

# **PULMONARY ENDARTERECTOMY IN SYMPTOMATIC PATIENTS WITH CHRONIC TROMBOEMBOLIC DISEASE AND BORDERLINE PULMONARY HYPERTENSION**

D. Taboada, C. Treacy, G. Hardman, G. Deboeck, G. Hagan, D. Jenkins, J. Dunning, S. Tsui, J. Pepke-Zaba, K. Sheares. Papworth Hospital, UK

## **Background:**

Chronic thromboembolic pulmonary hypertension (CTEPH) is defined by pre-capillary pulmonary hypertension (PH) with a mean pulmonary artery pressure (mPAP)  $\geq 25$  mmHg in patients with multiple chronic/organised occlusive thrombi in the pulmonary arteries. Pulmonary endarterectomy (PEA) is the treatment of choice for symptomatic patients with proximal CTEPH. However, there is a group of patients with exertional dyspnoea, proximal chronic thromboembolic disease (CTED) and a resting mPAP of  $\leq 25$  mmHg in whom PEA may be considered. The outcome of PEA in these patients has not been previously assessed.

## **Objectives:**

To assess the post PEA functional and haemodynamic outcomes in patients with symptomatic CTED and borderline PH.

## **Methods:**

Retrospective data were collected on patients who underwent PEA at the UK and Ireland national referral centre between 2002 and 2010 with baseline mPAP of  $\leq 25$  mmHg. Patients were reassessed 3 and 12 months after surgery. Right heart catheterisation was performed at baseline and 3 months post PEA.

## **Results:**

PEA was performed in 15 patients with symptomatic operable CTED and mPAP of  $\leq 25$  mmHg. All survived surgery and are currently alive at follow up.

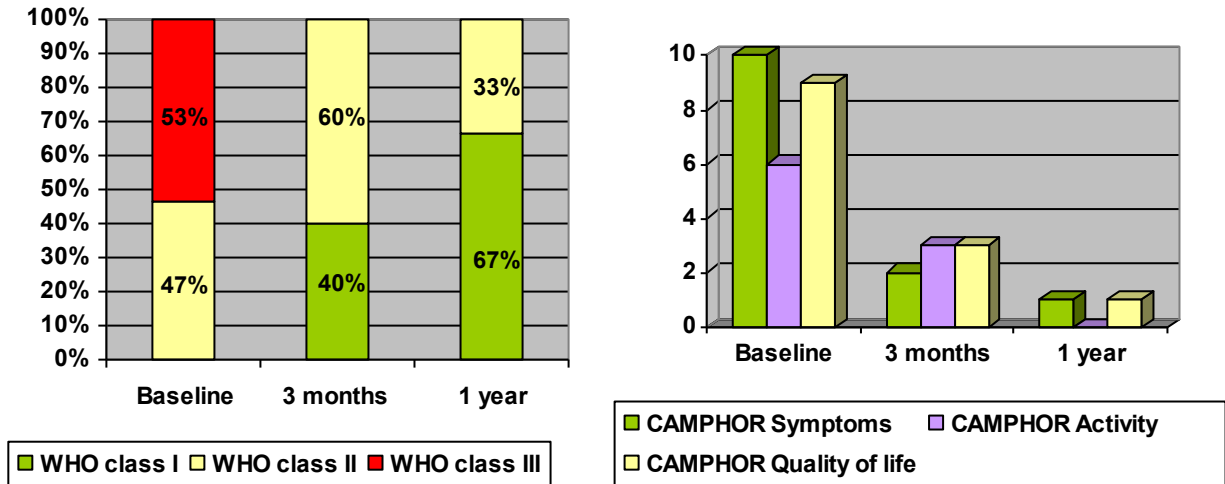
Results are displayed in mean  $\pm$  standard deviation. Mean age was  $46 \pm 18$  and 66 % were female.

TABLE 1

	Baseline (n=15)	3 months post PEA (n=15)	12 months post PEA (n=9)
6MWT distance (m)	398 $\pm$ 108	406 $\pm$ 106	433 $\pm$ 95 *
6MWT min SatO2 (%)	87 $\pm$ 7	91 $\pm$ 8 *	93 $\pm$ 4 *
mPAP (mmHg)	22 $\pm$ 3	17 $\pm$ 3 *	
Cardiac Index (l/m/m2)	2 $\pm$ 0.5	2.5 $\pm$ 0.4	
PVR (dynes.s.cm-5)	246 $\pm$ 116	128 $\pm$ 34 *	

6MWT: six minute walking test

\* p < 0.05



Results expressed as median

WHO: World Health Organisation functional class

CAMPHOR: Cambridge Pulmonary Hypertension Outcome Review quality of life questionnaire

### Conclusions:

In this small series of patients with CTED and borderline PH, there was a significant functional and symptomatic benefit from PEA at 1 year. The prognostic benefit remains unknown despite significant symptomatic improvement.

*We would like to acknowledge the input of the UK and Ireland PH centres and support by the Cambridge NIHR Comprehensive Biomedical Research Centre*