increased by 62% & 46% respectively from Group A to B although no evidence of any significant change in the proportion of patients having surgery compared with DXT was seen between Group A/B (p = 0.75). Compared with 2005 (n = 18), 29 patients underwent surgery in 2012 (p = 0.08). The proportion of wedge/segmentectomy resections (W/S) doubled over time although this change did not reach significance (p = 0.22). Similar non-significant changes in the proportion of surgical patients with stage 1 disease (p = 0.92), post-operative N2 disease (p = 0.81) and pre-operative histology (p = 0.58) were observed between Group A/B. In contrast, the rate of pre-DXT histology increased significantly from 34% to 65% (p = 0.0007). Overall concordancy between pre-operative and final histology was 97%. In 6 patients not having pre-operative histology, the final diagnosis was malignant neuroendocrine tumour.

Conclusions Improvements in the SLCS over the last 4 years have led to parallel rises in surgical and DXT rates. The rise in surgery numbers likely reflects better patient selection and increase in use of W/S whereas that for DXT appears to be the result of improved diagnostics reflected by significantly higher rates of histological diagnosis.

Abstract P7 Table 1. Differences between Group A (2005–2008) vs. Group B (2009–2012)

Year	Surgery	DXT	W/S	T1 Surgery	Post-op N2	Pre-op histology	DXT histology
Group A	68	56	4 (6%)	24 (35%)	10 (15%)	20 (29%)	19 (34%)
Group B	110	82	14 (13%)	41 (37%)	19 (17%)	38 (36%)	53 (65%)
Total	178	138	18 (10%)	65 (37%)	29 (16%)	58 (33%)	72 (52%)

P8 THERMAL ABLATION OF PULMONARY MALIGNANCIES: SURVIVAL, TECHNICAL SUCCESS AND COMPLICATIONS

MW Little, DYF Chung, P Boardman, FV Gleeson, EM Anderson; *Department of Radiology, Churchill Hospital, Oxford, England*

10.1136/thoraxjnl-2013-204457.158

Objectives Survival analysis, technical success, safety and imaging follow-up of malignant pulmonary nodules treated with microwave and radio-frequency ablation.

Materials/Methods Between July 2010 and July 2012, 28 patients, 14 female, mean age 61 years (31–87) with 54 pulmonary malignancies of mean diameter 18 mm (6–59mm) underwent computed tomography (CT)-guided thermal ablation (radio-frequency ablation for two lesions, microwave ablation for the remainder). Bronchogenic carcinoma was treated in 15 patients, metastatic tumour in the remainder (tumours were diagnosed by biopsy (67%) and or PET/CT). Technical success was defined as needle placement in the intended lesion without death or serious injury. Adequacy of ablation was assessed at 24 hours on contrast-enhanced CT. Circumferential solid or ground glass opacification > 4mm was deemed adequate, and >5mm was deemed ideal. Patients were followed with contrast-enhanced CT 3 monthly until death, or local tumour recurrence; Recurrence was identified by enlargement of the zone, the development of contrast enhancement in part of the zone, or a change in the shape of the ablation zone as a result of enlargement of one area. Survival rate was evaluated by Kaplan-Meier analysis

Results Thermal ablation was technically successful in 98% (n = 50). Mean ablation duration was 5.2 minutes (1–24 minutes). 19(68%) patients developed a pneumothorax post procedure, 7 (25%) required a chest drain. 30-day mortality rate was 0%. The mean hospital stay was 1.3 days (1–7 days). Local recurrence was only identified in one patient at a median follow up of 12 months. The 1-year survival for all cause mortality was 68%; cancer-specific mortality yielded a 1-year survival of 75%.

Conclusions Thermal ablation of pulmonary malignancies is a safe, successful technique. Local control rates and survival analysis are encouraging, with rapid treatment times, performed as a single day-case procedure advantageous over stereotactic beam radiotherapy.

P9 EPIDEMIOLOGICAL SURVEY SUGGESTS LUNG CANCER IS LESS COMMON IN PATIENTS WITH HEREDITARY HAEMORRHAGIC TELANGIECTASIA COMPARED TO CONTROLS

[1]AE Hosman, [2]HL Devlin, [3]BM Silva, [3]AH Elphick, [3]CL Shovlin; *[1]Academic Centre of Amsterdam and Imperial College London, Amsterdam and London, NL and UK; [2]Barts and the London School of Medicine, and Dentistry and Imperial College London, London, UK; [3]Imperial College London, London, UK*

10.1136/thoraxjnl-2013-204457.159

Background Over 41,000 people are diagnosed with lung cancer annually in the UK with only 8% of men, and 9% of women surviving at least 5 years after diagnosis. Antibodies against the endothelial cell protein endoglin are proving promising in early clinical trials [1]. Many individuals with hereditary haemorrhagic telangiectasia (HHT) have inherited endoglin mutations. This autosomal dominant trait affects approximately 1 in 5,000 people, causing multi-systemic vascular lesions. We hypothesised that lung cancer rates may differ in individuals with HHT.

Methods To provide sufficient power to compare lung cancer rates in HHT patients and controls, we developed a questionnaire capturing data on multiple relatives per respondent, powered to detect differences in lung cancer rates. Blinded to cancer responses, reports of HHT-specific features allowed assignment of participants and relatives as HHT-subject, unknown, or control. Logistic and quadratic regression were used to calculate crude and age-adjusted odds ratios.

Results By data download on 30.6.2012, 1,307 participants (including 1,012 HHT-subjects, 142 controls) completed the questionnaire. Ages (medians 55/53ys), gender (65/65% female) and general demographics were similar. The number of current/former smokers did not differ significantly between HHT and control groups (p = 0.38), but the HHT arm reported significantly greater pack year smoking histories than the controls (Mann Whitney p = 0.01). Combining data of participants and relatives resulted in a control-arm of 2,817 (52% female), and HHT-arm of 2,166 (58% female). Median ages were77ys [IQR 65–82] and 66ys [IQR 53–77] respectively. Rates of 15 cancers predominantly recognised as primary cancers in the control group generally matched the age standardised frequency of the general population. The ratio of observed/expected incidence was significantly higher for cancers at common sites of metastatic spread (lung, liver and brain). As expected cancer rates increased with age (p < 0.0001, all cancers). In both crude and age-adjusted regression, lung cancers were significantly less frequent in the HHT arm compared to controls (age-adjusted odds ratio 0.48 [0.30, 0.70], p = 0.0012).