

## **Advances in Stereotactic Radiosurgery are Enabling Effective, Non-Invasive Treatment for Spinal Tumors**

The Associated Press

Leading experts in radiosurgery of the spine will present information about how to treat spinal tumors effectively using stereotactic radiosurgery rather than invasive surgical procedures during the annual meeting of the American Association of Neurological Surgeons (AANS) here later this week. New techniques in image-guided radiosurgical treatment of benign and malignant spinal lesions will be the focus of a special workshop for neurosurgeons.

"The ability to treat a vertebral body tumor using stereotactic radiosurgery has drastically changed the field of spinal oncology," says Jason Andrew Weaver, M.D., neurosurgeon with the Semmes Murphey Neurologic and Spine Institute in Memphis, Tennessee, who will be demonstrating the use of EclipseT treatment planning software from Varian Medical Systems (NYSE: VAR) during the workshop.

"We can use stereotactic radiosurgery to treat many spinal tumors that would otherwise have required an invasive operation. Studies have now shown that these patients may be able to expect good long-term disease control as well as excellent levels of neurological functioning after treatment," Dr. Weaver said, referencing papers by Mark H. Bilsky, M.D.

and Peter C. Gerszten, M.D., who are co-directing the AANS workshop on spinal radiosurgery. (1),(2) Although they have worked with cobalt-based and robotic systems for stereotactic radiosurgery in the past, Dr. Weaver and his colleagues are now performing most of their radiosurgery procedures using Varian technology. "Varian's Trilogy@ machine, plus Eclipse for treatment planning, have become our mainstays for treating both brain and spine tumors with stereotactic radiosurgery," he said. "It's a very user friendly and intuitive system." Stereotactic radiosurgery involves delivering very high doses of radiation quickly, using carefully shaped beams that focus on the tumor and minimize exposure of surrounding tissues and organs. This contrasts with conventional radiotherapy, which involves delivering just a little dose each day over a period of many weeks. According to Dr. Weaver, tumors of all types, including renal cell carcinoma(3) and others that can be resistant to conventional radiotherapy, have been shown to respond very well to radiosurgical procedures that deliver a very high dose quickly.(2) "Radiosurgery for the ablation of spinal tumors is becoming a more and more common approach," said Calvin Huntzinger, MS, senior director of surgical sciences at Varian. "We're gratified to see the increasing level of attention being paid to radiosurgery as a viable option for treating certain types of tumors, at neurosurgery programs like the annual AANS meeting." Varian's Trilogy medical linear accelerator is intended to provide stereotactic radiosurgery and precision radiotherapy for lesions, tumors, and conditions anywhere in the body where radiation treatment is indicated. It is

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Published on Medical Design Technology (<http://www.mdtmag.com>)

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not indicated for all types of cancer.

Stereotactic radiosurgery to the spine has been shown, in numerous clinical studies, to have minimal side effects. The most common ones are fatigue and temporary skin irritation, such as redness, dryness, scaliness, and itching in the vicinity of the treated area.

**ABOUT VARIAN MEDICAL SYSTEMS** Varian Medical Systems, Inc., of Palo Alto, California, is the world's leading manufacturer of medical devices and software for treating cancer and other medical conditions with radiotherapy, radiosurgery, and brachytherapy. The company supplies informatics software for managing comprehensive cancer clinics, radiotherapy centers and medical oncology practices. Varian is a premier supplier of tubes and digital detectors for X-ray imaging in medical, scientific, and industrial applications and also supplies high-energy X-ray devices for cargo screening and non-destructive testing applications. Varian Medical Systems employs approximately 5,900 people who are located at manufacturing sites in North America, Europe, and China and approximately 70 sales and support offices around the world. For more information, visit <http://www.varian.com> or follow us on Twitter.

(1) Bilsky MH et al. Spinal radiosurgery: a neurosurgical perspective. *Jour. Of Radiosurgery and SBRT*. 2011; 1: 47-54. (2) Gerszten PC et al. Radiosurgery for Spinal Metastases: Clinical Experience in 500 Cases From a Single Institution. *Spine*, January 15, 2007; 32(2): 193-199. (3) Gerszten PC et al. Stereotactic radiosurgery for spinal metastases from renal cell carcinoma. *J.*

*Neurosurg Spine*, 2005; 3:288-295.

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