1438P Cemiplimab for advanced non-small cell lung cancer: Squamous subgroup analysis for EMPOWER-Lung 1 and 3

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Background: Outcomes for patients (pts) with squamous non-small cell lung cancer (NSCLC) treated with immunotherapy are generally poorer than pts with non-squamous NSCLC and have fewer treatment options. We report an exploratory subgroup analysis of pts with squamous NSCLC who were treated with cemiplimab from two phase 3 clinical trials.

Methods: EMPOWER-Lung 1 (NCT03088540) and EMPOWER-Lung 3 (NCT03409614; part 2) included pts with squamous or non-squamous advanced NSCLC without EGFR, ALK or ROS1 aberrations. In EMPOWER-Lung 1, pts with ≥50% programmed cell death-ligand 1 (PD-L1) were randomized 1:1 to first-line (1L) cemiplimab monotherapy or platinum-doublet chemotherapy (chemo). In EMPOWER-Lung 3, pts irrespective of PD-L1 level were randomized 2:1 to 1L cemiplimab + chemo or placebo + chemo.

Results: In both trials, ∼43% of pts had squamous histology. In EMPOWER-Lung 1, at median follow-up of 37.1 mo, for squamous pts treated with cemiplimab vs chemo, median overall survival (OS) was 22.7 vs 13.5 mo (HR: 0.51; 95% CI: 0.37, 0.69), and median progression-free survival (PFS) was 8.3 vs 5.9 mo (HR: 0.44; 95% CI: 0.32, 0.59). The objective response rate (ORR) was 43.9% vs 22.1%, and the median duration of response (DOR) was 16.0 mo (95% CI: 10.4, 33.0) vs 4.3 mo (95% CI: 4.2, 6.1), respectively. In EMPOWER-Lung 3 part 2, at a median follow-up of 28.4 mo, for squamous pts treated with cemiplimab + chemo vs placebo + chemo, median OS was 22.3 vs 13.8 mo (HR: 0.61; 95% CI: 0.42, 0.87), and median PFS was 8.2 vs 4.9 mo (HR: 0.56; 95% CI: 0.41, 0.78). ORR was 46.6% vs 26.9%, and the median DOR was 13.8 mo (95% CI: 11.0,18.2) vs 11.3 mo (95% CI: 4.2, 21.4), respectively. Patient reported outcomes and safety results will be described for both studies in the presentation.

Table: 1438P

	EMPOWER-Lung 1† Squamous	EMPOWER-Lung 3 Part 2 Squamous
	Cemiplimab (n = 123) vs chemo (n = 122)	Cemiplimab + chemo (n = 133) vs placebo + chemo (n = 67)
OS, median, mo	22.7 vs 13.5	22.3 vs 13.8
OS HR (95% CI)	0.51 (0.37, 0.69)	0.61 (0.42, 0.87)
PFS, median, mo	8.3 vs 5.9	8.2 vs 4.9
PFS HR (95% CI)	0.44 (0.32, 0.59)	0.56 (0.41, 0.78)
ORR, %	43.9 vs 22.1	46.6 vs 26.9
DOR, median (95% CI), mo	16.0 (10.4, 33.0) vs 4.3 (4.2, 6.1)	13.8 (11.0,18.2) vs 11.3 (4.2, 21.4)

†PD-L1 ≥50% population. Data cutoff dates: EMPOWER-Lung 1: 4 Mar 2022; EMPOWER-Lung 3 Part 2: 14 June 2022.

Conclusions: Subgroup analysis with long-term follow up data from two large phase 3 studies demonstrate improved clinical benefit of cemiplimab as 1L monotherapy or in combination with platinum-doublet chemo over chemo alone in pts with squamous NSCLC.

Clinical trial identification: NCT03088540; NCT03409614.

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1439P Brain radiotherapy combined with camrelizumab and platinum-based chemotherapy as first-line treatment for advanced NSCLC with brain metastases: A multicenter, open-label, single-arm, phase II study

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Background: Preclinical data have shown a synergistic effect of radiotherapy (RT) combined with immunotherapy. However, the effect of combining RT with immunotherapy remains unknown for advanced NSCLC with brain metastases (BMs). This study aimed to assess the preliminary efficacy and safety of brain RT combined with camrelizumab plus platinum-based chemotherapy as first-line treatment in NSCLC patients (pts) with BMs.

Methods: Treatment-naïve pts with NSCLC and BMs were adults who had no known EGFR/ALK/ROS1 alterations and had at least one measurable intracranial and extracranial lesions per RECIST 1.1. Eligible pts received camrelizumab (200 mg) and platinum-based chemotherapy intravenously every 3 weeks for 4-6 cycles after stereotactic radiosurgery or whole-brain RT. Subsequently, pts without disease progression received maintenance treatment with camrelizumab ± pemetrexed every 3 weeks up to 24 months, or until disease progression or intolerance. The primary endpoint was 6-month progression-free survival (PFS) rate.

Results: Between May 6, 2020 and April 25, 2023 (data cutoff), 65 pts were enrolled and treated. The primary endpoint 6-month PFS rate was 70.2% (95% CI 56.3-80.4). With a median follow-up of 11.2 months (95% CI 9.0-17.0), the median PFS was 8.7 months (95% CI 7.5-15.7), and median overall survival was 21 months (95% CI 15.1-NE). Of the 65 pts, 49 (75.4%) pts had a confirmed partial response and 14 (21.5%) had stable disease, with the overall objective response rate (ORR) and disease control rate of 75.4% (95% CI 63.1%-85.2%) and 96.9% (95% CI 89.3%-99.6%). The intracranial ORR was 81.5% (95% CI 70%-90.1%). Adverse events (AEs) of any grade occurred in 64 (98.5%) of the 65 pts, and grade 3 or 4 AEs were observed in 32 (49.2%) pts, with the most common being neutrophil count decreased (14 [21.5%]) and white blood cell count decreased (11 [16.9%]). No treatment-related deaths occurred.

Conclusions: The combination of brain radiotherapy, camrelizumab and platinum-based chemotherapy showed promising efficacy and manageable toxicity for treatment-naïve advanced NSCLC with BMs.

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