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# CLINICAL OUTCOME OF TRANSCATHETER INTERVENTION THERAPY FOR COMBINED CONGENITAL CARDIAC DEFORMITIES IN THE SAME SESSION

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**Objectives** To probe the safety and clinical results of percutaneous transcatheter intervention therapy in patients with combined congenital heart deformities in the same session.

**Methods** Thirty patients (14 males and 16 females) with combined congenital heart deformities underwent simultaneous transcatheter intervention therapy, including 7 patients with atrial septal defect (ASD) and patent ductus arteriosus (PDA), 10 patients with ASD and ventricular septal defect (VSD), six patients with ASD and pulmonary stenosis (PS), 5 patients with ASD and PDA, 1 patient with PDA and PS, 1 patient with VSD, PDA and ASD. Their mean age was ( $17.9 \pm 13.5$ ) years. Their mean weight was ( $38.8 \pm 22.0$ ) kg. They underwent transcatheter therapy simultaneously with the sequential algorithm as balloon pulmonary valvuloplasty at first, followed by the occlusion of VSD, then the occlusion of PDA, then ASD, which can be adjusted depending on the circumstances. Follow-up with electrocardiogram (ECG) and transthoracic echocardiography (TTE) was undertaken 2 d, 1 m, 3 m, 6 m and 12 m after the procedures.

**Results** 30 patients were treated successfully. In the 7 patients complicated with PS, the systolic pressure gradient across the pulmonary valve decreased from ( $46.1 \pm 15.1$ ) mm Hg (1 mm Hg=0.133 kPa) to ( $17.6 \pm 3.8$ ) mm Hg and the difference was significant ( $p < 0.01$ ). 1 patient showed incomplete right bundle branch block, one patient showed complete right bundle branch block and 1 patient showed incomplete left bundle branch block after intervention therapy, and ECG showed normal after treatment with dexamethasone. one patient with VSD and ASD, preoperative and 10 days after the procedure whose ECG showed Bifascicular block. The patient was given a permanent implanted cardiac pacemaker. Among two patients with

VSD, a slight crevice shunt was detected after the procedure by TTE, they were detected disappearance of the crevice shunt by TTE at 6 months after the procedure. No patient encountered complications during follow-up.

**Conclusions** Simultaneous transcatheter therapy of combined congenital heart deformities can obtain satisfactory effect by strict indication control and procedure manipulations.