CLINICAL T1-T2N0M0 OESOPHAGEAL CANCER: ACCURACY OF CLINICAL STAGING AND PREDICTIVE FACTORS FOR LYMPH NODE METASTASES

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Objectives: The aim of this study was to evaluate the accuracy of clinical staging in patients with clinical T1-2N0M0 (cT1-2N0M0) oesophageal cancer and to assess predictive factors associated with lymph node (LN) metastases in those patients.

Methods: From 2005 to 2010, 240 patients who had staged as cT1-2N0M0 oesophageal cancer followed by resection without induction therapy were identified. Clinical staging was performed using both endoscopic ultrasound (EUS) and positron emission tomography (PET) scans.

Results: There were 174 patients with cT1N0M0 and 66 patients with cT2N0M0 stage oesophageal cancer. Clinical T stage correlated with pathological T stage in 182 of 240 (76%) patients, 167 of 174 patients (96%) for cT1N0, and 15 of 66 patients (23%) for cT2N0. A total of 53 patients (22%) had nodal metastases; the prevalence of nodal disease in cT1N0 and cT2N0 was 16% and 39%, respectively. Clinical TNM staging accurately predicted the pathological TNM staging in 62% of patients (148 of 240); the accuracy was 79% for cT1N0 and 15% for cT2N0. Among the 62 clinically understaged patients, 53 patients were pathologically upstaged due to nodal metastases. Significant factors associated with LN metastases on multivariate analysis were cT2 stage (OR 3.02, 95% CI 1.53-5.95, P=0.001), poor differentiation (OR 5.64, 95% CI 1.69-18.74, P<0.005), and maximum standard uptake value (SUVmax) >3.15, OR 2.05, 95% CI 1.03-4.03, P=0.038).

Conclusions: Clinical staging using both EUS and PET scans demonstrated high accuracy in predicting the pathological staging for cT1N0M0 oesophageal cancer, while it was inadequate for cT2N0M0. Clinical factors such as SUVmax and tumour differentiation may help select patients with cT1-2N0M0 tumours that can be upstaged due to unexpected LN metastases.