Surgical breakthrough

A DOCTOR EXPLAINS HOW A PIONEERING NERVE OPERATION MAY HELP A STROKE SURVIVOR

Monmouth Medical Center surgeon Andrew Elkwood, M.D., (back to camera) and his team perform a nerve transplant procedure.

JERRY CASCINO

Last December, Andrew Elkwood, M.D., chairman of the Division of Plastic Surgery at Monmouth Medical Center, led a team that removed a nerve from the leg of patient Vinnie Filippini, 44, and implanted it across his chest to connect the fully functional side of his brain with his stroke-paralyzed right arm. It was a novel approach to treatment for a stroke survivor.

Dr. Elkwood has been featured on network TV news for nerve transplant operations that have brought back to life limbs paralyzed in accidents. But as this magazine went to press, it wasn't yet clear if this breakthrough operation would succeed in restoring Filippini's arm. Dr. Elkwood explained the complex procedure to *Monmouth Health & Life:*

MH&L: When and how will you know if you've been successful?

Dr. Elkwood: It will take six months to a year from the procedure. We're looking for motion in Mr. Filippini's right arm. We know the nerve is starting to grow, but whether it grows as far as we want it to, we'll have to see.

MH&L: Is this nerve being placed where a nerve doesn't usually go?

Dr. E: Correct. We've previously done nerve transplants to reactivate limbs that had been paralyzed in accidents. This time, because the stroke left Mr. Filippini's whole right side not working, we did the same thing in a much more aggressive way, connecting the implanted nerve to several sites.

MH&L: We think of a nerve as part of the body's communication system. How can such a thing be transplanted from one body part to another—or from one person to another?

Dr. E: It's as if you have no electricity coming into

Being a medical pioneer is fine, but what Vinnie Filippini is really looking forward to is getting back the use of his right arm. With him are wife Kathy and daughters Jamie and Kara.

your house, so you take an extension cord and plug it into the neighbor's house. In this instance, the neighbor's house is the other side of Mr. Filippini. It's a Rube Goldberg rerouting of the wiring in the body.

MH&L: What did the procedure do to Mr. Filippini's leg?

Dr. E: We removed the sural nerve, whose only function is to register feeling on the ankle's exterior. A little numbness in the ankle is a small price to pay to regain function in an arm.

MH&L: So an ankle nerve knows how to tell an arm what to do?

Dr. E: The nerve is just a wire. The wire that rings your doorbell could probably launch a nuclear missile. It's what's hooked up on either side that makes the difference.

MH&L: Why did this breakthrough occur at Monmouth Medical Center rather than a larger facility in a big city?

Dr. E: I came from New York University Medical Center, one of the world's epicenters for reconstructive surgery, but I chose to live in the suburbs. Today, with mass media and the Internet, you no longer need to be in one of the 10 top centers. I hear from patients all over the world who've seen me on CNN. And Monmouth gives my team—and it's a team effort—very fertile ground to do this kind of work.

MH&L: What will it be like when Mr. Filippini's arm begins to move?

Dr. E: It could be gradual. He could start out with a twitch, which may become two twitches, which may become one intentional twitch. We'll see.

MH&L: It'll be a dramatic moment, I guess.

Dr. E: From your lips to God's ears! ■

Waiting for an arm's comeback

Today Bergenfield resident Vinnie Filippini, 44, can't use his right arm, but that may soon change. Thanks to a groundbreaking nerve transplant operation at Monmouth Medical Center last December, his arm has a good chance of returning to limited function as a "helper" limb that can hold things. But it will take time to see if the operation has succeeded. For now, Filippini is waiting.

He was an underground line technician for the utility Public Service Electric and Gas, whom his wife, Kathy, describes as "a vibrant, healthy man, very involved with his work." But he hasn't been on the job since March 2005, when he suffered a stroke caused by a blood clot that formed during surgery to remove a benign tumor at a Manhattan hospital.

"He has weakness on his whole right side," notes Kathy. She says her husband has recovered some function by working hard at speech therapy and physical therapy. But after two years, these methods have pretty much reached their limit.

"This is our hope," she says of the Monmouth surgical procedure. "It's our chance."

The couple learned that an operation might be possible when a friend called them after seeing a TV news report on another dramatic, limb-restoring operation by Dr. Elkwood, that one involving a limb paralyzed in an accident. When the surgeon mentioned that the procedure might help stroke survivors as well, the friend thought of the Filippinis.

"We went right to his website, and when my husband saw it he said, 'I want to give him a try,'" recalls Kathy.

While they're waiting, the Filippinis are living as normally as they can—with a big assist from their three children, ages 26, 24 and 21. "You find strengths you didn't know you had," says Kathy.

"I just feel thankful for Dr. Elkwood, no matter how it turns out," she adds. "He put his heart and soul into this."

To find out more about nerve transplant surgery at Monmouth Medical Center, please call 1-888-724-7123.