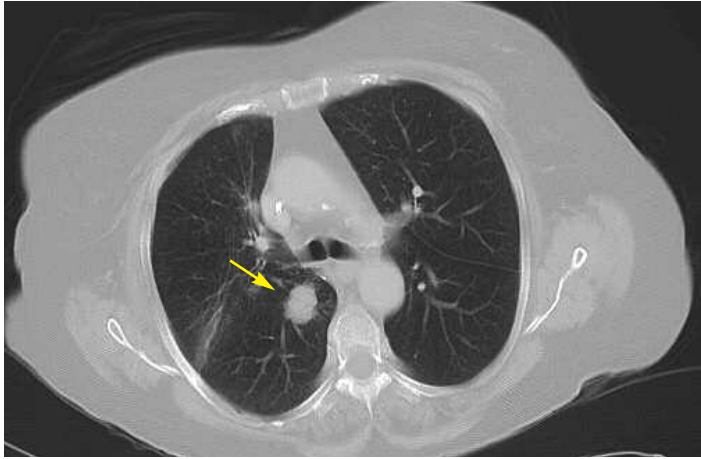
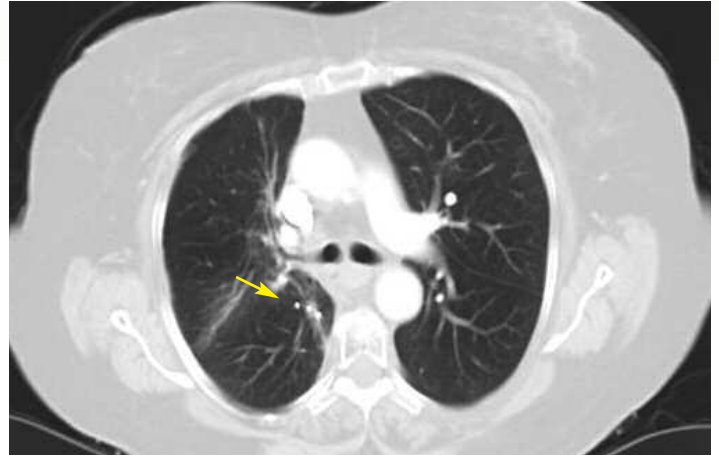


CASE STUDY

Recurrent Non-Small Cell Lung Cancer



Pre-treatment CT



15 months post-treatment CT. Near-complete response without surrounding pulmonary fibrosis

Patient History

In September of 2006, a 66-year-old woman underwent a pulmonary wedge resection of the right upper lobe of the lung for stage IA NSCLC. Routine follow-up PET/CT in May of 2007 showed a new 2.8 x 2.5 cm FDG-avid hypermetabolic mass in the right upper lung. She was given the option of 6 weeks of standard radiotherapy with or without chemotherapy versus only 3 CyberKnife radiosurgery treatments. She chose CyberKnife Stereotactic Radiosurgery.

CyberKnife® Advantage

CK radiosurgery is a noninvasive treatment option that involves high doses of radiation precisely targeted to the tumor **with continuous tracking of the tumor and patient position throughout each treatment without any need for respiratory gating and with a minimal exposure of radiation to the surrounding lung tissue.** No other radiation therapy or radiosurgery system offers this type of precision or degree of safety.

Treatment

While most peripheral lesions can be tracked without fiducial markers, the central location of this lesion required fiducials. These were placed as an outpatient by an interventional radiologist one week prior to her planning CT scan. On 7-10-07 the patient was brought into the CyberKnife Center and was placed in an immobilization device and fitted for a Synchrony tracking vest. A CT scan of the thorax was taken and the images were downloaded into the CyberKnife system for planning purposes. The medical physicist and the radiation oncologist developed a treatment plan. 6000 cGy prescribed to the 86% isodose line was delivered in 3 fractions with a 25 mm collimator. The patient's treatment was initiated on 7-24-07 and ended on 7-26-07. She tolerated the treatment well and resumed normal activities.

Outcome & Follow-Up

Two months post-CyberKnife, a CT showed considerable decrease from 3.3 cm to less than 1 cm. At 8 months post-treatment, a CT scan revealed further decrease of the treated lesion to 7.3 mm. A CT scan 15 months (10-27-08) post-CyberKnife showed a stable small density measuring a few mm in the right upper lobe. A CT taken 12-23-08 showed no disease progression.

If you would like your patient case reviewed at our weekly case conference, call 337-289-8070.

 **CyberKnife Center**
Louisiana
www.CyberKnifeLa.com