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ABSTRACT BOOK

**HOW TO MANAGE UNSOLVABLE CASES AND
MAJOR DISASTRES IN CARDIAC SURGERY**

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TRANSCATHETER VSD CLOSURE AFTER CARDIAC SURGERY IN PATIENT WITH Sy EISENMENGER – A CASE REPORT

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BACKGROUND:

41-year-old male in end-stage heart failure; congenital malformation of mitral and tricuspid valve, ventricular septum defect (VSD); severe pulmonary hypertension. He was cyanotic (O₂Sat.56, Hb-16,Htc-45).Using transoesophageal echocardiography VSD, pulmonary artery (38mm),severe mitral and tricuspid regurgitation have been visualized (EF=15%, EDV=265ml, ESV=202ml).

METHOD:

After mild cardioplegia, mitral and tricuspid annuli reconstruction,pulmonary artery (PA) was banded on 24mm to increase right-to-left shunt and decrease aortic saturation, with consequent decrease in PA saturation.Lowered PA saturation results with decreasing of pulmonary resistance,opening closed capillary pulmonary net improving O₂ diffusion in pulmonary veinO₂Sat.in patient was increased on 82 from 56 (without O₂), and Hb was kept on 14 with Htc on 45-50,postoperatively.Hemodynamic measurements during first 5days showed that PA pressure was 50% of systemic pressure.After 2 years due relaps of mitral insufficiency patient got mechanical mitral valve with closure of membranous VSD with pericardial patch. Implantation of permanent pace maker was performed due registrated AV block IIIrd degree. After 6months control ultrasound examination showed big VSD muscular part ofseptum . Patient was prepared for VSD device closure, which was last separate intervention.

CONCLUSION:

Hybrid technique of VSD transcatheter closure in patients after previous cardiacsurgery intervention can be preferred approach, less invasive for the patient with good clinical outcome.



SURGICAL TREATMENT OF AORTIC ANEURYSMS IN A PATIENT WITH EHLERS-DANLOS SYNDROME

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Ehlers-Danlos syndrome is a rare inherited disorder of the connective tissue that has been divided into 10 types according to the clinical course and inheritance. In type IV Ehlers-Danlos syndrome extreme fragility of the arteries is associated with multiple aneurysm formation, spontaneous rupture, and dissection. We report on a patient with Ehlers-Danlos syndrome who had enlargement of the sinus of Valsalva, severe aortic and mitral valve regurgitation. Surgery for aneurysm of the aortic root, and mitral valve reconstruction had been performed.

Clinical summary: A 36-year-old man was admitted to our department for treatment of enlargement of the sinus of Valsalva. His height was 180 cm and weight was 60kg. There were characteristic findings in the skin and joints, with prognatia and gothic mouth. He had received graft replacement for an ascending aorta with reconstruction of the aortic root combined with mitral valve reconstruction. Ehlers-Danlos syndrome was diagnosed histopathologically by staining of the resected aortic wall, which showed deficiency of type III collagen. Early postoperatively patient had severe bleeding due to coagulation disorders. Later postoperative period was uneventful, except an enormous thoracic bulla of the right lung, which was treated conservatively with a thoracic drainage. After 20 days patient was discharged at home.



DESCENDING AORTA REPLACEMENT THROUGH MEDIAN STERNOTOMY

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INTRODUCTION:

This paper will present use of median sternotomy for repair of descending aortic aneurysm (DAA).

MATERIAL AND METHODS:

66 year old male, with chest pain, history of hypertension and previously diagnosed DAA with chronic aortic dissection, was admitted in our center for immediate operative treatment. Surgery was performed through median sternotomy, employing right subclavian artery and right femoral artery for arterial inflow, right atrium for venous cannulation. Complete graft replacement of descending thoracic aorta was performed, cross-clamping proximally between left common carotid and left subclavian artery and distally on the terminal part of thoracic aorta, employing mild hypothermia with antegrade and retrograde arterial perfusion. Proximal anastomosis was performed adjacent with left subclavian artery, while the distal anastomosis was performed with true and false lumen, after resection of dissection membrane as far as possible distally, since the left renal artery originated out of false lumen.

RESULTS:

Operation was uneventful. Patient was 10 days on respiratory machine, 7th day he got tracheostoma, with minimal blood loss. His postoperative recovery was prolonged due to transient cerebral oedema. He was discharged home on the 31st postoperative day.

