Imaging and Staging

IS ROUTINE SAMPLING OF THE INFERIOR MEDIASTINAL LYMPH NODE STATIONS A NECESSITY FOR PRE-OPERATIVE MEDIASTINAL STAGING IN LUNG CANCER? RESULTS OF A LARGE RETROSPECTIVE STUDY OF 986 SURGICAL RESECTIONS

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Aim: Combined EBUS-EUS (endobronchial ultrasound – endoscopic ultrasound) has been proposed as the ‘complete mediastinal staging procedure’ as it allows access to the inferior mediastinal stations (8 and 9). These stations are beyond the reach of EBUS. However, to ensure access to quality-assured EBUS-EUS for all lung cancer patients would require additional training and resources. This retrospective study sought to examine the prevalence of station 8 and 9 nodal metastases in a large cohort of lung cancer resections.

Methods: A retrospective study of the pathological outcomes from all lung cancer resections from 2011 to 2013 at a large regional thoracic surgical centre. Pathological reports from all lung resections were reviewed, reported in line with the Royal College of Pathologists Lung Cancer Dataset. Routine sampling of station 8 and 9 lymph nodes is not undertaken at our centre with EUS, whereas routine sampling of station 2,4 and 7 is performed with EBUS (with the exception of peripheral tumours and N0 staging).

Results: From 01/01/2011-31/12/2013 986 patients underwent lung resections for lung cancer at the University Hospital of South Manchester. 52% (510/986) were male. The average age was 67.5 ±9.7. The predominant histological sub-types were adenocarcinoma (49%, 479/986) and squamous cell carcinoma (38%, 377/986). The resections included lower lobe tumours in 42% of patients (415/986). Station 9 lymph nodes were submitted in 424 patients and in 5% (20/424) nodal metastases were identified. Station 8 lymph nodes were submitted in 149 patients and in 3% (4/149) nodal metastases were identified. In 45% (9/20) of patients with positive station 9 nodes this was the only site of N2 disease (single-station N2). All 4 patients with positive station 8 nodes had multistation N2 disease.

Conclusions: The results suggest a lack of routine pre-operative sampling of the inferior mediastinal stations has lead to resection of multistation N2 disease in approximately 2-3% of patients. This is a small proportion of patients and may not justify the additional resources required to allow routine sampling of the inferior mediastinal nodal stations.

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