

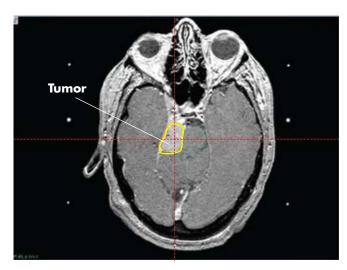
Your connection to community cancer care in the Atlanta area

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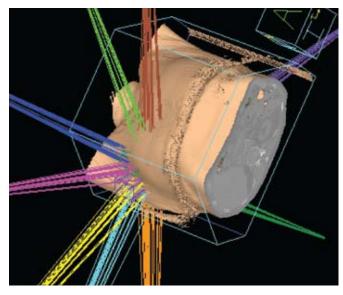
ROS Now Offers Stereotactic Radiosurgery, a New Cutting Edge Technology to Fight Cancer

Stereotactic Radiosurgery is Exciting Technology

combining the clinical expertise of the radiation oncologist with several technological advancements available in radiation oncology today. Physicians and patients are most familiar with radiation therapy delivered as external beam therapy in which relatively small amounts of radiation are precisely delivered to a cancer each day for several weeks. In contrast, stereotactic radiosurgery (SRS) is a radiation therapy technique that delivers a single high dose of radiation to a cancer, as well as some benign diseases, with extreme precision. "Stereotactic" refers to the computerized 3-dimensional coordinate system used to locate a cancer within the brain or body. Contrary to the use of the term surgery in its name, radiosurgery is not an operation. Instead, SRS kills cancer through a non-invasive procedure performed in an outpatient setting without anesthesia.



SRS combines clinical expertise and advanced technology to effectively treat small brain tumors.



Multiple radiation beams stereotactically converge on a lung cancer delivering a large cancer killing dose of radiation.

Benign and Malignant Diseases Treated with Radiosurgery

- Gliomas
- Metastatic Brain Tumors
- Pituitary Tumors
- Meningiomas
- Craniopharyngiomas
- Acoustic neuromas
- Lung Cancer
- Liver Cancer
- Arteriovenous Abnormalities
- Hemangiomas
- Trigeminal Neuralgia
- Metastases from various cancers
- Spinal Cord Tumors

Stereotactic Radiosurgery: Two Methods of Treatment Delivery

LINEAR ACCELERATOR BASED SRS

A linear accelerator is typically used to deliver conventional external beam radiation therapy. However, with the appropriate technical modifications and enhanced treatment planning capabilities, a state-of-the-art linear accelerator can also be used for SRS. Linear accelerator based SRS is widely used for malignant and benign diseases in both the brain and in the body. With careful patient immobilization and accurate tumor localization utilizing image guided radiation therapy (IGRT), precise radiation can be delivered with a stereotactic technique. SRS allows treatment of small tumors in areas of the body most sensitive to radiation.

GAMMA KNIFE®

A Gamma Knife® is a specialized stereotactic radiation treatment device designed to treat small brain tumors, benign and malignant, with pinpoint accuracy. Although a knife is not involved, the Gamma Knife® directs over 200 beams of radiation to converge on the tumor with knife-like precision. The overall effect is to deliver a very high radiation dose to the tumor in a single treatment while sparing the healthy parts of the brain from radiation.

Advantages of SRS

The primary advantage of SRS is that it gives the physician the ability to locate and treat small tumors with great precision. As a result of sophisticated tumor localization technology, a single large dose of radiation can be safely delivered, eliminating the need for weeks of radiation therapy. In addition, patients may also experience fewer treatment-related side effects with SRS because normal healthy tissue is largely spared the effects of radiation. It is important to note that not all cancer patients are candidates for SRS. Tumor size is an important criterion for patient selection. With the current SRS technology, only tumors less than 4 cm in size can be successfully treated.

"The science of SRS has validated its use in patients with certain brain tumors as well as in some patients with early non-brain cancers who cannot have surgery or withstand a six to eight week course of radiation therapy."



John Giesler, M.D.
Chief Radiation Oncologist
ROS-Riverdale

ROS' Stereotactic Radiosurgery Program

Patients in need of SRS are now being treated at ROS-Riverdale. "The science of SRS has validated its use in patients with early lung cancer who cannot have surgery and who cannot withstand a six to eight week course of radiation therapy," says Dr. John Giesler, Chief Radiation Oncologist at ROS-Riverdale. "Our linear accelerator based SRS technology allows us to safely deliver high doses of radiation in just a few treatments."

ROS physicians Nancy Wiggers and Peter Possert use Gamma Knife® technology to treat patients with various cancers and benign conditions involving the brain at Saint Joseph's Hospital of Atlanta. In 2010, enhanced Gamma Knife® technology known as Perfexion™ will be available to patients in need of brain SRS. The marvels of Perfexion™ technology enhance Drs. Wiggers' and Possert's ability to treat previously inaccessible brain tumors with greater efficiency and precision.

If you would like to learn more about Radiation Oncology Services as well as our physicians, staff, locations and our treatment programs, please visit www.radonc.com.

 Administration
 275 Professional Court, Suite A, Riverdale, GA 30274
 770. 994. 1650

 Cobb
 1800 Hospital South Drive, Austell, GA 30106
 770. 948. 6000

 Griffin
 725 South Eighth Street, Griffin, GA 30224
 770. 228. 3737

 Newnan
 211 Millard C. Farmer Ind. Blvd., Newnan, GA 30263
 770. 254. 9600

 Riverdale
 255 Professional Court, Riverdale, GA 30274
 770. 997. 8424

