

Early Haemodynamic Outcomes of Pulmonary Thrombo-endarterectomy:

Experience of a Tertiary Referral Center in Egypt

Chronic thromboembolic pulmonary hypertension is a potentially curable condition via pulmonary thromboendarterectomy (PTE) which involves surgical removal of the thromboembolic material through endarterectomy. This is a technically demanding surgery and better results could be achieved only in experienced centers worldwide. The present study aimed to document the hemodynamic outcomes of PTE focusing on the degree of improvement in exercise capacity and hemodynamic parameters after surgery.

An interventional prospective and retrospective study was undertaken in the Cardiothoracic Surgery Department at Kasr El-Aini University Hospitals, including 20 patients who underwent PTE.

After excluding the 3 mortality cases, all the 15 cases with preoperative NYHA-FC III and IV improved to a better FC while the 2 cases with preoperative NYHA-FC II remained unchanged. Mean pulmonary artery pressure (mPAP) and pulmonary vascular resistance (PVR) decreased by 33.5 (range 35.6 - 31.3) mmHg and 542.6 (range 604 - 481.1) dyn.sec.cm⁻⁵ respectively.

PTE results in a dramatic improvement in the hemodynamic parameters in patients with chronic thromboembolic pulmonary hypertension.

Keywords: Chronic thromboembolic pulmonary hypertension, Pulmonary thromboendarterectomy, pulmonary vascular resistance, Venous thromboembolism, Pulmonary embolism.