

ACTA Project Grant 2012:
'The Pulmonary Vascular / Right Ventricular Response to Lung Resection'

First year progress report

Background:

This study seeks to explore the hypothesis that right ventricular (RV) dysfunction is common (or more common than is appreciated) after lung resection and aims to provide insight into the mechanisms of such dysfunction. In this prospective observational study the RV response to lung resection will be characterised by sequential assessment of right ventricular ejection fraction (RVEF) measured using cardiovascular magnetic resonance (CMR). Comprehensive CMR and echocardiographic assessment of the pulmonary vascular - RV axis will allow interpretation of peri-operative changes in RVEF in the context of RV contractility and loading indices. In addition, contemporaneous blood samples will be taken for measurement of biomarkers of myocardial and endothelial dysfunction and systemic inflammation.

Progress:

To date 13 of 25 patients have been recruited (of which 10 have completed follow up at 2 months) placing the study ahead of target recruitment. We are delighted to report that CMR has been well tolerated in the early post operative period following lung resection with all patients able to complete the scan protocol.