

Interstitial lung disease is a significant risk factor for lung inflammation

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Interstitial lung disease is a significant risk factor for lung inflammation following stereotactic body radiation therapy for lung cancer.

DENVER - Pretreatment [interstitial lung disease](#) (ILD) is a significant risk factor for developing symptomatic and severe radiation pneumonitis in stage I non-small cell [lung cancer](#) (NSCLC) [patients](#) treated with stereotactic body radiation therapy (SBRT) alone.

ILD is a group of diseases that cause scarring and stiffing of the tissue and space around the air sacs in the lungs, which results in diminished gas exchange. The incidence of ILD among lung cancer patients is higher than in the general population as tobacco smoking is a common risk factor for both. Some lung [cancer patients](#) with ILD may not be considered good candidates for surgical therapy. SBRT uses sophisticated techniques to deliver a targeted and focused radiation dose to a tumor in order to stop the growth locally with limited damage to surrounding healthy tissue. SBRT is considered an acceptable therapy choice for early-stage NSCLC patients who are not good candidates for or decline surgery.

In order to determine the optimal treatment for early-stage [lung cancer patients](#) with ILD, researchers at Kyoto University in Japan examined the incidence of radiation pneumonitis and the clinical outcomes in 157 patients who underwent SBRT alone for stage I NSCLC.

Results published in the [Journal of Thoracic Oncology](#), the official journal of the International Association for the Study of Lung Cancer (IASLC), show that of the 157 patients who received SBRT for lung cancer therapy, 20 were identified as having pretreatment ILD. The presence of ILD was a significant risk factor for both symptomatic and severe radiation pneumonitis and the cumulative incidence of radiation pneumonitis increased

significantly with worse ILD. Overall survival trended to be shorter in the ILD positive population but this was not statistically significant and may be accountable to the ILD itself. There were no differences in disease progression or local progression rates in patients with ILD versus those patients without.

"Our results suggest that the impact of ILD on radiation pneumonitis depends on the preexisting severity of the ILD findings and clinicians should be cautious when considering SBRT for those with significant ILD findings", say the authors. "However, other than radiation pneumonitis, life-threatening complications after SBRT are rare. Thus, if the severity of ILD and the risk of [radiation](#) pneumonitis are carefully evaluated, SBRT is a curative-intent treatment option for those with early-stage NSCLC and pretreatment ILD."

Provided by International Association for the Study of Lung Cancer

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