**IMPACT OF PREOPERATIVE PULMONARY ARTERIAL HYPERTENSION ON OUTCOME OF MITRAL VALVE REPLACEMENT**

**M.A. Gebrie**, N. Ahmed, A. Rungatscher, G.B. Luciani, G. Faggian

Department of Surgery, Division of Cardiac Surgery, University of Verona, Verona, Italy

Pulmonary Arterial Hypertension (PAH) increases the risk of postoperative complications in patients undergoing mitral valve surgery. With advances in the field of pharmacology and surgical techniques, risk should be decreased. In this retrospective observational study, we analyzed early postoperative outcome in patients underwent mitral valve replacement with and without preoperative PAH. We enrolled 739 patients underwent mitral valve replacement between January 2010 and June 2014. We categorized all patients in two major groups including Group 1 (With Preoperative mean PAH) and Group 2 (without preoperative mean PAH). PAH further divided into Group 2A (> 25 and <60 mmHg), Group 2B (>60 and <100 mmHg) and Group 2C (>100 mmHg) pulmonary arterial pressure. The mean age of study population was 32.3 years. On preoperative assessment PAH was present in N=445(60%) patients. According to mean Pulmonary arterial pressure N=224(50%), N=173(39%) and N=48(11%) patients were included in Group 2A, Group 2B, and Group 2C respectively. Basic characteristics were not significant in all patients. In the comparison of Group 1 vs Group 2, mean cardiopulmonary bypass and cross-clamp time was 79.37 and 54.46 minutes respectively (p>0.05). Postoperative ventilation and inotropic support time were 5.45 vs 6.88 hours and 8.9 vs 16.13 hours (p<0.001) in Group 1 and 2 respectively. Postoperative complications, intensive care unit stay and hospitalization were also significant in Group 1 and 2 (p<0.005). Overall mortality was zero in Group 1 vs 2% was in Group 2. Postoperative complications and hospitalization were increasing with the severity of preoperative PAH. Preoperative pulmonary arterial hypertension increases the risk of postoperative morbidity and mortality. PAH is an indicator for prolonged ICU and hospitalization. The severity of PAH increases the risk of the poor postoperative outcome.