

NETWORK META-ANALYSIS OF IMMUNOTHERAPIES IN UNTREATED ADVANCED OR METASTATIC ESOPHAGEAL SQUAMOUS CELL CARCINOMA

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3. Literature reviews

2SPD-008

BACKGROUND

ESCORT-1st trial reported a **benefit** for **OS** of **camrelizumab plus chemotherapy** (Cam+CT) combination over chemotherapy (CT) in September 2021. **Regimens with platinum agents** have been the **standard first-line treatment** for advanced or metastatic esophageal squamous cell carcinoma (**mESCC**) for decades.

AIM

To develop a network meta-analysis (**NMA**) to provide an **efficacy** comparison of treatments for untreated patients with **mESCC**.

MATERIAL AND METHODS

A **review** in Pubmed and UpToDate databases was conducted on **3 October 2021**

1. Review in Pubmed and EMA

Inclusion criteria

✓ RCTs including immune checkpoints inhibitor therapies (camrelizumab, pembrolizumab, nivolumab and ipilimumab) as first-line treatment of mESCC

Exclusion criteria

✓ RCTs without a common comparator linking cited drugs

2. Efficacy endpoint: OS.

3. NMA

- ✓ NMA used **combined direct and indirect** evidence to estimate pooled hazard ratios (HR) by **bayesian methods**.
- ✓ **Fixed-** and **random-effects** were considered.
- ✓ Deviance information criteria (**DIC**) statistics were evaluated to compare models.
- ✓ **I²** determined the proportion of **variability** in outcomes due to heterogeneity.

RESULTS

3 RCTs selected

- **Regimens:** **Cam+CT**, nivolumab plus ipilimumab (**N+I**), nivolumab plus chemotherapy (**N+CT**), pembrolizumab plus chemotherapy (**Pem+CT**) and **CT**.
- **Common comparator:** **CT**.
- **Inclusion criteria:** two RCTs included patients with 0-1 performance status (ECOG). Cam+CT: patients with life expectancy ≥ 12 weeks. Results of N+I and N+CT: congress abstract.
- **DIC:** Similar values of DIC (difference < 5 , no minimum relevance) for fixed- and random-effects models. Fixed-effects model selected due to the higher precision of data.
- **I²:** 25%.

Comparador: Cam+CT

Hazard Ratio (95% CrI)

N+I
N+CT
Pem+CT
CT

1.1 (0.81, 1.5)
1.1 (0.78, 1.4)
1.0 (0.76, 1.4)
1.4 (1.1, 1.8)

"No statistically significant differences among Cam+CT, Pem+CT, N+CT and N+I"
"All schemes with immune checkpoints inhibitor drugs were superior to CT"

CONCLUSION

This **NMA** showed a **greater efficacy** benefit of **combinations with immunotherapeutic** agents over CT in **untreated patients with mESCC**. Standard first-line therapy could be modified. Safety and efficiency criteria should also be considered in the therapeutic positioning of drugs in this clinical context.

CONTACT DATA

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