Despite the recent CREST trial demonstrating a survival benefit to thoracic radiotherapy (TRT) for extensive-stage small cell lung cancer (ES-SCLC) patients with response to chemotherapy, as well as endorsement by current NCCN guidelines, TRT may not be uniformly delivered in clinical practice across all circumstances.

OBJECTIVE

- Through a survey of academic thoracic radiation oncologists, we hoped to better understand how current practice patterns have been altered by the CREST Trial, which called for “all patients” with ES-SCLC to receive chest irradiation.

MATERIALS AND METHODS

- We surveyed 111 US academic thoracic radiation oncologists, from 72 separate institutions, who self-identified as thoracic/lung cancer specialists.
- The 27-question survey gathered demographic information and practice patterns, including 5 clinical cases, regarding utilization of TRT in ES-SCLC and conditions in which withholding TRT could be warranted.
- Responses were anonymous and were recorded with Google (N=42) or Word documents (N=1).
- Responses were stored on a password-protected Google drive accessible only to one author of this study.
- Statistical analysis and tabulation was done with Google drive.

RESULTS

- The overall response rate was 39% (43/111).
- The phase III CREST and phase II NRG/RTOG 0937 trials were known by 95% and 93% of respondents, respectively.
- Respondent baseline utilization of TRT for ES-SCLC varied, with 21% using it in one-quarter or fewer of their patients and 44% using it in more than half of their patients.
- 58% would withhold TRT if tumor progression occurred during chemotherapy, whereas 28% would give TRT regardless of chemotherapy response. Sixty percent of respondents would deliver fractions every other day, whereas 40% would deliver fractions daily.
- Despite the presence of extrathoracic metastases before and after chemotherapy, 67% and 23% would administer TRT, respectively.
- 54% would offer TRT regardless of number of brain metastases.
- 26% and 58% would withhold TRT if ≥2 other areas of active disease were present before and after chemotherapy, respectively.
- 62% would withhold TRT if the patient required oxygen via nasal cannula continuously throughout the day.

CONCLUSIONS

- The role of TRT in ES-SCLC is still controversial, though there are data to support its use in two randomized trials, a recent meta-analysis, and the NCCN guidelines.
- Currently in the United States, there is no consensus with regard to offering TRT for ES-SCLC.
- ECOG PS ≥3 (91%), pulmonary function (continuous nasal cannula oxygen) (62%), and presence of numerous (≥4) sites of post-chemotherapy extrathoracic metastases (58%) were the factors most linked to withholding TRT.
- These findings can help to optimize inclusion criteria and trial designs of future trials for patients with ES-SCLC.
- Further study on subgroups of ES-SCLC patients will be needed to better assess which patients benefit most from TRT.