CLINICAL BOTTOM LINE

SLR and SABR are both reasonable alternatives to lobectomy in high-risk surgical patients. SABR is associated with reduced local recurrence (4 vs 20%; P = 0.07) and lower toxicity and should be considered when a wedge resection is planned due to anatomical location and size of the primary tumour in a patient who is high-risk for surgery. There is currently no clear consensus as to which treatment modality is better and ongoing trials are comparing SABR with surgery in this cohort of patients. Segmentectomy vs mediastinal lymph node dissection vs SABR and wedge resection ± brachytherapy vs SABR studies are needed to reach a firm conclusion on this debatable topic.

Conflict of interest: none declared.

REFERENCES


eComment. Is surgery still worthwhile as compared to stereotactic ablative radiotherapy or CyberKnife in high-risk surgical patients with Stage I non-small-cell lung cancer?

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We read with interest the best topic evidence by Mahmood and colleagues about the use of stereotactic ablative radiotherapy (SABR) versus sublobar resections (SLR) in high risk patients with Stage I non-small-cell lung cancer, with the conclusion that ‘SABR is an acceptable alternative to SLR in high-risk patients’ [1].

There are two new important papers which have just been published and which do not appear in this Best Topic Evidence. (1) The review of the literature by Senan and colleagues states that there is growing evidence suggesting that SABR achieves similar local control rates, but without the risks associated with surgery [2]. (2) Varlotto and coworkers find similar overall survival and disease-control in patients treated with SABR or surgery [3].

Moreover, we would like to point out that CyberKnife radiosurgery (a frameless image-guided radiotherapy system involving a 6-MV linear accelerator mounted on a robotic arm) allows to improve the local control achieved with SABR, with excellent oncologic results and even less toxicity [4].

In fact the CyberKnife is provided with a synchrony system, which enables 4D real-time tracking of tumours: it moves with respiration, so that moving tumours can be treated with an accuracy of 2 mm or less during normal respiratory acts [5].

In our opinion, according to the reported data, low toxicity of SABR, its good oncologic control rate and the possible further development of more accurate radiotherapy technique, like CyberKnife, could lead to progressive limitation of the use of surgery for the treatment of early stage I non-small-cell lung cancer in high-risk patients.

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References