

Florida doctor gives stroke survivors new shot at mobility, independence

December 21 2012, by Nicole Brochu

A single injection, then a five-minute wait. That's all it took for hundreds of stroke and traumatic brain injury patients from South Florida and nationwide to reverse years of debilitation. Now they're walking more steadily, reading more easily, concentrating better, speaking more clearly and regaining use of once-rigid limbs - long after giving up hope that their bodies would ever respond.

The 25-milligram shot at renewed independence is the brainchild of Boca Raton, Fla., physician Dr. Edward Tobinick. His patented method for delivering the anti-inflammatory medicine, [etanercept](#), to the brain is getting praise around the world as a "radical breakthrough" in the treatment of chronic [neurological dysfunction](#).

"It's magic," said Dr. Rene Alfaro, an [ophthalmologist](#) from Mexico, of the single-dose injection that almost instantly restored much of his wife's movement and cognition more than a year after an aneurysm and subsequent stroke incapacitated her left side. "It's like a click."

Within minutes of receiving the injection on Monday, Anna Alfaro walked without a cane, got up from a chair more easily and regained sensation in her left arm. Hours later, with some of her left eye vision returned, she could see the phone clearly enough to dial a number for the first time since her illness.

Her response is not unique.

In a peer-reviewed study published Dec. 1 in the [Adis medical journal](#), "CNS Drugs," Tobinick's Institute of Neurological Recovery gave etanercept injections from November 2010 to July 2012 to 617 [stroke patients](#) and 12 [patients](#) who had suffered a traumatic brain injury, or TBI.

Of the total studied, more than 80 percent saw improvements in their ability to walk; more than 80 percent had less spasticity; and more than 85 percent exhibited improved motor function. Improvements also were recorded in many patients' range of motion, pain and cognition, as well as their ability to speak, see, swallow, concentrate and maintain [bowel control](#).

Hollywood, Fla., resident Jennifer Cody said the treatment gave her 59-year-old father, a former outdoor maintenance man, renewed independence 18 years after his stroke.

"Within five minutes, he was saying how clear his head was," Cody said. "It had always been so cloudy."

Now her father talks without slowed speech, he's confident enough to drive on the highway, he can roll down the window in his car, and he no longer drags his left leg behind him.

"He does one-legged squats now," Cody said, with a laugh. "For them to be able to do something like that for someone who had a stroke (so many) years ago, it's incredible. I'm telling everyone I know."

Though most people are satisfied after a single dose, Tobinick said he recommends a second shot after one month if patients saw some improvement but wanted more. About a quarter of his patients, including Cody's father, choose the second shot.

The benefits reportedly are long-lasting. Tobinick said the first patients treated in November 2010 continue to enjoy improved mobility and cognition.

"These results represent a sea change in the therapeutic possibilities for stroke and TBI patients," Steven Ralph, associate professor at Griffith University School of Medical Science in Australia, said in an article produced by Adis' parent company, Springer Science+Business Media. "Rarely do we see such a radical breakthrough in medical treatment as this for stroke."

Tobinick's research - published in numerous scientific and medical journals around the world - has found that this therapeutic technique is also beneficial for treating sciatica and Alzheimer's disease.

"It's for neurological inflammation," said Tobinick, a board-certified internal medicine physician who has used his treatment method on more than 4,000 patients for various conditions. "We're doing this every day of the week."

Etanercept - better known by its brand name Enbrel - has proven effective in neutralizing TNF, the chemical that causes inflammation in the body, and has Food and Drug Administration approval for treating rheumatoid arthritis and psoriasis.

What makes this therapy revolutionary is Tobinick's discovery of a way to deliver the medicine to the brain, counteracting for the first time diseases and injuries beset by neurological inflammation. Tobinick found that by injecting the medicine at the back of the neck, then dipping the patient backward at a 45-degree angle for as little as five minutes, the drug enters the brain and spinal area through the cerebrospinal venous system and instantly fights the inflammation.

Enbrel's makers warn of side effects from continued use, including headaches, upper respiratory infection and, in severe cases, immune system impairment, risk of cancer, heart failure and blood and nervous system problems. But stroke and TBI patients undergoing Tobinick's therapy are receiving only one, maybe two, doses of etanercept, the doctor said, so it is rare for his patients to see side effects.

Because the therapy's "off-label" use of etanercept is not FDA-approved, this treatment is not covered by Medicare or most insurance plans. Monday's visit cost the Alfaros \$4,800, including the injection and follow-up visits.

Tobinick thinks Enbrel's makers should use his research to seek expanded FDA approval, so the treatment can be more affordable and accessible.

"Without an operating room, without anesthesia, (we're) delivering medicine to the brain," said Tobinick, who has been training doctors from around the world in his technique. "This changes somebody's life. They can do things they couldn't do before."

For Lantana, Fla., resident Martha Levine, 88, it meant being able to feed herself again. More than three years after a stroke left the retired clinical social worker with a severely weakened left side, she went to the Institute of Neurological Recovery in January for an etanercept injection.

Her gait immediately grew steadier and quicker, and she was able to think more quickly and clearly, said her husband, Irvin Levine.

Still dependent on a walker and, sometimes, a wheelchair, her improvements were important but not dramatic, her husband said.

"When you stop to think she had nothing before and she's a little better now, to us, it was a big difference," he said. "Even though it's slight, we're thankful for it."

At the Institute of Neurological Recovery's Boca Raton offices on a recent Monday, Anna Alfaro's quick, dramatic improvements had her husband in tears. The couple, with their 13-year-old son in tow, flew in seeking a glimmer of hope after doctors in Mexico City had assured them nothing more could be done for her.

"The real important thing is the daily things, the simple things," said Anna Alfaro, who had been dependent on a cane and no longer able to manage her husband's glaucoma diagnostic center. "For me, this is the difference in my life. I'm going back to work."

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WHO'S A CANDIDATE?

The vast majority of stroke and [traumatic brain injury](#) survivors living at home or in a rehab center are candidates for the etanercept therapy, Boca Raton's Dr. Edward Tobinick said. The best patients are those with some residual function in their mobility and cognition, though he has successfully treated quadriplegics.

Patients who would not qualify for treatments are:

- Diagnosed with multiple sclerosis, tuberculosis, severe immune suppression or an active infection
- Hospitalized and have not yet been discharged
- Comatose

For more information, contact the Institute of Neurological Recovery at 561-353-9707 or go to strokebreakthrough.com.

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