatment, Ticho said.

ROP is a condition in which the still-growing blood vessels in the eye start curling inward instead of growing flat and straight from the back of the eye to the front. If they curl inward, they can pull on the retina and cause it to detach, Ticho said.

"Our goal is to prevent retinal detachment by getting the blood vessels to stop growing out of control," he said.

Avastin, a cancer drug, is a growth inhibitor, but to be effective against ROP, it must be delivered “right where we want it: to the blood vessels in the eye,” Ticho said.

Although Alyssa’s mother, April Smith, was a bit apprehensive about allowing a needle to be stuck into her tiny daughter’s eye, she said she felt “blessed” to have the treatment option available at Hope.

“Without this, her vision would have been more limited. Now she will be able to do the things normal kids can do, like drive a car,” Smith said.

Before Avastin, ROP was treated with cryotherapy, a “heavy-handed treatment” that involves using extremely cold temperatures; and laser therapy, which can result in less peripheral vision and the need for strong glasses later on.

Both procedures require general anesthesia and kill the growth of blood vessels for life.

With Avastin, a few drops of anesthetic first are placed on the infant’s eye before the tiny needle is inserted with a few drops of the drug.

“We saw great results right away. Within a couple of hours, she was looking around,” Smith said.

The only downside to the Avastin treatment, Ticho said, is that because the blood vessels start growing again, the eyes need to be monitored regularly to make sure they are growing properly. If they aren’t, the eyes can be treated again.

The long-term effects of the drug are not yet known, he said.

Alyssa’s outlook

Alyssa now is 5 1/2 months old and weighs 7 pounds, 6 ounces.

When Ticho checked her eyes on a retinal camera recently, her blood vessels “responded nicely,” he said as he pointed out their normal growth on a monitor.

But even after she is discharged — hopefully in a couple of weeks — her eyes will have to be checked monthly until the blood vessels’ growth is complete, Skopec said.

“It’s a huge commitment on the parents’ part,” she said.

But Smith already has made a huge commitment. She opted to continue Alyssa’s care at Hope even though she is five hours away from her Fort Wayne, Ind., home, her husband and five other children.

Alyssa was born in Gary and was transferred to Hope when she was 7 weeks old because she had patent ductus arteriosus — a heart valve that did not close.

“She had so many issues, another hospital would not have been able to handle it,” Skopec said. Hope also has nurses specially trained in ROP care, she said.

Smith could have transferred to a hospital closer to home. But the doctors and nurses are familiar with and attached to Alyssa, she said.

“Once I start something, I have to finish,” Smith said. “Our family is very committed to this. Alyssa responds well to them. She does her part, and I will do mine.”
