Editorial

MDT is still important in the treatment of early stage lung cancer

Hongbing Liu, Yong Song

Department of Respiratory Medicine, Jinling Hospital, Nanjing University School of Medicine, Nanjing 210002, China

Correspondence to: Yong Song. Department of Respiratory Medicine, Jinling Hospital, Nanjing University School of Medicine, 305 East Zhongshan Road, Nanjing 210002, China. Email: yong_song6310@yahoo.com.

Comment on: Zhang Y, Shen J, Simone CB 2nd, *et al.* How to optimize the treatment strategy for patients with EGFR-mutant stage IA lung adenocarcinoma: an international multidisciplinary team. J Thorac Dis 2018;10:3883-90.

Submitted Aug 27, 2018. Accepted for publication Sep 18, 2018.
doi: 10.21037/jtd.2018.09.121
View this article at: http://dx.doi.org/10.21037/jtd.2018.09.121

Multidisciplinary Teams (MDT) are groups of professionals from various training backgrounds and disciplines who meet together to achieve a common goal (e.g., treating a patient) (1). The treatment of lung cancer has changed from a traditional model to an era of MDT. And NCCN guidelines have recommended that the diagnosis and treatment of lung cancer should be based on discussions among MDT experts. According to the British Cancer Guidelines, all patients with confirmed tumors must undergo a MDT consultation before receiving treatment.

Why does lung cancer's treatment need a MDT's discussion? There are many treatments for lung cancer, such as surgery, chemotherapy, radiotherapy, targeted therapy, immunotherapy and palliative therapy. These treatments involve departments such as respiratory, oncology, radiotherapy, thoracic surgery, pathology and laboratory. Doctors in each department have limited medical backgrounds, and the different treatment options for lung cancer are intertwined and combined. A MDT needs to make a comprehensive judgement on the treatment of lung cancer.

What benefits can patients get from a MDT when compared with traditional treatment modalities? First, through the consultation by a MDT of experts, the patient's treatment plan can be more optimized. Secondly, multidisciplinary experts also provide treatment schemes for patients, which greatly reduces the time of patients' consultation and improves the efficiency of diagnosis and treatment. Third, economically, patients can also save the cost of visiting a number of departments. The treatment measures in this article are consulted by the international MDT (iMDT), which can provide a more optimized treatment regimen.

The postoperative stage of lung cancer in this case is IA. Postoperative molecular pathology suggested an epidermal growth factor receptor (EGFR) exon19 del. and after six months of erlotinib treatment, what we saw was that adjuvant targeted therapy at six months after surgery did not significantly prolong the disease-free survival (DFS) rate in patients. In the ADJUVANT study, the non-small cell lung cancer (NSCLC) patients with stage II–IIIA (N1–N2) and EGFR activation mutation were enrolled, and the median DFS postoperative targeting group was more than 10 months longer than the chemotherapy group (28.7 *vs.* 18.0 months) (2). In another post-operative adjuvant targeting therapy study (EVAN), the study enrolled the NSCLC patients with stage IIIA and *EGFR* gene mutation later after surgery. The results of this study were better than those of the ADJUVANT. The DFS was prolonged by nearly 22 months (42.41 *vs.* 20.96 months, HR =0.268, P<0.001) (3). From these two studies, we seem to see that patients with a later stage after surgery benefitted more from a targeted therapy.

For patients with stage I, can they benefit from a targeted therapy after surgery? In the RADIANT study, we found that nearly half of the lung cancer patients with an IB stage had undergone surgery, and no positive results were obtained even in a subgroup analysis of EGFR-sensitive mutations (4). Therefore, we speculate that patients with stage IA will not benefit from a targeted therapy after surgery; therefore, it is not recommended that NSCLC patients with stage IA receive adjuvant targeted therapy after surgery. According to the molecular pathology after surgery, systemic targeted therapy plus a local therapy can

be selected for these patients.

