The Medical Center Expands Brain and Spine Tumor Treatment with Stereotactic Radiosurgery

The Medical Center has acquired new technology unique in Southern Kentucky to treat brain and spine tumors with pinpoint accuracy. The Brainlab Stereotactic Radiosurgery device is an advanced form of image-guided radiation therapy used to treat benign and malignant brain and spine conditions. The device has the ability to also treat selected tumors in the lung, liver and prostate (whole body radiosurgery). Outside of Louisville and Lexington, The Medical Center is the only facility in Kentucky to offer this advanced technology.

Stereotactic radiosurgery, a form of “bloodless surgery,” uses multiple, precisely focused radiation beams delivered to the target in a highly accurate manner with little or no damage to the surrounding normal structures. The treatment can be administered either with a high dose in a single session or a low dose over multiple sessions.

“This new technology is an integral component of the newly formed Brain and Spine Tumor Program at The Medical Center,” said Narendra Nathoo, M.D., a fellowship trained brain and spine oncologic surgeon. “Stereotactic radiosurgery enhances our ability to treat tumors in difficult to reach locations and complements surgical treatment where needed.”

“The pinpoint accuracy of our stereotactic radiosurgery system allows us to deliver doses of radiation that destroy tumor cells without adversely affecting surrounding sensitive structures,” said Richard McGahan, M.D., Medical Director of Radiation Oncology.

The Medical Center Neuroscience Services has established a Brain and Spine Tumor Program which offers surgical and medical treatment of brain and spine tumors, has regular neuro-oncology conferences, a monthly tumor support group and a program coordinator, Shellie Hardcastle, APRN.

Multidisciplinary Neuro-oncology Team
• Fellowship trained neuro-oncologic neurosurgeon
• Radiation oncologists
• Medical oncologists
• Neuroradiologists
• Pathologists
• Psychiatrist
• Nurse Practitioner
• Dietitian
• Physical and occupational therapists
• Social worker

Neuro-oncology Services and Treatments
• Advanced image guidance navigation technology
• Intraoperative ultrasound
• Advanced neurophysiologic monitoring
• Brain surgery for all types of brain tumors, including: Complex brain surgery with sleep awake sleep craniotomy, speech and cortical mapping/stimulation, intra-operative EEG, cranial nerve monitoring
• Pituitary tumors
• Brachytherapy - Gliadel wafers
• Endoscopic surgery
• Spine surgery for metastatic and primary spine tumors (benign and malignant) including intramedullary tumors
• Stereotactic Radiosurgery (SRS)
• Stereotactic Radiotherapy (SRT)
• Intensity modulated radiation therapy (IMRT)
• Genotype for glioblastoma multiforme (GBM)

To refer a patient for consultation, call 270-780-2660.