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MINIMALLY INVASIVE SURGERY APPROACH IN CASE OF SOLITARY AORTIC DEFECT

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Mini-sternotomy for plastic surgery or isolated aortic valve replacement requires rapid recovery with diminished convalescence time, improved cosmetic outcome and lower hospital costs. The basic clinical benefit of a mini-sternotomy implies that the lower half of the ribcage remains intact. The basic conduct of virtually all other aspects of the aortic valve replacement procedure remains the same. Therefore, similar long-term results are expected.

In the period April 2014 - April 2019 in Medpark Hospital were operated 76 patients with severe aortic valve solitary. All patients underwent inverted J-sternotomy, which extended over the sternum handle to the third right intercostal space, without opening the pleural cavity. The ages of the patients ranged from 23 to 77 years, 50 -men and 26 -women. The patients were kept in the Trendelenburg position, used being the bilateral venous cannulation, the common aortic cannulation. All patients benefited from bioprostheses and mechanical prostheses with diameters between 21 and 29 mm. Three patients underwent conversion to conventional sternotomy.

The length of stay in intensive care was significantly shorter with 0.61 days in favor of the mini-sternotomy group. There was no benefit in terms of ventilation duration. There was evidence suggesting a reduction in blood loss and length of stay in the hospital in the mini-sternotomy group. This did not prove statistically significant (the reduction with, on average, by 114.4 ml and 2.03 days less hospitalization). Deep sternal infections were not reported.

Mini-sternotomy for isolated aortic valve replacement significantly reduces the length of stay in cardiac intensive care. Other short-term benefits may include lowering blood loss. At the same time, deep sternal infections were not reported, which is a remarkable result. This approach provides greater comfort to patients in the early postoperative period, with a painful syndrome decreased and a greater desire for early discharge from hospital and all its inherent advantages.