

Mortality and Morbidity in Surgically Treated Patients with Acute *Stanford* Type A Aortic Dissection: Analysis of Preoperative and Intraoperative Factors

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Introduction. Acute type A aortic dissection is the most common catastrophe of aorta, requiring urgent surgical repair to prevent imminent death of a patient. Previous studies have identified several independent preoperative and intraoperative factors associated with intrahospital mortality and postoperative complications.

Aim, Materials and Methods. The aim of the study was to identify factors associated with intrahospital mortality and postoperative complication in surgically treated patients with acute *Stanford* type A aortic dissection.

Study population consisted of 48 consecutive patients with acute *Stanford* type A aortic dissection who underwent surgical repair in Pauls Stradins Clinical University Hospital from January 2006 to December 2016.

Results. The mean age of the study population was 55.0 ± 13.9 years and 72.8% were males. 45.8% of patients were transferred from other hospitals and 37.5% underwent surgery within 24 hours from onset of symptoms. Intrahospital mortality of the study population was 18.8% and postoperative complications occurred in 47.9% of patients.

Factors associated with intrahospital mortality were comorbidities, which generally increase risk of major surgical interventions ($p < 0.01$), organ malperfusion ($p = 0.04$), involvement of coronary arteries ($p = 0.02$) and a necessity to perform coronary revascularisation ($p < 0.01$), longer cardiopulmonary bypass (CPB) time ($p < 0.01$) and aortic occlusion time ($p = 0.02$) and presence of postoperative complications ($p = 0.05$). Predicting factors of postoperative complications were longer CPB time ($p = 0.03$), use of intraoperative hypothermia ($p = 0.04$) and use of intraoperative circulatory arrest ($p = 0.01$).

Patient age, time from onset of symptoms to surgery, direct admission or transfer, extent of dissection process and extent surgical repair had no statistically significant impact of outcome.

Conclusions. Several of identified preoperative and intraoperative factors were similar to previous findings. Severity of patient condition prior surgery and longer duration of surgical repair more than extent of surgical intervention was associated with worse outcome.

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