

CONCLUSIONS Patients like structural heart disease could use the intravenous Levosimendan. During the treatment, the heart rate and blood pressure, Liver and renal function had no significant changed. Many other index were improved. This kind of patients using intravenous Levosimendan were effectively and safety.

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Monitoring of cardiac function before and after percutaneous balloon dilation in patients with rheumatic mitral stenosis and small left ventricle



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OBJECTIVES To investigate the recovery of cardiac function after percutaneous mitral stenosis (PBMV) in patients with rheumatic mitral stenosis (MS) with small left ventricle.

METHODS 41 cases of rheumatic heart disease (MS) were selected, and the prerequisite conditions were consistent with the indications of PBMV. According to the patients with left ventricular end diastolic volume index losers (LVEVI) patients were divided into two groups, LVEVI<60mm for small left ventricular group (n=16), LVEVI>60mm for non-small left ventricle group (n=25), compared two groups of PBMV preoperative and postoperative heart function index.

RESULTS The results with non small left ventricle groups were compared, the heart function of small left ventricle group New York Heart Association (NYHA) classification was poor (>NYHA Class III); Determination of liver function of bilirubin on admission: small left ventricle group than in the non small left ventricle group (P<0.05); admission two groups: small NT-proBNP the left ventricular group was significantly higher than that of non small left ventricle group (P<0.05); admission six minutes walking distance (6MWT) determination: small left ventricle group was significantly higher than that in non small left ventricular group (P<0.05); peripheral venous pressure and Ultrasonic estimation of pulmonary artery pressure (Pulmonary artery systolic pressure sPAP), small groups higher than the small left ventricle group (P<0.05); Mean pulmonary artery pressure was measured in the operation, the small left ventricular group (30.3±8.6) was significantly higher than that in the normal group (15.8±4.2), and the difference was statistically significant (P<0.05). The pressure of pulmonary artery was measured immediately after percutaneous mitral balloon dilatation, and the small left ventricular group was significantly better than that of the non small left ventricle group (P<0.05). the surgery was NT-proBNP after 24 hours, small left ventricle group decreased significantly better than the non small left ventricle group (P<0.05); postoperative peripheral venous pressure, pulmonary artery pressure, determination and estimation of ultrasonic small left ventricle group than in the non small left ventricle group decreased significantly (P<0.05); heart function classification (NYHA) small left ventricle group compared with the preoperative assessment significantly improved; after 48 hours, the operation of 6MWT increases the small left ventricle group was significantly better than the non small left ventricle group (P<0.05).

CONCLUSIONS MS patients with PBMV were significantly benefit after operation. But the preoperative cardiac function index of patients with MS combined with small left ventricle was poor, and the risk of intraoperative balloon dilatation was high. Due to the relatively short statistical time, the number of cases were limited, postoperative patients still need to long follow-up to observe the long-term effect of MS patients with small left ventricle.

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Simultaneous therapy and median follow-up for perimembranous ventricular septal defect complicated with patent ductus arteriosus



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OBJECTIVES To assess the safety and efficiency of simultaneously interventional treatment for perimembranous ventricular septal defect (pmVSD) concomitant with patent ductus arteriosus (PDA).

METHODS From 2004 to 2015, 25 patients (8 males, 17 females). The mean age was 9.8±8.1 years with arrange from 3 to 43 years. The mean

weight was 29.8±14.8 kg ranging from 13 to 75 kg. All patients were diagnosed before the procedure by echocardiography, and further diagnosed by cardioangiography during interventional therapy. For the 25 patients had pmVSD complicated with PDA, transthoracic echocardiography (TTE) and cardio angiography were performed pre and post the closure of pmVSD and PDA. Patients had re-examination included electrocardiogram, X-ray, and TTE at 2-day, 1-month, 3-month, and 6-month after the procedure.

RESULTS 25 patients had performed successfully (100%) by simultaneous interventional therapy and no complications. The fluoroscopy time was 24.7±14.9 minutes (range 6.4-67.8 minutes) and the total procedural time was 73.8±26.7 minutes (range 30-120 minutes). The pulmonary arterial pressure of 20 patients was high before the surgery. The diameter of the pmVSD was 4.1±0.9 mm (range 3-6mm) by TTE and 4.8±0.9mm (range 4-6mm) by the X-ray. The diameter of the narrowest defect of PDA was 3.3±1.9mm (range 2-9mm). Residual shunt did not show, and the occluder was well in the pmVSD and PDA by the TTE. 4 patients showed change of the electrocardiogram and heal by the drug therapy. The LAD, LVESD and LVEDD restored to normal in most of patients until the sixth-month.

CONCLUSIONS Simultaneously interventional therapy for pmVSD complicated with PDA was a safe and effective method, diagnosis and assessment should be mastered strictly by doctors before the procedure, pmVSD occlude was performed as the first procedure, and followed by PDA closure. At the same time the individual therapy should be emphasized.

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Simultaneous transcatheter intervention for compound congenital heart disease: 10-year experience of a single center



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OBJECTIVES In this study, we retrospectively analyzed a cohort of 123 compound CHD patients who received simultaneous transcatheter treatment in our institution during the last 10 years. To access the safety and efficacy of simultaneous transcatheter interventions in patients with compound congenital heart diseases (CHD).

METHODS A series of 123 patients diagnosed with compound CHD in our institution from June 2006 to October 2016 and who received transcatheter interventional therapy in the same session, were retrospectively analyzed in this study. The indications and treatment protocols were in accordance with the current guidelines. The sequence of therapy for compound CHD was determined by experience. Patients were followed at least for 6 months.

RESULTS Overall, 123 cases including (1) pulmonary valvular stenosis (PS) complicated with atrial septal defect (ASD), n = 43; (2) ventricular septal defect (VSD) complicated with ASD, n = 31; (3) VSD complicated with PDA, n = 23; (4) patent ductus arteriosus (PDA) complicated with ASD, n = 14; (5) PS complicated with PDA, n = 8; (6) PS complicated with VSD, n = 1; (7) coarctation of the aorta (CoA) complicated with VSD, n = 1; and (8) PS complicated with PDA and ASD, n = 2. All patients received simultaneous transcatheter therapy for compound cardiac defects, and the success rate was 100%. No severe complications occurred during the procedure or follow up.

CONCLUSIONS our retrospective cohort analyses of 123 patients with compound CHD indicated that transcatheter intervention therapy performed in the same session was effective and safe for these patients. Further studies are needed to confirm the study results and the long-term efficacy and safety of this treatment strategy.

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Clinical safety and Efficacy and long-term outcome of transcatheter occlusion for the patients with Valsalva aneurysm ruptured into right atrium



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