

AB020. Induction therapy before surgery improves survival in patients with clinical T3N0 esophageal cancer: a nationwide study in Taiwan

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Background: The utility of induction therapy (IT) in patients with resectable esophageal cancer remains controversial, especially when clinical evidence of nodal metastases is lacking. We sought to compare the survival impact of IT versus upfront surgery (US) in patients with cT3N0 esophageal cancer.

Methods: We searched the Taiwan Cancer Registry for patients with cT3N0 esophageal cancer who underwent US or IT between 2008 and 2013. Multivariate Cox regression analysis was used to analyze the potential benefits of IT in terms of overall survival (OS) and disease-free survival (DFS).

Results: Of the 11,752 patients with esophageal cancer included in the nationwide database, 762 (6.5%) had cT3N0 disease. Most cases [720 (94.5%)] had a histological diagnosis of squamous cell carcinoma. Of them, 135

received IT (IT group) and 237 received surgery first (US group). In US group, pretreatment clinical staging was accurate in 47.9% of patients. Twenty-one (8.97%) were clinically over-staged (pT1–2N0), whereas 101 (43.17%) were clinically understaged (pT4N0 or pTanyN1–3). The presence of unexpected nodal metastases was identified in 92.1% of clinically understaged patients. In IT group, 28 (20.74%) patients did not proceed to surgery after IT. The use of IT was associated with higher R0 resection rates and fewer pathological nodal metastases, despite unexpected M1 disease being more common (all $P < 0.05$). The 5-year OS rate was significantly higher (42%) in the IT group than in the US group (33%, $P = 0.032$). Similar findings were observed in terms of 5-year DFS (37% in the IT group versus 29% in the US group, $P = 0.009$). Multivariate analysis identified US (hazard ratio: 1.42, $P = 0.03$) and non-R0 resection (hazard ratio: 1.58, $P = 0.03$) as independent adverse prognostic factors.

Conclusions: We found that 43.17% of patients with cT3N0 disease undergoing primary surgery had their disease understaged. The use of IT before esophagectomy significantly improves OS and DFS in patients with clinical T3N0 esophageal squamous cell carcinoma.

Keywords: cT3N0 disease; esophageal cancer; induction therapy

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