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Oesophagus

Ten-Year Outcome of Neoadjuvant Chemoradiotherapy Plus Surgery for Oesophageal Cancer: The Randomised Controlled CROSS Trial.

Eyck BM, van Lanschot JJB, Hulshof MCCM, van der Wilk BJ, Shapiro J, van Hagen P, van Berge Henegouwen MI, Wijnhoven BPL, van Laarhoven HWM, Nieuwenhuijzen GAP, Hospers GAP, Bonenkamp JJ, Cuesta MA, Blaisse RJB, Busch OR, Creemers GM, Punt CJA, Plukker JTM, Verheul HMW, Spillenaar Bilgen EJ, van der Sangen MJC, Rozema T, Ten Kate FJW, Beukema JC, Piet AHM, van Rij CM, Reinders JG, Tilanus HW, Steyerberg EW, van der Gaast A; CROSS Study Group.

J Clin Oncol. 2021 Apr 23: JCO2003614. doi: 10.1200/JCO.20.03614.

PURPOSE

Preoperative chemoradiotherapy according to the chemoradiotherapy for oesophageal cancer followed by surgery study (CROSS) has become a standard of care for patients with locally advanced resectable oesophageal or junctional cancer. We aimed to assess long-term outcome of this regimen.

METHODS

From 2004 through 2008, we randomly assigned 366 patients to either five weekly cycles of carboplatin and paclitaxel with concurrent radiotherapy (41.4 Gy in 23 fractions, five days per week) followed by surgery, or surgery alone. Follow-up data were collected through 2018. Cox regression analyses were performed to compare overall survival, cause-specific survival, and risks of locoregional and distant relapse. The effect of neoadjuvant chemoradiotherapy beyond five years of follow-up was tested with time-dependent Cox regression and landmark analyses.

RESULTS

The median follow-up was 147 months (interquartile range, 134-157). Patients receiving neoadjuvant chemoradiotherapy had better overall survival (hazard ratio [HR], 0.70; 95% Cl, 0.55 to 0.89). The effect of neoadjuvant chemoradiotherapy on overall survival was not time-dependent (*P* value for interaction, *P* = .73), and landmark analyses suggested a stable effect on overall survival up to 10 years of follow-up. The absolute 10-year overall survival benefit was 13% (38% *v* 25%). Neoadjuvant chemoradiotherapy reduced risk of death from oesophageal cancer (HR, 0.60; 95% Cl, 0.46 to 0.80). Death from other causes was similar between study arms (HR, 1.17; 95% Cl, 0.68 to 1.99). Although a clear effect on isolated locoregional (HR, 0.40; 95% Cl, 0.21 to 0.72) and synchronous locoregional plus distant relapse (HR, 0.43; 95% Cl, 0.26 to 0.72) persisted, isolated distant relapse was comparable (HR, 0.76; 95% Cl, 0.52 to 1.13).

CONCLUSION

The overall survival benefit of patients with locally advanced resectable oesophageal or junctional cancer who receive preoperative chemoradiotherapy according to CROSS persists for at least 10 years.