CONCLUSION:

Median sternotomy is feasible in repair of DAA. It provides good exposure of the thoracic aorta with optimal position for proximal and distal aortic clamping, and it is better tolerated by patients regarding postoperative recovery.



SPONTANEOUS RUPTURE OF LEFT VENTRICULAR TRUE ANEURYSM

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Rupture of left ventricle leading to cardiac tamponade is cause of death in 5% to 10%. We report the case of a 52-year-old woman who presented with cardiac tamponade due to ruptured left ventricular aneurysm. She was experiencing sudden onset of severe chest pains, accompanied by nausea, syncope, cold sweating. Blood pressure was 88/50 mm Hg, heart rate was 126 beats/minute, respiratory rate was 32 /minute. She appeared to be conscious but drowsy. She exhibited distended neck vein, sinus tachycardia with no murmur, and moist rales breathing sound over bilateral lung base. After intubation emergency transoesophageal ultrasound showed massive pericardial effusion. Operation found bloody pericardial effusion (500 mL), earlier inferior wall infarction with large aneurysm, small leakage hole over center of aneurysm. Aneurysm measured 5.8 cm diameter, was composed of dense scar tissue ranging in thickness from 2 mm-5 mm, included wide opening into left ventricular chamber that involved at least 30% of left ventricle. Left ventricular aneurysmectomy with endoventricular patch plasty was performed. Concomitant coronary artery bypass graft was performed. Patient had uneventful recovery, with long respiratory dependency, need for tracheostoma, mesenteric ischemia –conservatively treated. After 20 days patient had been separated from respiratory machine. She was discharged at home after 40 days. 6 months follow up showed improvement of EF>40%.



SURGICAL TREATMENT OF MULTYLOCULAR HYDATID CYST OF THE LEFT VENTRICLE

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Echinococcus cyst in the heart, a life threatening condition, has rare incidence in localization of only 0.5-2%. We have described a case of a 23-year old patient with echinococcus cyst localized in the myocardium of the left ventricle. At the beginning completely asymptomatic, in a random x-ray examination a pathological formation in the left ventricle was found. Using a transthoracic echocardiography the existence of a multilocular cyst has been confirmed, located at the apex of the left ventricle with a diameter of 8cm. The diagnosis was confirmed with transesophageal echocardiography, computerized tomography and a magnetic resonance imaging. The existence of other noncardiac localizations of the echinococcosis was excluded. The coronary angiography was normal. The patient was treated for two years with benzimidazole. Three and a half years later, the patient was enrolled for a surgical treatment. Through medial sternotomy, in extracorporeal circulation with blood cardioplegy, we approached toward complete excision of the cyst. With apical opening, a multylocular cyst with dense coiquated mass was found. Following punctuation and aspiration of the cystic mass with instillation of hypertonic solution, the pericystic sheath was resected down to an intact myocardium. The septal defect was closed with two circular sutures. The operation underwent without any complications, and the patient's functions were stable following the intervention.



SURGICAL TREATMENT OF GIANT EXTRACRANIAL INTERNAL CAROTID ARTERY ANEURYSM

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Echinococcus cyst in the heart, a life threatening condition, has rare incidence in localization of only 0.5-2%. We have described a case of a 23-year old patient with echinococcus cyst localized in the myocardium of the left ventricle. At the beginning completely asymptomatic, in a random x-ray examination a pathological formation in the left ventricle was found. Using a transthoracic echocardiography the existence of a multilocular cyst has been confirmed, located at the apex of the left ventricle with a diameter of 8cm. The diagnosis was confirmed with transesophageal echocardiography, computerized tomography and a magnetic resonance imaging. The existence of other noncardiac localizations of the echinococcosis was excluded. The coronary angiography was normal. The patient was treated for two years with benzimidazole. Three and a half years later, the patient was enrolled for a surgical treatment. Through medial sternotomy, in extracorporeal circulation with blood cardioplegy, we approached toward complete excision of the cyst. With apical opening, a multylocular cyst with dense coliquated mass was found. Following punctuation and aspiration of the cystic mass with instillation of hypertonic solution, the pericystic sheath was resected down to an intact myocardium. The septal defect was closed with two circular sutures. The operation underwent without any complications, and the patient's functions were stable following the intervention.