

July 20, 2007

CyberKnife a cut above for some patients

A Palm Beach Gardens facility is bringing tumor-killing technology to the Treasure Coast. Unlike hospital-based centers that restrict access, CyberKnife Center is an open center, meaning any physician or radiation oncologist can bring patients to it.

The open CyberKnife Center represents the vision of Dr. James G. Schwade, who opened the northern Palm Beach County facility in October 2005 following the success of his first center in southern Miami-Dade County. Schwade wanted to start a center to give more access to patients, making the technology available to as many patients as possible.

"This is a more efficient way to bring the technology to the most patients, to utilize the technology, rather than have competition among hospitals and doctors," Schwade said.

The CyberKnife is not a knife at all but an advanced radiosurgery tool that uses a robotic arm and a laser beam to deliver an extremely high dose of radiation to a very precise tumor target. The ray can attack and eradicate a tumor of just 0.095 millimeters.

Because of the targeting, surrounding good tissue is not harmed. The arm can provide 1,200 different angles from which to target the tumor.

The CyberKnife uses no incision, so there is no blood, no anesthesia, no pain, and no recovery or rehabilitation time.

For most patients, three-to-five treatments of just one hour are needed, Schwade said, though he warns it's not a miracle cure.

"CyberKnife is niche technology, only applicable to a certain number of maladies," Schwade said. "It's not a panacea for everything."

A physicist plans the treatment and, using a sophisticated software program, enters it into the computer. An experienced radiation technician then uses the computer to control the cyber-knife.

Board-certified surgeons and radiation oncologists can be trained on the CyberKnife in a one-day orientation so that they can participate in the evaluation of patients as potential users and help plan and supervise the appropriate treatment.

Schwade points out that physicians using CyberKnife for the first time benefit from the large body of institutional knowledge accumulated through the experience of the doctors who have used the tool.

Schwade said CyberKnife is used for tumors of less than 6 centimeters. It works well for lung and prostate cancer patients who have exhausted other treatments like chemotherapy and conventional surgery.

CYBERKNIFE 27

CyberKnife has also been used to treat brain tumors, as well as liver and pancreatic cancer.

Treasure Coast resident Joan Schwed is a big backer of CyberKnife after having the treatment for lung cancer more than a year ago. The 82-year-old also has emphysema and had previously had surgery for breast cancer and a different type of lung cancer. Her doctors recommended CyberKnife because she could not be operated on this time.

"It was absolutely incredible," Schwed said. "I went three days in a row, went home at night to dinner with my children in Palm Beach Gardens, and after the third treatment drove home to Fort Pierce. I can't say enough good things about the people at CyberKnife and you can actually get a cure."

Because of its specificity of use and high cost, the Palm Beach and Miami CyberKnife centers combined treat just 400 patients each year.

Schwade runs the operations. He said he picked up his business skills along the way and found that business was not as hard as doctoring. To prove it, he was awarded the Golden Stethoscope Award by Florida Medical Business as the Physician Entrepreneur of the Year in 2005.

The center's services are based on the number of radiation beams used for each case, so the center does not quote prices.

"The cost of treatment varies depending on the complexity of an individual's situation," Schwade said.

Potential patients should work through his Miami center, he said, adding that, generally, Medicare and private insurance cover treatments.

Schwade has worked in radiation oncology for 30 years and radiosurgery for 20 years. Among other positions, he served as professor and chairman of the Department Of Radiation Oncology at the University of Miami School of Medicine, where he was also Associate Director for Clinical Research in the Sylvester Comprehensive Cancer Center from 1987 to 1994.

Schwade worked extensively with Gamma Knife facilities in Miami, participating in more than 1,700 such procedures. The Gamma Knife is used primarily on brain tumors and requires the use of a frame screwed into the head. The CyberKnife has no such requirement.

"The Gamma knife is now obsolete in my opinion," he said.

In 1994, Schwade entered private practice, but spinal surgery forced him to stop seeing patients in 2000. It did open the door, however, for his entrepreneurial plunge into the business of CyberKnife centers.

"CyberKnife was now ready for prime time," he said.

The CyberKnife equipment alone costs \$4 million and a total center runs in the \$5 million to \$6 million. Schwade talked to hospitals and other doctors, but could find none who would join him, so he and his wife opened the Miami Center in 2003. The Miami center was the 12th in the United States. There are now 65, most hospital-based.

Attorney Stephen Pinkert partnered with Schwade to open the Palm Beach Center in 2005.

"We're serving 130 different physicians in three counties," he said. "This is the most efficient way to use the technology, which has limited application and is very expensive. It's best to be unaffiliated."

The open center has worked just as Schwade envisioned, but it is facing competition from centers opening in Stuart, Port St. Lucie and Melbourne.

To stay at the forefront of technology, a new Xsight Lung Tracking System, now in use by CyberKnife Center of Miami, will soon be available at the Palm Beach Gardens center. The new system eliminates the need for the markers which previously were inserted into the tumor for tracking during the CyberKnife procedure.

"Our treatment is now completely non-invasive," said Dr. Schwade. "We are the second medical facility in the United States to utilize the tracking system."

Schwade is also developing a proton therapy center which will be located somewhere in South Florida. The therapy is sophisticated radiosurgery option for cancer patients, including those who are not candidates for CyberKnife.

Copyright, 2008, Scripps Treasure Coast Newspapers, Used here with permission. No additional reproduction or distribution of this article in any form is permitted without the written approval of Scripps Treasure Coast Newspapers (<http://www.tcpalm.com>).