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Frailty as a Predictor of Mortality in Patients with Interstitial Lung Disease Referred for Transplantation

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Biography:

Elyn Montgomery is a clinical nurse specialist in cardiopulmonary transplant and has been in the role of heart lung transplant coordinator for the last 8 years. Elyn is also currently completing her PhD in frailty in lung failure and transplantation.

BACKGROUND:

Frailty is a clinically recognised syndrome of decreased physiological reserve and a key contributor to suboptimal clinical outcomes in various lung disease groups. Interstitial lung disease (ILD) is now the most common indication for lung transplantation worldwide. Our aim was to assess whether frailty is a predictor of mortality in patients with ILD referred for lung transplantation.

METHODS:

Consecutive patients with ILD referred or on the waiting list for lung transplantation from May 2013 underwent frailty assessment using the Fried Frailty Phenotype (FFP). Frailty was defined as a positive response to three or more of the following five components; weak grip strength, slowed walking speed, poor appetite, physical inactivity and exhaustion. In addition, markers of disease severity were obtained and all patients underwent cognitive (Montreal Cognitive Assessment, MoCA) and depression (Depression in Medical Illness, DMI-10) screening.

RESULTS:

88 patients (68M:20F; age 58 ± 8 years, range 30 – 70) underwent frailty assessment. 21 / 88 (24%) were assessed as frail. Frailty was associated with lower haemoglobin and anaemia and the use of supplemental oxygen ($p < 0.05$). There was no association between frailty and age, gender, measures of pulmonary dysfunction (hypoxemia, percent predicted FVC or DLCO/VA), cognitive impairment or depression. Frailty (Hazard ratio 3.3 [95% CI 1.2-9.5]), percent predicted FVC (HR 0.95 [95% CI 0.92-0.99]) and DLCO/VA (HR

0.96 [95% CI 0.94 – 1.0]) were independent predictors of all-cause mortality: one-year actuarial survival was 85% \pm 5% in the non-frail group compared with 54% \pm 11% for the frail group (p= 0.001).

CONCLUSIONS:

Frailty is prevalent among patients with ILD referred for lung transplantation and is associated with a marked increase in mortality.