



## NSCLC TREATMENT IN DIFFICULT SITUATIONS: SBRT AS AN ALTERNATIVE

Meritxell Mollà  
*Radiation Oncology Hospital Clínic Barcelona*

Lung cancer is the leading cause of cancer-related deaths worldwide. Fewer than 20% are early stage non-small cell lung cancer (ES-NSCLC), the standard of care for the treatment of which is surgery. However, this approach is often not feasible in some situations due to cardiopulmonary reserve limitations or in patients with poor baseline PFT'S.

In recent years, stereotactic ablative radiation therapy (SABR) has become a guideline recommended treatment for medically inoperable patients, with excellent clinical results. SABR is a non-invasive treatment providing the delivery of a concentrated i.e focused radiation dose to the target volume thus minimizing the dose to the adjacent normal tissue(s).

SABR is being increasingly applied in demanding situations in ES-NSCLC i.e in cases at a higher risk of treatment-related toxicity. In these more complex patients, the risks vs. benefits of local treatments have to be appropriately individualized. In this review we selected two common clinical scenarios in the thoracic multidisciplinary tumor board, namely management of NSCLC in the setting of interstitial lung disease (ILD) and local treatment of ES- NSCLC in survivors of lung cancer with prior pneumonectomy.

5-10% of NSCLC patients having concurrent diagnosis of ILD, SABR-related toxicity are higher in ILD patients, especially in those with higher ILD-Gender-Age Physiology index. However, without treatment the median survival for ES-NSCLC is poor (6-14 months), so a carefully managed patient discussion regarding SBRT risks vs. benefits is required.

The second scenario is most favorable for SABR , despite the absence of multi-institutional and/or prospective studies. Furthermore, a systemic review of the literature shows that SABR appears to be safe and feasible option for ES-NSCLC in patients with prior pneumonectomy.