the statistical significance demonstrated, further study is required in the form of a randomised control trial.

REFERENCE

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P18 DO BRONCHIAL WASHINGS IMPROVE DIAGNOSTIC YIELD IN PATIENTS UNDERGOING EBUS-TBNA

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Introduction EBUS is increasingly used in the diagnosis and staging of lung cancer, particularly where there are no endobronchial lesions. Despite this, in these cases referring physicians often request bronchial washings to be performed at the same time, in the hope of increasing diagnostic yield. We wished to investigate whether this added to the information provided by EBUS-TBNA in such patients.

Methods We looked at all patients who underwent EBUS procedures at our tertiary centre in the last six months, who also had washings taken for cytology at the same sitting where there were no visible endobronchial lesions. We compared the diagnostic yield from EBUS-TBNA with that from the bronchial washings.

Results Of the 111 EBUS patients, 40 underwent concurrent bronchial washings for cytology (mean age 70 years (range 23–89), 23 (58%) male). EBUS-TBNA samples were diagnostic in 39 (98%): 31 malignancy (12 adenocarcinoma, 11 squamous cell carcinoma, 3 small cell carcinoma, 2 carcinoid, 2 breast adenocarcinoma, 1 renal cell carcinoma) and 8 were benign disease. Although bronchial washings were also diagnostic for malignancy in 7 (18%) (4 squamous cell carcinoma, 3 adenocarcinoma), all these cases also had positive EBUS-TBNA samples. There were no cases in which bronchial washings provided the diagnosis in the context of a negative EBUS-TBNA sample.

Conclusions This is the first study to evaluate the effectiveness of bronchial washings in addition to EBUS-TBNA sampling, where there is no visible endobronchial disease. Since each cytological sample analysis costs £75, elimination of bronchial washings in our patients could have saved £3000 over this 6-month period. We conclude that in those patients undergoing EBUS-TBNA, who also have peripheral pulmonary lesions, bronchial washings do not improve the diagnostic yield, and should not constitute routine practice.

P19 CENTRAL AIRWAY OBSTRUCTION IN BRONCHOGENIC CARCINOMA

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Background Endobronchial compromise with central airways obstruction (CAO) is a life threatening complication of lung cancer. Endobronchial treatments provide immediate symptom relief, while allowing other treatment modalities to begin. Yet the prevalence of this condition is poorly defined. We set to identify the prevalence of CAO to inform the development of an interventional service.

Method Between 11/2014–11/2015, we reviewed the index computer tomography (CT) scans of all patients diagnosed with a thoracic malignancy. Data collected included staging and the presence of endobronchial involvement. In patients with reported endobronchial involvement, images were reviewed for suitability of airway treatment.

Results Over the study period 434 patients were diagnosed with a thoracic malignancy. In 51 non-primary bronchogenic malignancies were identified, including 41 mesotheliomas. Of the remaining 383 patients with lung cancer, 359 underwent an index CT scan. Staging by CT was reported in 291 (81.0%) patients. Of the 359 patients with CT imaging available, endobronchial disease was present in 111 (30.9% (95% confidence intervals (CI) 26.1–35.7%), with 29 (8.0%; 95% CI: 5.2–10.8%) patients having CAO. Of these, the commonest site was the bronchus intermedius (62.1%). The median degree of obstruction was 71.4% (interquartile range 50–100). Extrinsic compression was dominant in 8 (27.6%) patients. By cell type, squamous cell carcinoma, NSCLC-NOS, small cell lung carcinoma, and adenocarcinoma accounted for 9 (31.0%), 5 (17.2%), 4 (13.8%), and 4 (13.8%) cases respectively. In 9 (31.0%) no histology was available. Of those patients with CAO, 26 (89.7%) could be considered for airway treatments, however only 3 (12%) had a therapeutic procedure performed. Of 18 patients with follow up imaging, 8 (44%) developed obstructive complications.

Conclusions CAO affects nearly 1 in 10 lung cancer patients at the time of diagnosis and services should be developed to evaluate and offer timely intervention. Further longitudinal data will help predict the risk of developing central airways obstruction.

P20 HAEMOPTYSIS IN PATIENTS WITH NO EVIDENCE OF LUNG MALIGNANCY ON COMPUTED TOMOGRAPHY-IS FLEXIBLE BRONCHOSCOPY NECESSARY?

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Background Current NICE guidelines for lung cancer advocate referral to fast track clinic for unexplained haemoptysis in patients who are aged 40 and over. The current practice in our respiratory department and in most units across United Kingdom is to investigate this with a CXR, computed tomography (CT) thorax and flexible bronchoscopy regardless of the findings of the CT.

Aim The aim of this study was to evaluate whether bronchoscopy adds any further value to the findings of highly sensitive CT scans in the current era. We particularly wanted to look at number of serious pathologies such as cancer detected by flexible bronchoscopy in these patients.

Methods A retrospective analysis was conducted using our local bronchoscopy database which identified 148 flexible bronchoscopy episodes that fulfilled our inclusion criteria (all patients undergoing bronchoscopy for haemoptysis who had already undergone CT thorax which did not identify a cause for this). The cases were included irrespective of their smoking status and age and covered a period of 4 years between 2011 and 2015.

Results A total of 148 flexible bronchoscopy episodes were reviewed. Female to male ratio was 1:3 and mean age was 59 years. 72% of patients were smokers. There was no case of lung cancer identified in this cohort of patients. No pathological finding was identified in 87% (129) of the cases. The common

abnormal findings included nasal bleed-2%, haemangioma/telangiectasia-3%, purulent secretions-2%, dynamic airway collapse-1%, aberrant anatomy-1% and possible tumour-1%. The two cases of possible tumour were further evaluated with nasendoscopy and rigid bronchoscopy and no cancers were identified on biopsies. A single case of oral cancer was identified 1 year post bronchoscopy on follow up review of these cases.

Conclusion In conclusion our study shows that in patients with haemoptysis with no relevant finding identified on CT and irrespective of their smoking status, flexible bronchoscopy does not reveal any significant serious pathology. We would recommend that further studies are required to evaluate the investigative pathway

for haemoptysis particularly if CT thorax does not identify a cause for haemoptysis.

P21 PULMONARY NODULES: ASSESSING THE REPEATABILITY OF IMAGING BIOMARKERS OF MALIGNANCY

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Figure: Bland-Altman Plots

Intraclass correlation coefficients (ICC)

Volume is feature index 1. Textural features are feature indices 2 to 21.

Abstract P21 Figure 1