

VARIAN SURGICAL SCIENCES: NONINVASIVE NEUROSURGERY SPARKS WIDESPREAD HOPE

Innovative radiosurgery techniques treat tumors and lesions with pinpoint precision.

Certain that her stuffy nose and impaired sense of smell were due to a sinus infection, Diana Mitchell was stunned when her doctor told her she was suffering from a meningioma—a benign, slow-growing brain tumor that can wreak havoc on vital regions inside the head. This was back in 1996, and at that time Mitchell was 31 years old, married with two young children, and had to endure the only available treatment: major brain surgery that involved several days in intensive care and 12 weeks off work. Furthermore, doctors warned her that there was an 80 percent chance that the meningioma would recur.

Since then, Mitchell and her family have lived with that haunting fear—and a recent magnetic resonance imaging (MRI) scan revealed the meningioma was indeed slowly growing again. But this time, Mitchell was relieved to discover a new and dramatically different treatment option—stereotactic radiosurgery, which delivers highly concentrated doses of radiation to small tumors and early metastases using very narrow beams from many different angles.

Mitchell chose Frank Holladay, MD, a neurosurgeon at the Providence Medical Center in Kansas City, Kansas, and one of a growing number embracing Varian's stereotactic radiosurgery technology as a major step forward in imaging and treating difficult-to-reach tumors. "Varian radiosurgery has applications beyond

treating cancer," Dr. Holladay explains. "It is enabling us to visualize and treat inside the central nervous system with unprecedented accuracy, and this includes recurring and nonmalignant tumors that can be just as incapacitating or life-threatening as cancer."

At the Department of Neurosurgery in the University of Florida, Frank Bova, PhD, says that 60 percent of the patients treated with radiosurgery by his team have benign brain malformations or tumors similar to Mitchell's. Professor Bova and William Friedman, MD, chairman of the neurosurgery department, have been pioneering radiosurgery techniques for more than 20 years and recently purchased a Varian Trilogy™ accelerator. "The Trilogy allows us to highly automate the way we treat radiosurgery patients and save time by delivering these treatments quickly," Dr. Friedman explains. "Also, the advanced imaging technology enables us to accurately position patients, so we can treat areas such as the spine."

Subsequent scans show that Diana Mitchell's meningioma is shrinking and, now 40, she hasn't missed a beat in her active life, studying for an advanced degree, working, and raising her two children. "I had virtually no side effects and was able to walk out of the hospital the same day," Mitchell explains. "I hope that I don't have to use it again, but if I do, I know this option is available and that takes the fear out of treatment." **V**

No Fear. Dr. Frank Holladay (left) recommended just one session of a tightly focused beam of radiation to treat Diana Mitchell. Scans show Mitchell's brain tumor is shrinking and she is side-effect free. Stereotactic radiosurgery treatments typically can be conducted in one to five sessions on an outpatient basis.

