New Perspective On Radiosurgery For Early-Stage, High-Risk Lung Cancer

(PRNewswire) *The Journal of Thoracic and Cardiovascular Surgery* has published an article summarizing the goals of an ongoing phase III study comparing radiosurgery with surgery for the treatment of early-stage, high-risk, operable non-small cell lung cancer. Appearing in the September 2012 issue, the article by the study chair and co-chair explains why this randomized study "is necessary and timely."

Stereotactic body radiotherapy (SBRT), a radiosurgical approach that attacks lung and other tumors using carefully-shaped, high dose X-ray beams, has been shown to be effective for treating early-stage, non-small cell lung cancer in patients who can't be operated on, the authors point out. SBRT is also sometimes referred to as stereotactic ablative body radiotherapy (SABR) for its "unique radiobiological characteristics that cause dramatic tumor response and high tumor control rates."

Standard-risk operable patients with lung cancer are usually treated with surgery to remove the affected lobe (lobar resection). Patients who cannot tolerate complete removal of a lobe, but who are still considered well enough to undergo general anesthesia, often referred to as "high-risk, operable" patients, are usually treated with sublobar resection, or removal of just a portion of a lobe. "Several investigators have suggested that SBRT might be equally effective for these high-risk operable patients," says Robert Timmerman, study co-chair. "We set up this randomized study to compare SBRT, which is a non-invasive therapy, with surgery. We'll be looking at patients' overall, disease-free, and regional recurrence-free survival rates three years after treatment, and also comparing adverse events and post-treatment quality of life measures."

"The primary objective of the study is to determine whether patients treated with SBRT have three-year overall survival rates that are no more than 10 percent less than patients treated with sublobar resection," said Hiran C. Fernando, MD, study chairman. "Although it is certainly attractive to patients to have a less invasive therapy, with lower risks, we need to know whether this translates into better cancer control or survival."

Sponsored by the U.S. National Cancer Institute (NCI), the study is being overseen by the Alliance for Clinical Trials in Oncology, an NCI-sponsored research cooperative that was formed in March 2011 from the merger of the American College of Surgeons Oncology Group, Cancer and Leukemia Group B, and the North Central Cancer Treatment Group. Referred to as ACOSOG Z4099/RTOG1021, the study plans to accrue 420 patients over a five-year period. As of September 2012, there were 55 cancer treatment centers that had met all requirements for becoming credentialed to participate in the study.

Last month, Varian Medical Systems became the exclusive corporate supporter of this study, specifically to support institutions, as well as the overall conduct of the trial by the Alliance for Clinical Trials in Oncology.