Abstract

Background: Patients with chronic thromboembolic pulmonary hypertension (CTEPHT) may be susceptible to thromboendarterectomy if anatomically feasible. However, right ventricular failure can appear as an early and serious postoperative complication. We aim to identify risk factors for right ventricular failure in patients who underwent pulmonary thromboendarterectomy.

Methods: A cohort study of patients with CTEPHT followed in a cardiology hospital, who underwent pulmonary thromboendarterectomy between 2001 and 2018. Database variables were recorded and analyzed by the treating team.

Results: Forty-three patients with CTEPHT underwent thromboendarterectomy, right ventricular failure presented in 10 patients (23.3%) and was associated with presurgical high PMN/lymphocyte ratio (p=0.028), increased BUN (p=0.007), cardiac index 1 (0=0.025). Right ventricular failure lead to prolonged mechanical ventilation (9 vs 2 days) (p=0.005) and longer ICU stay (16 vs 6 days) (p=0.002). Mortality in the postoperative period was 11%, half of these patients presented early right ventricular failure.

Conclusion: A thorough clinical evaluation of patients undergoing thromboendarterectomy can identify patients at risk of right ventricular failure and can guide presurgical treatment to improve overall surgical outcomes.