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S117 SURVIVAL IN PATIENTS WITH MALIGNANT PLEURAL EFFUSIONS WHO DEVELOPED PLEURAL INFECTION: A RETROSPECTIVE CASE REVIEW FROM 6 UK CENTRES

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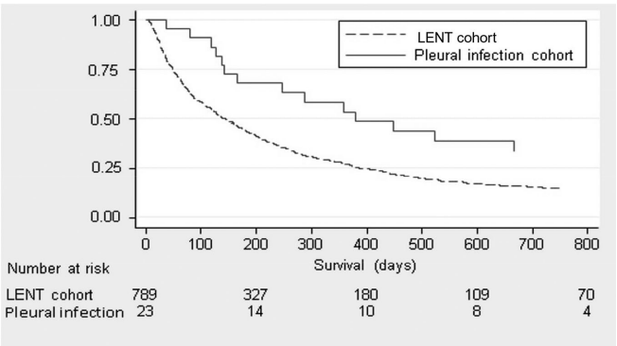
Background The incidence of malignant pleural effusions (MPE) is increasing and overall prognosis remains poor. In-dwelling pleural catheters (IPCs) relieve symptoms, but increase the risk of pleural infection. We reviewed survival times of cases of pleural infection in patients with IPCs for MPE from 6 UK centres.

Methods Baseline data were collected for all IPC insertions from 1/1/05 to 31/1/14. Survival times were analysed by underlying tumour. Results were compared with national data, and with data from a cohort of 789 patients with MPE (the LENT cohort). LENT scores were used to calculate individual predicted life expectancy, which was compared with actual survival.

Results Of 672 IPCs inserted across 6 centres during the study period, 25 patients (3.6%) experienced pleural infection. 19/25 were male,median age 69 (range 35–79). 12/25 had mesothelioma, 8/25 lung cancer, 3/25 breast cancer, 1/25 lymphoma and 1/25 thyroid cancer. 18/25 had a performance status of 0–1, and 19/25 received oncological treatment.

Survival with MPE and pleural infection compared favourably with the LENT cohort (see figure 1). Median survival with mesothelioma and pleural infection was 753 days (95% confidence interval 446–1089) compared with 339 days in the LENT cohort (95% CI 267–442) and less than 365 days in nationally reported data. Patients with lung cancer and pleural infection also outlived their LENT counterparts; median survival of 138 days (95% CI 62–479) versus 74 days (95% CI 60–90). Patients with breast cancer had similar survival times (167 vs 192 days).



Abstract S117 Figure 1 Survival in patients with malignant pleural effusions who developed pleural infection: a retrospective case review from six UK Centres

LENT scores were calculated where possible. 9/13 (69%) outlived their predicted life expectancy. 16/25 (64%) developed infection within 90 days of IPC insertion. There was no difference in survival times between patients with early and late infection (p = 0.6).

Discussion In this series of patients with IPCs, pleural infection was associated with longer survival with mesothelioma and lung cancer, but not breast cancer. Most patients experienced early infection, suggesting this result isn't simply a result of higher infection rates in patients who survive longer with an IPC *in situ*. We propose that pleural infection stimulates a local immune response, which acts against tumour. Further studies are planned to investigate this hypothesis further.

Clinical investigations and outcomes in pulmonary vascular disease

S118 INCIDENCE AND SEVERITY OF CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION FOLLOWING THE INTRODUCTION OF A ONE-STOP CLINIC FOR ACUTE PULMONARY EMBOLISM

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Introduction The management and follow-up of pulmonary embolism (PE) is delivered by various specialities resulting in both under and over investigation for suspected chronic thromboembolic pulmonary hypertension (CTEPH). To standardise our approach to long-term PE management a "one-stop" clinic was established in Sheffield in March 2010 to review all patients approximately 3 months after their presentation with acute PE. The aim of this study was to evaluate the incidence and severity of CTEPH identified from a one-stop clinic using an investigative strategy based on careful clinical assessment

Methods Consecutive patients attending the one-stop PE clinic following hospital admission with acute PE were identified. During the one-stop consultation a haematologist and respiratory physician reviewed the patient jointly. The need for further investigation was based on clinical assessment. CTEPH was defined as mean pulmonary artery pressure (mPAP) at right heart catheterisation ≥25 mmHg and required multimodality imaging (isotope perfusion scanning, CT pulmonary angiography and MR imaging including MRA and MR perfusion mapping) demonstrating classical features of CTEPH.

Results Over a 3-year period between March 2010 and March 2013, 616 patients (mean age 67.7 years, 50% male) attended the one-stop PE clinic approximately 3 months following their acute presentation. 16 patients were diagnosed with CTEPH. An overall diagnostic rate of CTEPH of 2.6% for patients seen at the clinic and an annual incidence of 8.9/million/year was observed based on a referral population of 600,000. This compares to an annual incidence of CTEPH of 4.8/million/year in patients referred to the SPVDU over the same time period, based on a referral population of 15 million. The 16 patients with CTEPH had mPAP 37 ± 11 mmHg, pulmonary vascular resistance (PVR) 362 ± 240 dynes, significantly lower than patients with CTEPH diagnosed at the SPVDU until 2010 (n = 242) mPAP 48 ± 11 mmHg and PVR 735 ± 389 dynes (Hurdman *et al* Eur Respir J 2012:39(4):945–955).

Conclusion Introduction of a one-stop PE clinic for routine follow-up of patients with acute pulmonary embolism identifies