

Pericardial effusion and lung cancer- A retrospective analysis

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Introduction

Malignant pericardial involvement is present in 20% at post-mortems of cancer patients with up to 50% having a pericardial effusion (PErF).

Common causes are lung and breast cancer.

Survival of lung cancer and PErF is < 5 months.

Positive cytology and tamponade are adverse prognostic signs.

We sought to retrospectively review lung cancer patients with pericardial effusions.

Methods

With Caldicott approval, in a search of CT scans from Jan 2011-Aug 2021 for 'lung cancer' AND 'pericardial effusion'-

765 reports were found then reduced to 112.

Basic demographics were collected. Continuous variables are presented as mean (\pm range) and categorical variables as percentages where appropriate..

Results

- Mean age was 70.6(44-91) M:F was 56/56. 7 had no co-morbidities, others all multi-morbid, COPD commonest.
- Clear previous cancer in 19 patients. Lung cancers: 33 adenocarcinomas, 31 squamous cell, 13 small cell, no pathology in 25, and others [neuroendocrine, spindle cell, undifferentiated] in 11.

Results

PErFs were findings on the first CT scan in 52

{Mean days to death was 130d (0-1279), median 70d}; the rest in scans showing disease progression (median time to progression 9mths). {mean days to death 160 (0-1138), median 64} p value 0.42. 12 effusions were large (>20mm).

18 echos were done, 5 drains were done for haemodynamic compromise (all at first presentation), 4 fluid cytology sent (all +ve).

Mean days to death in those 5 who required intervention was 15.1 (vs 148 days for whole cohort, p 0.037).

There was no statistical difference for outcomes between cancer types.

Conclusions

PErF is associated with progressive disease and need for intervention with mortality. Incidence is <3%.