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# Is a shift in the standard of care chemotherapy for patients with esophageal cancer pre-mature?

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#### Abstract

Purpose: To compare outcomes among patients with localized esophageal and gastroesophageal junction (GEJ) cancer who received concomitant chemo-radiation (CRT) using either cisplatin/5-FU or carboplatin/paclitaxel. CROSS trial demonstrated efficacy of carboplatin/paclitaxel in tri-modality setting. However this regimen has also been adopted as an alternate for patients receiving CRT as definitive treatment due to better tolerance.

Materials and Methods: Medical records of all patients diagnosed with localized carcinoma of esophagus and GEJ who underwent definitive CRT using cisplatin/5-FU, carboplatin/5-FU, or carboplatin/paclitaxel between January 2008 and March 2015 at our academic centre were reviewed.

Results: Seventy-five patients (79% male) were identified with a median age of 74 years (range 45-86). Most (66%) had an adenocarcinoma and 37% squamous cell carcinoma. 63% had distal 1/3<sup>rd</sup> and/or GEJ tumour. 48% received cisplatin/5-FU, 35% carboplatin/paclitaxel and 17% carboplatin/5-FU. Most patients (99%) received 50Gy in 25 fractions. The median overall survival (OS) for cisplatin/5-FU group was 27 months (m) (95%CI 17-39) with 3-year OS of 42%, in contrast to 14 m (95%CI 11-17) and 13% among patients received carboplatin/paclitaxel (logrank p=0.006). The median OS for carboplatin/5-FU group was 17 m (95%CI 11-81) with 3 year OS of 38%. Cisplatin/ 5-FU group had a significantly better distant metastasis free survival (median 20 vs. 11 m, p=0.04) when compared to carboplatin/paclitaxel group. On multivariate analysis, cisplatin/5FU (hazard ratio(HR) 0.45, p=0.023) and carboplatin/5FU group (HR 0.46, p=0.093) were found to be associated with OS adjusted for other patient, disease and treatment related characteristics.

Conclusion: We report that patients receiving cisplatin/5-FU had a significant survival benefit compared to patients who received carboplatin/paclitaxel as a definitive treatment for esophageal and GEJ cancer. Carboplatin/5-FU might be a reasonable alternate for highly select patients. Clinical trials regarding optimal chemotherapy regimen are warranted for patients who are not surgical candidates.

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