

Cone repair of tricuspid valve in Ebstein's anomaly: own experience of anatomical reconstruction.

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Ebstein's anomaly - a congenital heart defect in which the septal leaflet of the tricuspid valve (TV) is displaced into the cavity of the right ventricle toward its apex. Its prevalence is 0.5-1% of all congenital heart defects (CHD). The main cause of death in these patients is a heart failure. Complications are serious arrhythmias, which can also lead to sudden death.

Objective. To analyze our own experience of successful cone reconstruction of TV in Ebstein's anomaly.

Methods. From 2012 to 2015 in Ukrainian Children's Cardiac Center 17 patients were operated with Ebstein's anomaly. It was applied the new method for the cone reconstruction of TV. The mean age of patients was 8.6 + 2.7 years. Preoperative diagnosis was made by the anatomy of the tricuspid valve: type "A" in 3 patients, type "B" in 6 patients, type "C" in 5 patients, type "D" in 3 patients. All patients were conducted electrophysiological study (if necessary, conducted high-frequency catheter ablation) and a cardiac catheterization before surgery. 6 patients had cone reconstruction combined with the Glenn shunt because of right ventricle failure.

Results. Early postoperative mortality was 11.7% (2 patients). Average postoperative follow-up was 7.5 + 2.8 months. During the follow-up visit the clinical condition of the patients was examined, tests with exercise stress were conducted to assess functional status, evaluated data of ECG, echocardiography, chest X-Ray and magnetic - resonance imaging of the heart. As a result of control there is a from mild to moderate insufficiency on the TV, contractile function of the left ventricle is good and mild decreased right ventricle's contractility, indicating good result of correction. In late postoperative period reoperation was performed in 3 patients through a severe tricuspid insufficiency.

Conclusions. Methods of cone reconstruction of TV is a new and effective technique of surgical anatomical treatment of Ebstein's anomaly.