When Technology, Hope and Support Save a Life

A rendering of patient Joe Place’s brain during surgery, with the lesion, stimulation and recording sites, and points of speech interruption indicated.

Joe Place of Saratoga, NY, suddenly became ill while on a business trip this past February. Forced to spend much of the time in a hotel room, he recalled, “It was like I had a very bad migraine.” He called his wife and that is when he noticed that his speech was not making any sense.

Place went to a hospital in Bronx, NY, where it was determined he had experienced a grand mal seizure. “They said it was caused by blood vessels hemorrhaging in my brain,” he said. “I was in the hospital for two days and they ran a number of tests. Finally, I met with a neurosurgeon who told me that I had a cavernous (brain) malformation.”

Shock led to panic, as Place and his wife decided their next step, but a chance meeting with a neighbor changed everything. “One of my neighbors lost her son to a brain tumor and told me to contact Brigham and Women’s Neurosurgery Department,” he said. Place soon had an appointment with Neuro-surgeon Alexandra Golby, MD, associate surgeon and instructor at Harvard Medical School. At their first meeting, Golby reconfirmed that Place did have a cavernous malformation and recommended surgery. “She told me that if I had a hemorrhage again that it could affect my speech permanently because the tumor was so close to that part of the brain,” he added.

Golby talked with Place and his wife about functional brain mapping, which enables a neurosurgeon to locate critical motor, language and other key functional areas in an individual’s brain, thereby guiding the removal of a lesion in the safest and most precise way possible. “My wife and I drove back home stunned, but we both decided it was the best thing to do,” he said. BWH, thanks to Golby’s combined research and clinical expertise, is one of the only centers in the country to perform such a delicate procedure.

Place had a pre-operative functional MRI a week before his surgical procedure. During the scan, members of Golby’s team guided him through a series of different language tasks. They acquired brain images in this way to assist in creating a “map” of Place’s brain.