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제56차 추계학술대회

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Application of modified cone repair in dysplastic tricuspid valve

- Tricuspid valve dysplasia is a rare congenital heart defect in pediatric patients, characterized by abnormal development of the tricuspid valve, leading to varying degrees of valve regurgitation and right ventricular (RV) dysfunction.
- Children with this condition often present with a spectrum of symptoms, including tachycardia and cardiomegaly, and may require surgical intervention as the disease progresses.
- This case report discusses the surgical management and postoperative outcomes of an 11-year-old female with tricuspid valve dysplasia and associated cardiac anomalies.

- An 11-year-old female, with a history of polyvalvar disease of the heart, epilepsy, and right hemihypertrophy of the lower leg, was admitted for surgical correction of tricuspid and mitral valve defects. She had been followed for tachycardia and worsening RV dilatation since birth.
- The surgical findings revealed a large, multi-lobulated cystic mass (40 mm) attached to the dysplastic tricuspid valve, particularly the posterior leaflet, with suspicious accessory chordal attachments, moderate tricuspid regurgitation, and a dilated right atrium and ventricle. Additionally, the dysplastic mitral valve exhibited thickening of the anterior leaflet, AMVL prolapse, limited posterior leaflet motion, and mild to moderate mitral regurgitation.
- The patient underwent Modified Cone reconstruction of the tricuspid valve, right atrium (RA) reduction, and mitral valve cleft repair between P1 and P2. Cardiopulmonary bypass (CPB) time was 123 minutes, and aortic cross-clamp (ACC) time was 88 minutes.

- Postoperatively, the patient was transferred to the sub-ICU on postoperative day #1 with stable hemodynamics. Chest tubes were removed on postoperative day #3 following satisfactory drainage.
- A postoperative echocardiogram on postoperative day #5 confirmed successful repair with improved tricuspid and mitral valve function and no significant residual regurgitation.
- The patient discharged without significant complications by postoperative day #7.

- The Modified Cone reconstruction technique proved to be an effective surgical intervention in this pediatric patient with tricuspid valve dysplasia and associated cardiac anomalies.
- This case highlights the versatility of the Cone reconstruction technique, showing its successful application across various forms of tricuspid valve dysplasia.