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Subvalvular aortic membrane resection

Ressecção de membrana subvalvar aórtica

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CHARACTERIZATION OF THE PATIENT

Male child with a diagnosis of parachute mitral valve stenosis at birth, subvalvular aortic stenosis and aortic coarctation (Shone syndrome).

At 2 years presented fatigue and dyspnea on exertion. Complementary tests showed aortic coarctation with significant hemodynamic repercussion, which was surgically repaired with resection and end anastomosis of the aorta.

The electrocardiogram and echocardiogram associated with clinical signs and symptoms guided to the operation of resection of aortic subvalvular stenosis caused by fibromuscular membrane.

DESCRIPTION OF THE TECHNIQUE

After median sternotomy, it is observed the opening of the pericardial sac, performing confection of purse in the aorta, introduction of the arterial cannula and fixation. Air was removed and connection to the arterial system of cardiopulmonary bypass (CPB) was performed. Opening in the right atrial appendage, introduction of single venous cannula and fixation. Aspiration of the pericardial cavity.

Started CPB, dissection between the aorta and pulmonary artery. Fixation of the cardioplegic system after needle insertion in the aorta. Aortic clamping. Aspiration of the left atrium.

During cardiac arrest, which began at the transverse aorta, which was expanded to the left in "L" shape toward the non-coronary sinus of the aorta up to near the anterior mitral leaflet. Suture using 5-0 polypropylene yarn in the aortic wall were performed for better presentation of the structures.

Identification of fibromuscular tissue to be resected, starting vertical incision below the right coronary leaflet. With the aid of a spatula, was initiated careful detachment of the fibromuscular membrane into the left coronary leaflet, circling to the mitral-aortic continuity. Special care was taken to not damage the septum and cause ventricular septal defect or atrioventricular block.

THE VIDEO REFERRING TO THE TEXT CAN BE FOUND AT BJCVS WEBSITE: http://www.rbccv.org.br

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It is noted the fibromuscular characteristic of the tissue beeing completely removed. Discrete septal muscle resection was also performed to increase the outflow of the left ventricle. All tissue adjacent to the aortic leaflets was carefully removed [1].

Administration of cardioplegia into the coronary ostia, suction and suture reconstruction of the aortic wall.

Air was removed from the heart chambers with vigorous massage of the heart. Aortic clamp removal and initiation of the heartbeat were performed.

CPB was discontinued, removal of arterial and venous cannulation were performed. Final aspect of the operation.

The CPB in normothermia lasted 58 minutes and 41 minutes of myocardial ischemia. The patient stayed 50 hours in the ICU and was discharged on the 5th postoperative day in excellent condition and clinical echocardiography showing total resection of subvalvular aortic membrane.

REFERENCE

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