For early stage lung cancer patients, the choice of a stereotactic ablative radiotherapy (SARB)/stereotactic body radiation therapy (SBRT) or surgical treatment has been controversial. In 2015, Chang *et al.* aggregated ROSEL and STARS datasets, and there was no statistically significant difference between the surgical group and the SBRT/SABR groups (5). But what we need to see is that this research is to combine two unfinished studies. The evidence level of the research results has been reduced. But Chang *et al.* published the results of a seven-year follow-up study of the phase II prospective randomized controlled trials in 2017, the longest follow-up study of prospective clinical trials compared with SBRT (6). The results of the study still draw a positive conclusion. These studies have shown that SBRT can be used in patients with stage I lung cancer, especially those who are older, have poor cardiopulmonary functions, and are reluctant to undergo surgery. Surgical treatment is still the standard treatment for early stage lung cancer patients, it should be said that the status has not yet shaken.

Several studies have shown that local treatment can benefit patients with advanced lung cancer with oligometastases (7). But can local treatment benefit patients with an advanced lung cancer with multiple metastases? Although only some small, clinical studies have confirmed this, patients can benefit from it (8). However, more large-scale, clinical studies are still needed to confirm further. And for multiple metastases, how many are good, there is still no corresponding clinical study to confirm.

In conclusion, many problems remain unsolved in the treatment of early stage lung cancer. MDT is still important. The discussion of MDT has made the treatment of lung cancer more rationalized. Especially iMDT is what we advocate.

Acknowledgements

None.

Footnote

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

References

1. Preedy VR, Watson RR. Handbook of Disease Burdens and Quality of Life Measures. Springer, New York, NY, 2010.
2. Zhong WZ, Wang Q, Mao WM, et al. Gefitinib versus vinorelbine plus cisplatin as adjuvant treatment for stage II-IIIA (N1-N2) EGFR-mutant NSCLC (ADJUVANT/CTONG1104): a randomised, open-label, phase 3 study. Lancet Oncol 2018;19:139-48.
3. Yue D, Xu S, Wang Q, et al. Erlotinib versus vinorelbine plus cisplatin as adjuvant therapy in Chinese patients with stage IIIA EGFR mutation-positive non-small-cell lung cancer (EVAN): a randomised, open-label, phase 2 trial. Lancet Respir Med 2018. [Epub ahead of print].
4. Kelly K, Altorki NK, Eberhardt WE, et al. Adjuvant Erlotinib Versus Placebo in Patients With Stage IB-IIIA Non-Small-Cell Lung Cancer (RADIANT): A Randomized, Double-Blind, Phase III Trial. J Clin Oncol 2015;33:4007-14.
5. Chang JY, Senan S, Paul MA, et al. Stereotactic ablative radiotherapy versus lobectomy for operable stage I non-small-cell lung cancer: a pooled analysis of two randomised trials. Lancet Oncol 2015;16:630-7.
6. Sun B, Brooks ED, Komaki RU, et al. 7-year follow-up after stereotactic ablative radiotherapy for patients with stage I non-small cell lung cancer: Results of a phase 2 clinical trial. Cancer 2017;123:3031-9.
7. Iyengar P, Wardak Z, Gerber DE, et al. Consolidative Radiotherapy for Limited Metastatic Non-Small-Cell Lung Cancer: A Phase 2 Randomized Clinical Trial. JAMA Oncol 2018;4:e173501.
8. Gomez DR, Blumenschein GR Jr, Lee JJ, et al. Local consolidative therapy versus maintenance therapy or observation for patients with oligometastatic non-small-cell lung cancer without progression after first-line systemic therapy: a multicentre, randomised, controlled, phase 2 study. Lancet Oncol 2016;17:1672-82.

(English Language Editor: Jeremy Dean Chapnick, AME Publishing Company)

Cite this article as: Liu H, Song Y. MDT is still important in the treatment of early stage lung cancer. J Thorac Dis 2018;10(Suppl 33):S3984-S3985. doi: 10.21037/jtd.2018.09.121

