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Title: Tislelizumab Plus Standard Chemotherapy and Health Related Quality of Life In Patients With Advanced Squamous Non-Small Cell Lung Cancer

Background:

This study assessed the effects of adding tislelizumab to first-line standard-of care chemotherapy on the health-related quality of life (HRQoL) of patients with advanced squamous non-small cell lung cancer (SQ NSCLC).

Methods:

Patients in this open-label, multicenter Phase 3 study (NCT03594747), were randomized to 3 arms: tislelizumab + carboplatin and paclitaxel (Arm A), tislelizumab + carboplatin and *nab*-paclitaxel (Arm B), or paclitaxel + carboplatin (Arm C). HRQoL was measured using the EORTC QLQ-C30 and EORTC QLQ-LC13 at baseline though cycle 5 in all Arms, and cycle 17 for Arms A and B. Current analyses focused on baseline through cycle 5 for which all the three arms had completed HRQoL questionnaires.

Results:

360 SQ NSCLC patients, 91.7% male with median age of 62 years (range 34-74), were randomized (Arm A=120, Arm B=119, Arm C=121). Baseline characteristics were comparable across the 3 treatment arms and were representative of the target patient population. The global health status/QoL scores improved for Arms A [mean change=2.8 (SD=23.2)] and B [mean change=3.9 (SD=18.00)] but declined in Arm C [mean change=-1.3 (SD=19.4)] by cycle 5. Arm A [mean change = -20.1 (SD = 29.2)] and B [mean change = -12.7 (SD = 33.8)] experienced a larger reduction in coughing at cycle 5 compared to Arm C [mean change = -7.3 (23.2)]. Similarly, Arms A [mean -1.9 (SD = 18.1) and B [(mean change = -1.8 (SD = 15.2)] experienced a reduction in dyspnea while Arm C [mean change = 2.4 (SD = 15.2)] experienced more symptoms. All three Arms experienced a reduction in hemoptysis at cycle 5 with the larger reductions observed for Arms A [mean change = -9.4 (19.8)] and B [mean change = -9.4 (SD = 26.8)] compared to C [mean change = -2.3 (SD = 19.4)]. No clinical differences were observed between the three arms in pain items with all three reporting a reduction in pain symptoms.

Conclusion:

The addition of tislelizumab to platinum-based chemotherapy is associated with clinically meaningful improvements in SQ NSCLC patients' HRQoL, especially in general health status/ QoL and most importantly in the lung cancer specific symptoms including coughing, dyspnea and hemoptysis.