Editorial

Video-assisted thoracoscopic lobectomy versus stereotactic radiotherapy for stage I lung cancer

Javier Aragón[1], Itzell Perez[1], Diego Gonzalez-Rivas[2]

[1]Department of thoracic surgery, Asturias University Central Hospital, Asturias, Spain; [2]Department of thoracic surgery at Coruña University Hospital and Minimally Invasive Thoracic Surgery Unit (UCTMI), Coruña, Spain

Correspondence to: Javier Aragón, MD. Department of Thoracic Surgery, Asturias University Central Hospital, Calle Carretera de Rubín, s/n, 33011 Oviedo, Asturias Oviedo, Spain. Email: javieraragon241064@gmail.com.

Submitted Jun 28, 2015. Accepted for publication Jun 28, 2015.
doi: 10.3978/j.issn.2072-1439.2015.07.04
View this article at: http://dx.doi.org/10.3978/j.issn.2072-1439.2015.07.04

With great interest we read the study of Hamaji *et al*. (1) entitled "Video-Assisted Thoracoscopic lobectomy Versus Stereotactic Radiotherapy for Stage I Lung Cancer" which was recently published in *Annals of Thoracic Surgery*. With a mean follow-up of 48 months, the authors show that lobectomy performed by video-assisted thoracoscopic surgery (VATS) offers better results than stereotactic radiotherapy (SBRT) in the treatment of patients with pathologically proved non-small cell lung cancer (NSCLC) in early stages.

Nowadays and according to current guidelines the surgery is the best therapeutic option for the treatment of early stages NSCLC (2-4); being the inoperability secondary to the high surgical risk the SBRT main indication. However, they have shown comparable results with VATS/SBRT in retrospective studies with matching cases (5) including studies with patients who were medically operable but refused surgery (6).

The study has been conducted exclusively in patients with NSCLC stage I and IIa potentially resectable who met adequate standards of operability. The paper attempts to analyze if the SBRT can be an elective valid therapeutic option comparable with the surgery and not as alternative when the patient's general conditions pose an unacceptable surgical risk. Theoretically the SBRT can provide many advantages to the patients: it's a treatment that doesn't require hospitalization, preserves more the lung function, could shortened waiting times and recovery of daily life, and the satisfaction degree and acceptance of the patient is greater. It can be especially useful in older patients who often tend to refuse surgery and who are more difficult to cooperate with postoperative rehabilitation measures.

Although at work the VATS group results are clearly better in both overall survival and cause specified as the recurrence rates, we consider the probability of lymph node involvement, not objectified in the SBRT group, could be adversely affected the results in this treatment group.

This is particularly important especially considering that different pathological strains are included, and some of them have specially propensity for lymphatic spread. For that reason it may be useful for futures studies include a systematic lymph node biopsy by endobronchial ultrasound (EBUS).

We have observed that in the VATS group they included some patients who had undergone chemotherapy, so it's difficult to know what is the impact of this factor about the results of this specific group of the study.

Similarly, the fact of the close monitoring of SBRT group was based on a TAC realization while in the VATS group was based on a simple physical examination, makes us think which could be underestimated the recurrence time in the operated patients.

As is the case with sublobar resections, it is difficult to compete with the anatomical lobar resection for obtaining good long-term results. Perhaps the SBRT is the ideal alternative to such resections and could support on similar inclusion criteria.

Acknowledgements

None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

References

1. Hamaji M, Chen F, Matsuo Y, et al. Video-assisted thoracoscopic lobectomy versus stereotactic radiotherapy for stage I lung cancer. Ann Thorac Surg 2015;99:1122-9.
2. Vansteenkiste J, De Ruysscher D, Eberhardt WE, et al. Early and locally advanced non-small-cell lung cancer (NSCLC): ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol 2013;24 Suppl 6:vi89-98.
3. Ettinger DS, Wood DE, Akerley W, et al. Non-small cell lung cancer, version 6.2015. J Natl Compr Canc Netw 2015;13:515-24.
4. Detterbeck FC, Lewis SZ, Diekemper R, et al. Diagnosis and Management of Lung Cancer, 3rd ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2013;143:7S-37S.
5. Verstegen NE, Oosterhuis JW, Palma DA, et al. Stage I-II non-small-cell lung cancer treated using either stereotactic ablative radiotherapy (SABR) or lobectomy by video-assisted thoracoscopic surgery (VATS): outcomes of a propensity score-matched analysis. Ann Oncol 2013;24:1543-8.
6. Onishi H, Shirato H, Nagata Y, et al. Stereotactic body radiotherapy (SBRT) for operable stage I non-small-cell lung cancer: can SBRT be comparable to surgery? Int J Radiat Oncol Biol Phys 2011;81:1352-8.

Cite this article as: Aragón J, Perez I, Gonzalez-Rivas D. Video-assisted thoracoscopic lobectomy versus stereotactic radiotherapy for stage I lung cancer. J Thorac Dis 2015;7(7):1074-1075. doi: 10.3978/j.issn.2072-1439.2015.07.04