

Pulmonary Endarterectomy in Patients with Chronic Thromboembolic Embolism Pulmonary Hypertension in NYHA Functional Class II

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ABSTRACT

Background: Pulmonary endarterectomy (PEA) is the established and recognized treatment for patients with chronic thromboembolic pulmonary hypertension (CTEPH). Indications for surgery include surgically accessible thrombi, absence of co-morbidities and NYHA Functional Class III-IV. There is however a small group of patients in functional class II who are massively limited in their daily life activities so that PEA should be considered as a potential therapy for these patients.

Methods: Between May 1993 and April 2010 160 patients underwent PEA at our institution. Among them were 20 patients (12,5%) in NYHA functional Class II showing exertional dyspnoea on moderate to severe physical exposure with elevated pulmonary pressures .

Results: An improvement in functional and hemodynamical status was achieved in 18 patients undergoing PEA. Mean PAP was reduced from 37,7mmHg (20-60) to 27,4 mmHg (20-38; $p < 0,05$) and PVR from 520,21 dyn.s/cm⁵ (90-1282) to 216,8dyn.s/cm⁵ (151,7-560; $p < 0,05$). These patients showed massive improvement in quality of life. Only in two patients PEA did not lead to reduction of pulmonary pressure and neither to improvement of functional class nor quality of life . There was no major perioperative morbidity and no perioperative mortality. After 1 year all patients were still free of symptoms. Patients were followed-up for 1-18 years.

Conclusions: PEA should be considered as a treatment in selected NYHA Functional Class II Patients if they are massively limited in their daily life activities. It is a safe procedure with no reported mortality and low morbidity and it provides excellent improvement in quality of life. Therefore patients in NYHA functional class II should not be excluded from PEA.