

PD-(L)1 inhibitors for first-line treatment of ES-SCLC in Asian and non-Asian patients: a meta-analysis

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Background: Extensive-stage small cell lung cancer (ES-SCLC) accounts for most SCLC cases and is associated with poor prognosis. Programmed cell death protein-(ligand) 1 (PD-[L]1) inhibitors are established first-line (1L) treatments for patients (pts) with metastatic ES-SCLC, but their comparative effectiveness in Asian vs non-Asian pts is unclear.

Methods: A meta-analysis was conducted to assess the efficacy and safety of combination therapy with PD-(L)1 inhibitors and platinum-based chemotherapy in Asian and non-Asian pts with 1L ES-SCLC. Analyses were based on 7 randomized controlled phase 3 studies (3 Global, 4 China). Overall survival (OS) and progression-free survival (PFS) hazard ratios (HRs) were synthesized using fixed or random effect models.

Results: In total, 5517 records were screened and seven 1L studies with 3339 pts with ES-SCLC were identified. OS favored PD-(L)1 inhibitor combination therapy vs control in overall populations across all studies (HR=0.73; 95% CI: 0.67-0.79). The magnitude of OS benefit was similar in Asian (HR=0.75; 95% CI: 0.68-0.83) and non-Asian (HR=0.73; 95% CI: 0.63-0.84) pts. Similarly, PFS favored PD-(L)1 inhibitor + chemotherapy vs control in overall populations across all studies (HR=0.67; 95% CI: 0.59-0.76). The magnitude of PFS benefit was comparable in Asian (HR=0.68; 95% CI: 0.61-0.76) and non-Asian (HR=0.72; 95% CI: 0.58-0.90) pts. Six studies reported treatment-related adverse events (TRAEs). Overall, TRAE and immune-mediated adverse event rates were numerically higher in some Asian sub-populations than in the overall populations. Variations may have been related to differences in reporting patterns between regions and over different time periods, making direct comparisons between subgroups difficult. Limitations of this meta-analysis included heterogeneity of study populations and follow-up durations.

Conclusion: This meta-analysis demonstrates the comparability in efficacy and safety of PD-(L)1 inhibitors for 1L ES-SCLC in both Asian and non-Asian pts. More real-world evidence at the regional level will confirm long-term clinical benefits and tolerability in specific pt populations.