

Programme of Pulmonary Endarterectomy in the Czech Republic

Ambrož David*, Lindner Jaroslav**Jansa Pavel *, Šimková Iveta***, Kunstýř Jan****, Bláha Jan****, Aschermann Michael*, Aleš Linhart*

*2nd Department of Medicine - Department of Cardiovascular Medicine, First Faculty of Medicine, Charles University in Prague and General University Hospital in Prague, Czech Republic

**2nd Department of Surgery - Department of Cardiovascular Surgery, First Faculty of Medicine, Charles University in Prague and General University Hospital in Prague, Czech Republic

***Slovak Medical University, Bratislava, Slovakia

****Department of Anesthesiology and Intensive Care, First Faculty of Medicine, Charles University in Prague and Thomayer University Hospital, Czech Republic

Background. Pulmonary endarterectomy (PEA) is the first choice of treatment for significant proportion of patients with chronic thromboembolic pulmonary hypertension (CTEPH). Conventional medical therapy for patients who did not receive surgery for CTEPH is anticoagulation and supportive care. Survival rate associated with conventional therapy is poor. PEA programme in the Czech Republic was launched at the Cardiocentre of the General University Hospital in Prague in 2004.

Patients and methods. Between 2001 and 2009 there were 214 cases of CTEPH (ranging in age from 16 to 89, the mean age was 64.9 ± 10.1 years, mean pulmonary artery pressure, cardiac index and pulmonary vascular resistance were 49 mmHg, 1.94 l/min/m², and 12.25 Wood units, respectively) have been diagnosed, 78% of which were considered operable. However, of the 166 operable cases, 38 patients could not undergo PEA due to comorbidities, refusal to undergo surgery or death. Standard Kaplan-Meier methodology was applied in the analysis of patients survival after PEA.

Results. One hundred and twenty-eight patients underwent PEA between September 2004 and December 2009 with a mortality rate 5.5%. At 6 months, there was a significant increase in 6-min walk distance (+171 m). NYHA class was significantly reduced. Significant residual pulmonary hypertension was detected in 17 % of patients at 6 months. Survival following discharge from hospital was 89 % at 5 years.

Conclusion. PEA is curative therapy for majority of CTEPH patients. Residual pulmonary hypertension rate is low and long-term survival is excellent in experienced centre.