STEREOTACTIC ABLATIVE RADIOTHERAPY AND DURVALUMAB: THE BACKBONE OF UNRESECTABLE LOCALLY ADVANCED NON SMALL CELL LUNG CANCERS UNFIT TO CONCURRENT CHEMO-RADIOTHERAPY: RIB OF START-NEW-ERA TRIAL

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Aims

Several real world experiences have been reported safety and effectiveness of Durvalumab after concurrent or sequential chemo-radiotherapy (Cht-RT) in locally advanced non-small cell lung cancer (LA-NSCLC) patients. There is a lack of data after sequential ChT-hypofractionated RT. In single arm phase 2 trial (Clinical trials.gov NCT05291780) we assessed local control (LC) and safety of stereotactic ablative radiotherapy (SAbR) in unresectable LA-NSCLC patients unfit for concurrent chemo-radiotherapy (Cht-RT) [1]. Here we report clinical outcomes of SAbR in LA-NSCLC patients treated with radical-intent based on PACIFIC trial.

Methods

Between December 31, 2015 and June 30, 2022 71 LA-NSCLC patients were enrolled. 40 (56%) fit patients received neoadjuvant Cht and 15 (37%) received Durvalumab. The tumor volume included primary tumor (T) and any regionally positive node/s (N). The co-primary study endpoints were LC and safety.

Results

The median age was 71 years (range, 52-78). Histology was adenocarcinoma (ADC) and squamous cell carcinoma (SCC) and in 9 (60%) and 6 (40%), respectively. The stage was IIIA, IIIB and IIIC in 7 (47%), 5 (33%) and 3 (20%) patients, respectively. Median prescribed dose was 45 Gy (range, 40-50) and 40 Gy (35-50) in 5 daily fractions to T and N, respectively. After a median follow-up of 16 months (range, 6-62), 4 (27%) patients had experienced local recurrence (LR) at a median time of 13 months (range, 7-34). The median LR-free survival (FS) was 34 months (95% CI, 14 to 34). The 1-, 2- and 4-year LR-FS rates were 92±8%, 72±14% and 48±22%, respectively. At last follow-up, 23 (38%) patients were alive. Median overall survival (OS) was 50 months (95% CI, 31-55). The 1, 2, and 4-year OS rates were 92±5%, 70±8% and 51±9%, respectively. 4 (27%) patients developed distant progression (DP). The median d-PFS was not reached (95% CI, 14 to not reached). The 1, 2, and 4-year d-PFS rates were 100%, 50±19% and 50±19%, respectively. 7 patients had disease recurrence, 4 and 3 during and after completion of Durvalumab. The pattern of disease recurrence was distant and local in 4 and 3 patients, oligo-metastatic disease recurrence in 6/7 patients. Two (13%) discontinued Durvalumab due to esophageal and lung G3 toxicity.

Conclusions

LA-NSCLC patients treated with SAbR had optimal LC and promising OS with low rate of G3 toxicity. Our early outcomes would suggest the feasibility of using this approach in LA-NSCLC patients unfit for concurrent ChT-RT.


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