

ASTRO Issues Guidelines for Using High-dose Focused Radiation in Early-stage Lung Cancer

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The American Society for Radiation Oncology (ASTRO) has released new guidelines for treating inoperable lung cancer patients with stereotactic body radiation therapy (SBRT).

Based on evidence from numerous studies and clinical trials, the guidelines mainly focus on various high-risk situations where SBRT can be used to attempt to cure a patient.

The report, “Stereotactic Body Radiotherapy for Early Stage Non-Small Cell Lung Cancer: An ASTRO Evidence-Based Guideline” — published in the journal *Practical Radiation Oncology* — has received endorsements from the International Association for the Study of Lung Cancer, the European Society for Radiotherapy & Oncology and the Royal Australian and New Zealand College of Radiologists.

“With longer life expectancies and more sophisticated diagnostic tools, we have seen a rise in the incidence of early-stage lung cancer, including among patients who are not able to undergo surgery or choose not to do so. SBRT provides an option for

these patients, who otherwise may not have received curative, definitive treatment,” Dr. Gregory M.M. Videtic, a radiation oncologist at the Cleveland Clinic and co-chair of the task force that wrote the report, said in a press release. “Increasing access to this potentially life-saving treatment is essential to improve outcomes for the growing population of early-stage NSCLC patients.”

In contrast to traditional radiotherapy — which exposes a large part of the body to radiation — SBRT uses advanced computing to focus radiation on the tumor only. This allows much higher doses of radiation, but since healthy tissues are spared, toxic effects are minimal.

The guideline focused on SBRT in early-stage patients with non-small cell lung cancer (NSCLC) in cases where the tumor cannot be surgically removed. For instance, it details the use of the method in patients who require salvage therapy after earlier surgery or radiotherapy. But the recommendation also covers tumors that are difficult to treat because they have grown into the chest wall, or grow close to sensitive structures, such as the windpipe.

The same is true for particularly risky cases in which the tumor grows in a central location in the lung.

Although ASTRO’s focus was on inoperable patients, the team also looked at patients who can be operated on. The use of SBRT in such patients is controversial, and researchers reviewed earlier studies to determine when the method is appropriate to use in this patient group.

“NSCLC is a complex disease, with a great deal of heterogeneity among patients,” said Dr. Megan E. Daly, also co-chair of the task force and a radiation oncologist at the University of California Davis. “This guideline reinforces SBRT as the standard of care for medically inoperable patients, but it also examines the safety and efficacy of SBRT in less traditional clinical scenarios, such as patients with larger tumors or recurrent patients with early-stage disease.”