

## MINIMALLY INVASIVE AORTIC VALVE REPLACEMENT VS AORTIC VALVE REPLACEMENT THROUGH MEDIAL STERNOTOMY: PROSPECTIVE RANDOMIZED STUDY

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Standard surgical approach in an aortic valve treatment is medial sternotomy. In recent years minimally invasive procedures have been used more toward decrease of trauma and faster recovery of patients.

The aim of our study is a comparison of the preoperative, perioperative results and early mortality of patients in whom aortic valve replaced through mini- (Mini-AVR) or medial- sternotomy.

The study included 70 patients. Preoperative, intraoperative and early postoperative patients, and characteristics were analysed. Preoperative variables were homogenous. The euro-score value was significantly higher in medial sternotomy group ( $p = 0.037$ ). The cross-clamp and cardiopulmonary bypass time were longer in mini-AVR group ( $p < 0.001$ ). There was no difference in the incidence of postoperative myocardial infarction, stroke and acute renal failure. One patient in each group underwent surgical revision because of bleeding. There was no difference in hospital mortality between two groups. Postoperative blood loss was insignificantly lower in mini-AVR group ( $p = 0.69$ ). Three patients had suffered from wound infection after medial sternotomy: 2 superficial infections and 1 deep infection ( $p = 0.4$ ). The length of intensive care unit was similar in both groups. Patient in mini-AVR group had shorter hospital stay when compared with patient operated through medial sternotomy (8 days (IQR 7-11) vs 7 days (IQR 7-9)).

The mini-AVR reduces tissue trauma and hospital stay and also promotes a patient's recovery. In high-risk patients with comorbidities like obesity, diabetes and elder patients reduces the prevalence of infection.

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