results in subsequent investigations and to quantify this further we have reviewed our experiences.

Methods Over a 2-year period to end 2010, 236 patients were identified as investigated by PET scan after an initial discussion of all lung cancer patients at multi-disciplinary meeting (MDT). Of these, 21 (11%) had high uptake FDG with potential evidence of extra thoracic disease not previously identified. Mean (range) age for this group was 69 (54–82) years with13 male and eight female.

Results Of the 21 patients, 13 included high uptake in the bowel with two in each of breast, thyroid, and musculo-skeletal and one in stomach and parotid. 4 patients were then not investigated further; these included one where PET-FDG findings were ignored after further MDT discussion, one was too unwell to investigate and died shortly thereafter, and two who refused further investigation. Of the remainder, 12 had high uptake FDG in the bowel but all were found to be benign after subsequent investigation, and five confirmed malignant disease of which two had thyroid cancer, two-breast cancer, and one had a prior history of bowel cancer. Over this 2-year time period none of the initially PET negative cases subsequently developed radiological malignancy.

Conclusion For extra thoracic disease, our experience with PET-FDG potentially reports sensitivity and a negative predictive power of 100% with a specificity of 95% and a positive predictive value of 29%. Although among our cases 11% had the suggestion of positive extra thoracic disease, the majority (71%) were then found to be benign with a concentration particularly at bowel. Further work will probably be needed to guide future investigation of potentially false positive metabolic or inflammatory findings at this site, but uptake at the other sites, potentially a concurrent primary malignancy or metastases, cannot be ignored.

P198 IS THERE A ROLE FOR MRI CRANIAL IMAGING IN PATIENTS WITH NON-SMALL CELL LUNG CANCER BEING CONSIDERED FOR RADICAL TREATMENT?

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Introduction Prior to undergoing radical treatment for Non-Small Cell Lung cancer (NSCLC) it is important to have accurate staging and exclude distal metastases to prevent patients undergoing futile inappropriate treatment. Guidelines[1] have recommended consideration of MRI or CT imaging of the brain, especially in stage III disease. However, routine use in non-symptomatic patients has not been studied, particularly in conjunction with PET-CT scanning. In addition it is recognised that MRI is more likely to detect more and smaller lesions than CT brain. Our local policy is to offer MRI cranial imaging in all patients being considered for radical treatment in conjunction with PET scanning. We present a retrospective analysis of all these cases including follow-up and survival.

Method All patients discussed at lung cancer multi-disciplinary meeting (MDT) who were considered suitable for radical treatment were identified and offered PET-CT and MRI brain. Results of the scans, treatment received and disease free survival data were collected.

Results There was data available on 115 cases. Eight were found to have cerebral metastasis on MRI scanning. 6/8 (75%) had with lung lesions of more than 3 cm and or a nodal status more than N>1 on initial CT staging. All eight died within 6 months of diagnosis. 2/8 failed to meet criteria with one patient's intracranial lesions probably due to co-existing breast cancer and the other refusing biopsy and therefore may not have been NSCLC.

Conclusion Eight patients would have had radical treatment inappropriately if MRI brains had not been performed. Previous studies suggest <10% pick up of cerebral metastases in non-symptomatic patients pre-PET scanning era. Our series shows 7%. We therefore suggest a cut-off from stage 1B –11A in the 7th TNM classification as an indication to request a contrasted MRI brain as part of the staging protocol with NSCLC where radical therapy is being contemplated.

Abstract P198 Table 1 Showing stage and demographics

Parameter	Data
Number of patients	115
Men	66
Women	49
Age (years)	
Mean, (range)	70 (47–106)
Histological types	
Adenocarcinoma	32
Squamous cell carcinoma	25
Undifferentiated/large cell	42
Unproven/not documented	16
Diameter of primary cancer (mm) Median, (IQR)	[68 Patients >3 cm] [47 Patients <3 cm] 32, (20–47)
CT stage	
IA	19
>IA	86
Not documented	10
CT nodal stage	
N0	63
≥N1	44
NX/Not documented	8
Synchronous metastatic brain disease	8

REFERENCE

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P199 A STUDY OF SYMPTOMS AND PATHWAYS TO TREATMENT IN LUNG CANCER PATIENTS

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Introduction and Objectives Cancer targets promote shorter times within secondary care. However, primary care delays may be longer. Our aim was to study symptoms by asking patients themselves to record their own and any perceived delays in their pathway to treatment.

Methods 259 lung cancer patients were invited, at their first oncology visit, to complete questionnaires derived from the EORTC -LC13, including urgent and systemic symptoms and to date their start to the nearest week, when they saw their GP, whether they delayed doing so and why and how often they saw their GP before being referred for CXR or to secondary care. The GP was also mailed.

Results Mean within-patient delay was 81 days (median 24). Mean delay from seeing GP to MDT meeting was 115 days (median 70), mean delay from MDT to oncology treatment was 25 days (median 15). 38% of patients admitted having delayed to see their GP. Commonest reasons were worry, denial, being too busy or family reasons. 38% patients were referred for CXR/to secondary care on their first GP visit, 49% on 2nd–3rdvisit, 12% four visits or more. Analysis of variance showed no relation between stage and time to oncology. Initially, cough, dyspnoea, haemoptysis, chest pain, sputum were present in 29%, 30%, 11%, 9% and 13% of patients respectively. However, when patients were seen at oncology, these had risen to 76%, 78%, 30%, 41% and 61% respectively. Staging was available in 255 patients with stage I, II, III and IV as 6%, 8%, 40% and 46% respectively. Systemic symptoms were frequent: asthenia 64%, weight loss 60%, anorexia 47%, dry mouth 41% and altered taste 35%. Anorexia, xerostomia, altered taste, pain other than chest pain, analgesic usage and dysphagia were each correlated with stage IV rather than I–III tumours (all $p<0.05$).