

631P Neoadjuvant therapy for esophageal adenocarcinoma: A propensity score-matched comparison of paclitaxel and carboplatin chemoradiotherapy with cisplatin and 5-fluoruracil-based chemo- or chemoradiotherapy

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Background: Multimodality treatments of patients with esophageal adenocarcinoma (EAC) improve survival, but the optimal treatment strategy remains undetermined. This study aimed to compare response, local recurrence and survival outcomes in patients undergoing neoadjuvant paclitaxel and carboplatin chemoradiotherapy with 41Gy (CROSS) with neoadjuvant cisplatin and 5-fluoruracil (CF)-based chemoradiotherapy with 45Gy (CFRT) or CF chemotherapy followed by oesophagectomy for EAC.

Methods: Patients who underwent CROSS, CFRT or CF followed by surgery for EAC were identified from two single institution prospective databases from Australia and the Netherlands (2000-2018) and included in this study. After pair-wise propensity score matching (caliper 0.2) using pre-treatment variables (age, gender, year of treatment, tumor length and site, and clinical T stage), we compared the impact of the treatments on pathological outcomes, patterns of recurrence and overall survival.

Results: Of the 637 eligible patients, 429 patients were analysed following propensity score matching. This resulted in 143 patients in each group with median follow up 61 months. CROSS and CFRT demonstrated significantly higher pathological complete response rates ($p < 0.001$), lower ypT stage ($p < 0.001$) and lower ypN stage ($p < 0.001$) compared with CF. There were no statistically significant differences in 5-year local recurrence-free survival between the three treatment groups: CROSS 76% (95%CI: 68-85); CFRT 71% (95%CI: 64-81); and CF 66% (95%CI: 65-76). Similarly, there were no significant differences in 5-year overall survival rates between groups: CROSS 52% (95%CI: 44-62); CFRT 40% (95%CI: 32-49); and 46% (95%CI: 38-55) ($p = 0.18$, log rank). Median overall survival for CROSS was 69 months (95%CI: 47-139), for CFRT 32 months (95%CI: 26-52), and for CF 47 months (95%CI: 33-66) ($p = 0.33$, log rank).

Conclusions: In this study, there were higher pathological response rates and lower pathological stage associated with CROSS and CFRT. However, overall survival and local recurrence was similar for CROSS, CF and CFRT.

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