tuberculous mycobacterial infection. In total, 13 patients (31%) were diagnosed with cancer. Extra-thoracic lymphadenopathy documented by CT was present in 26 (53%) of patients, including in seven cases of lymphoma and in all cases of Castleman's disease. The diagnosis was established by histopathology in 57% of cases, by clinical follow-up in 19% and by microbiology in 7%. USS guided peripheral lymph node biopsy was the preferred biopsy method in 16 cases. Surgical biopsy was performed in seven cases and EBUS-TBNA in two cases.

Conclusions Mediastinal lymphadenopathy is common in HIV positive patients undergoing CT scanning of the thorax and can be associated with a wide range of conditions. However, the prevalence of malignancy is high in this setting, emphasising the need for a pathological diagnosis.

P221 DISTAL AIRWAY BACTERIAL COLONISATION IN PATIENTS WITH LUNG CANCER

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Introduction Patients with lung cancer are at higher risk of pulmonary infection due to immunosuppression and impaired function of the natural protective mechanisms which can have an impact on oncological treatment and survival. Aims: To assess the proportion of potentially pathogenic microorganisms (PPM) that colonise the bronchial tree in patients with primary lung cancer.

Methods A bronchoscopic study of 165 patients (101 M and 64 F) aged from 31 to 96 (mean 69 years) with confirmed malignancy on bronchial sampling was conducted from January 2005 to July 2010. In all patients, bronchial washings (BW) were performed during bronchoscopy. Obtained BW fluid was subjected to microbiological examination and culture by the semi-quantitative method. A diagnostic level of >100 colony forming units (CFU) was set. Computed tomography thorax scans were also assessed for radiological signs of pneumonia.

Results In 27 (16.4%) of 165 patients, bronchial colonisation of PPM was >100 CFU. In 28 patients (17.0%), the culture of PPM was <100 CFU. The presence of fungi and upper respiratory tract flora was confirmed in 24 (14.5%) and 35 (21.2%) patients, respectively. Mycobacterium Tuberculosis was negative in the 159 patients that had been tested and Mycobacterium Fortuitum was isolated in one patient. Sixteen (9.7%) patients were colonised with Gram positive PPM. The most frequently isolated PPM was Coliform (n=9, 5.5%) followed by *Staphylococcus aureus* (n=8, 5%) and *Streptococcus pneumoniae* (n=5, 3.0%). Bronchial colonisation of PPM was highest in patients with small cell lung carcinoma (5/26, 19.2%) and similar between primary adenocarcinoma (4/30, 13.3%) and squamous cell carcinoma (12/82, 14.6%). Four multi-drug resistant strains of bacteria (2.4%) including MRSA (n=2) were isolated. In five patients (3.0%), the bronchial tree was colonised simultaneously by two or more types of PPM. A third (9/27) of patients with PPM also had radiological evidence of pneumonia.

Conclusions Less than 20% of patients with lung cancer had bronchial colonisation of microorganisms above the assumed diagnostic level. Approximately two-thirds had colonisation with Gram-positive bacteria in their distal airways. Bronchial bacterial colonisation appears to be slightly higher in patients with small cell lung cancer. The identification of potentially pathogenic microorganisms in the distal airways of lung cancer patients, especially at the time of diagnosis, is clinically important before deciding future management strategies. An empirical antibiotics policy would be useful in these patients.

P222 A RETROSPECTIVE STUDY OF DISEASE RECURRENCE POST THORACOTOMY FOR NON-SMALL CELL LUNG CANCER

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Background Surgery is the treatment of choice for early stage non-small cell lung cancer (NSCLC). However, curative intent is commonly not achieved due to inaccurate clinical staging and disease recurrence.

Aim We aimed to determine the incidence of futile thoracotomies (FT) in patients with NSCLC following surgery with curative intent. In addition, we wished to identify prognostic factors that predicted FT.

Methods In this analytical retrospective cohort study, thoracotomy cases between October 2003 and September 2008 at a single institution were identified. Confirmed cases of primary NSCLC only were included. A thoracotomy was deemed futile if any one of the following criteria were met: pathologically confirmed N2, N3, or M1 disease, an exploratory thoracotomy, or a thoracotomy in a patient who developed recurrent disease or died within 1 year of surgery. When a PET scan was performed, the SUVmax of the primary tumour was reported by a radiologist blinded to the clinical information. Case notes and hospital systems were interrogated for evidence of recurrence and survival. Statistical analysis was performed with STATA version 10 for Windows.

Results We identified 171 consecutive patients with NSCLC who underwent lung resection with curative intent. 105 (61%) were male and mean age at the time of surgery was 66 years. 134 (78%) had lobectomy, 8 bi-lobectomy, 19 pneumonectomy and 10 sub-lobar resection (segmentectomy or wedge resection). Overall 46 (27%) underwent FT. Nine patients (5.2%) had clinically unsuspected N2 disease at pathological staging. An SUVmax of the primary tumour greater than 8 was associated with an increased risk of FT (RR 2.35 (p=0.03)) (Abstract P222 Table 1). The presence of lymphovascular invasion was also associated with a increased risk of FT (RR 1.71 (p=0.04)). Those with a primary tumour greater than or equal to 3 cm in size had a RR of 1.91 (p=0.02) of FT.

Abstract P222 Table 1 Risk factors for futile thoracotomy

	Futile thoracotomy		Number of patients	p-Value
	Yes	No		
SUVmax*				
≥8	23	39	100	0.025
<8	6	32		
Vascular invasion				
Yes	25	45	171	0.036
No	21	80		
Adenocarcinoma				
Yes	22	63	171	0.863
No	24	62		
Tumour size†				
≥3 cm	32	57	158	0.021
<3 cm	13	56		
Sub-lobar resection				
Yes	2	8	171	1.000
No	44	117		
Gender				
Male	32	73	171	0.217
Female	14	52		

*71 patients did not undergo pre-operative PET scan.
†Primary tumour size unavailable in 13 patients.