

13190

Perioperative camrelizumab plus chemotherapy in locally advanced squamous cell carcinoma of the head and neck (CAMORAL): A multicenter, open-label, randomized, phase II Study

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Background

While neoadjuvant chemoimmunotherapy for locally advanced head and neck squamous cell carcinoma (HNSCC) has shown promising pathological remission, long-term outcomes of this strategy remain unclear. Here, we aimed to determine survival outcomes of neoadjuvant-adjuvant treatment with the programmed cell death receptor 1 (PD-1) camrelizumab and chemotherapy in HNSCC patients.

Methods

This multicenter, open-label, randomized, phase II trial enrolled patients aged 18-75 years with previously untreated, resectable stage III-IVb HNSCC. Eligible patients were randomized (1:1) to receive either two 3-week cycles of albumin-bound paclitaxel (100 mg/m² on Days 1, 8, 15), carboplatin (area under the curve [AUC] 5 on Day 1), and camrelizumab (200 mg on Day 1), followed by surgery, risk-adapted adjuvant radiotherapy, and up to 15 doses of camrelizumab (neoadjuvant-adjuvant group), or upfront surgery followed by risk-adapted adjuvant radiotherapy/chemoradiotherapy (control group). The primary endpoint was 2-year event-free survival (EFS). Secondary endpoints were 2-year overall survival (OS), major pathological response (MPR), pathological complete response (pCR), and safety.

Results

A total of 125 patients were randomized to neoadjuvant-adjuvant group (n=63) or control group (n=62). At the time of analysis, the median follow-up was 24.6 months. The 2-year EFS rate was 77.8% in the neoadjuvant-adjuvant group versus 46.1% in the control group (hazard ratio [HR] for progression, recurrence, or death, 0.344; 95% confidence interval [CI], 0.174-0.678; P=0.0020), and the corresponding 2-year OS was 92.0% and 69.1%, respectively (HR, 0.253; 95% CI, 0.101-0.636; P=0.0035). MPR and pCR were observed in 47.6% and 25.4% of patients in the neoadjuvant-adjuvant group, respectively. Grade ≥3 treatment-related adverse events occurred in 58.7% of patients in the neoadjuvant-adjuvant group and 21.0% in the control group.

Conclusions

Neoadjuvant camrelizumab plus chemotherapy significantly improved 2-year EFS in patients with resectable locally advanced HNSCC, without compromising treatment safety.

Clinical trial identification

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Legal entity responsible for the study

The authors.

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Disclosure

All authors have declared no conflicts of interest.

