
RSNA Press Release

Outpatient Lung Cancer Procedure Promising for Inoperable Disease

Released: December 1, 2004

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CHICAGO - Lung cancer patients who are poor candidates for surgery have a new alternative with image-guided radiofrequency ablation (RFA), a safe and effective office-based procedure, according to a study presented today at the annual meeting of the Radiological Society of North America (RSNA).

"Experience leads me to believe that as lung cancer detection improves, we eventually will be able to avoid surgery by eradicating early-stage lung cancer with minimally invasive means," said study co-author Damian Dupuy, M.D., professor of diagnostic imaging at Brown Medical School and director of ultrasound in the Office of Minimally Invasive Therapy at Rhode Island Hospital in Providence.

Dr. Dupuy and colleagues studied 155 image-guided RFA lung procedures over six years on 126 medically inoperable patients, who had a total of 163 lesions. RFA uses a specially designed needle connected to a radiofrequency generator that delivers electrical current to ablate, or "cook," tumors. Computed tomography (CT) or ultrasound is used to guide the needle to the tumor site for ablation.

"Although the patients we treated were poor surgical candidates, the procedures went very well," Dr. Dupuy said. "Our complication rate was low, and morbidity and mortality rates were lower than those of lung surgery. Plus, RFA is an outpatient procedure with a tremendously condensed recovery period."

Approximately 174,000 Americans are diagnosed with lung cancer each year, according to the American Cancer Society, but Dr. Dupuy said surgery is not an option for the majority of them. In many cases the disease is too extensive for surgical removal, or there is an underlying disease such as emphysema, heart disease or other medical problems. Traditionally, these patients are treated with chemotherapy or radiation.

Dr. Dupuy and colleagues determined that RFA alone or in conjunction with chemotherapy

At A Glance

- Radiofrequency ablation (RFA) offers a safe, minimally invasive means of treating small lung tumors.
- The procedure can be used on patients who are considered poor surgical candidates.
- RFA can be completed in an outpatient setting and has a short recovery period.
- Ablation offers a chance to treat small metastatic tumors, providing patients with pain relief and reducing recovery times.

and radiation therapy is safe and feasible for treatment of primary lung tumors and tumors that metastasize from other parts of the body.

"The outpatient RFA procedure effectively controls small tumors, allowing these patients to avoid surgery," Dr. Dupuy said.

RFA is particularly beneficial for patients who have a lung cancer recurrence or regrowth and cannot have additional surgery or radiation therapy, Dr. Dupuy said.

"Ablation can relieve pain and control local symptoms in these patients," Dr. Dupuy said. "It does not necessarily extend their lives, but it can improve their quality of life."

Co-authors study are Caroline J. Simon, M.D., William W. Mayo-Smith, M.D., Thomas A. DiPetrillo, M.D., and Neal E. Ready, M.D.

Abstract:

- [Complications of Image-guided Percutaneous Lung Radiofrequency Ablation: Experience with 126 Patients \(Total of 163 Lesions Treated\) in 6 Years](#)

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RSNA is an association of more than 37,000 radiologists, radiation oncologists and related scientists committed to promoting excellence in radiology through education and by fostering research, with the ultimate goal of improving patient care. The Society is based in Oak Brook, Ill.