

Chinese stem cell procedure: Scam or savior?

[BRIAN NEWSOME](#)

October 5, 2008 - 3:01PM

The air stank. People slept on the steps and in elevators. The place was filthy.

Katrina Stewart wondered if she'd made the most expensive mistake of her life. She'd come to this inhospitable hospital in China with a hope that stem cell therapy would restore some sight for her nearly blind son. With some \$50,000 in donations, it was a hope shared by friends and strangers back home in El Paso County.

The trip didn't let them down: She says 8-year-old Brandon Stewart recognizes the alphabet for the first time. He is no longer afraid to go outside for fear of running into a tree branch.

But her story hasn't quelled a controversy surrounding the procedure, one of medicine's fastest-growing fields.

Anecdotes don't go far in science.

Western doctors accuse Chinese companies of selling untested science to desperate families. Some call it outright fraud and quackery. Without studies, they say, there's no way to know if improvements like Brandon's are real or imagined. The placebo effect is extremely powerful, studies have shown.

Companies such as Beike Biotech, where Brandon was treated, argue they're not only legit, but bringing breakthroughs to families while the rest of the world wades through the red tape of clinical trials and regulations.

Stewart is neither cheerleader nor cynic in the debate.

She's thrilled by her son's apparent milestones, yet disappointed that the people who helped him are showing little effort to legitimize their work with the scientific community.

"It's frustrating, because I see that it can help people, but I also see that if they spend a little more time documenting it, more people could be helped," Stewart said. "The doctors there just don't care about documentation."

Even basic information, such as blood-pressure readings, was jotted down and thrown away a short time later, she said.

OPTIC NERVE HYPOPLASIA

Brandon was 6 months old when he was diagnosed with a birth defect called optic nerve hypoplasia, in which the optic nerve never fully develops in utero. He could see a few colors and foggy objects, and recognize faces when they were inches from his face.

The Stewarts learned of Beike from a 2007 news report on a girl with the same condition who reportedly was able to see better after having the stem cell treatment in China.

These stem cells, placed in an intravenous cocktail, are intended to repair and replace damaged nerves, the company says. The company claims to treat an assortment of incurable diseases and injuries with the cells, but says the most success has come from treating optic nerve hypoplasia.

The Stewarts made a plea for donations to the community in February, and got about \$50,000 in six months, most of which went to Beike.

That's precisely why Jonathan D. Moreno, an ethics professor at the University of Pennsylvania and expert on medical ethics, calls Beike's work a "fraud." If a company is going to profit from experimenting on human patients, at the very least it should reveal its work for inspection, he says.

Several doctors say the science practiced by Beike - bathing the spinal column and brain in stem cells from umbilical-cord blood - is irrational.

Two pediatric eye surgeons at Washington University, in St. Louis, issued a press release calling it a "21st Century snake oil scam."

Dr. Robert Lanza is chief scientific officer at Advanced Cell Technology and one of the nation's leading authorities on stem cell research. He said stem cells have been shown to have healing effects even when they don't become the kind of cells they were intended to become. Still, without research, patients could just as well be thinking they're better. He referred to a study where Parkinson's patients treated with a placebo gave up their wheelchairs.

Lanza said he did not know the extent of any clinical trials in China, but treating humans without clinical trials is "reckless," he said, especially because so much is unknown about stem cells. In one of his experiments, stem cells injected into a sheep's heart inadvertently became silver-dollar-size bone fragments in the chest cavity.

CONFIDENCE SHAKEN

Stewart was aware of the controversy before she left, but it took on new relevance once she arrived. For a hospital professing to be on the cutting edge of stem cell science, the facilities painted a different picture on a first impression.

"The place looked clean on the surface, but it was filthy," she said.

Local residents would urinate in the stairwells and sleep in the hospital hallways, she said, and staff members would use rags from one patient's room to clean another patient's.

"At first I was ready to turn around and go home. But we came there for a purpose, and that purpose was for Brandon," she said.

The doctors there won her confidence, she said. One doctor became teary-eyed as he watched as Brandon identify flash cards after his treatment.

"The doctors - they care, they honestly care," she said. "But they just don't care about documenting it."

Stewart said she paid close attention to Brandon beforehand in anticipation of being influenced by a possible placebo effect, and she is convinced his improvement is not imagined.

While in China, after he'd received treatments, Stewart was working on the computer when Brandon noticed photos.

"Oh, who's that?" he said, to his mother's surprise. She stopped what she was doing and began showing him letters of the alphabet, known to him until this point only in Braille.

He has abandoned his cane and developed new confidence in venturing outside.

Brandon's Colorado Springs ophthalmologist, Dr. Dave Lee, who recently examined Brandon, said there's improvement in his left eye.

"It certainly gave me pause," Lee said.

Still, it was not enough improvement to convince him that stem cells are the reason.

In February, Lee gave a cautious go-ahead to the Stewarts' trip, calling Beike's work "an interesting idea" with low risks.

Now he feels differently. The information he's read since then has convinced him that, scientifically, the procedures don't make sense.

And the risks have been understated, Lee believes. At one point in China, Brandon suffered headaches, and it took 45 minutes for him to get an MRI, he said. Brandon was OK, but Lee said if the problem had been serious, the time lapse could have resulted in serious complications.

Despite Lee's opinion, Stewart is considering a return trip in hopes of further improvements. "We're just enjoying the fact that Brandon's not so afraid anymore," she said. "It's like watching a completely different kid in some aspects."