

Clinical outcomes of second-line (2L) treatments (txs) in locally advanced or metastatic esophageal squamous cell carcinoma (ESCC): a systematic literature review (SLR)

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ABSTRACT

Objectives: Clinical guidelines provide limited alternatives to chemotherapy (CT) for the 2L tx of ESCC. A SLR and subsequent update were performed to describe the clinical outcomes of studies comparing immunotherapy (IO) vs CT in 2L ESCC.

Methods: English language publications (inception – '22) were searched in Embase, MEDLINE, and Cochrane Library; non-indexed conferences and specific trial registries were manually searched (2020 – '22). Efficacy, safety and health-related quality of life (HRQoL) outcomes were extracted.

Results: Six studies were identified evaluating the following txs: tislelizumab, pembrolizumab, nivolumab, camrelizumab, sintilimab, and nivolumab + ipilimumab. IO was administered as monotherapy unless noted otherwise. Where reported, studies excluded patients receiving IO in 1L. Median overall survival (OS) and progression-free survival (PFS) ranged between 7.2–10.9 (IO) vs 6.2–8.5 (CT), and 1.6–2.7 (IO) vs 1.9–3.4 (CT) months, respectively. All IOs except nivolumab + ipilimumab demonstrated a clinically meaningful benefit in OS vs CT. Numerically longer PFS was reported for CT vs IO, except for camrelizumab where median PFS was the same in both arms. The overall response rate (ORR) of tislelizumab, pembrolizumab, camrelizumab, and sintilimab was between 12.6–20.3% vs 6.3–9.8% for CT (statistical significance not reported). The ORR for nivolumab monotherapy was 19.3% vs 21.5% for CT. Across all studies except the nivolumab + ipilimumab study (which did not report adverse events [AEs] for the historical control arm), fewer patients experienced grade ≥3 treatment-related AEs with IO vs CT. All studies implemented the EORTC-QLQ or the EQ-5D to assess HRQoL, or both. Acknowledging instrumentation and data collection differences across studies, tislelizumab, nivolumab, and camrelizumab maintained or improved HRQoL vs CT.

Conclusions: Compared to CT, IO monotherapy demonstrated a clinical benefit in OS and HRQoL while offering a better safety profile. Continued introduction of novel treatments for 2L ESCC may improve patient outcomes.