

Physician - Pediatric Cardiac and Vascular Surgery/Adult Congenital Heart Diseases

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Removal of Huge Cardiac Fibroma from the Right Ventricle in an Infant: Video Presentation

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Cardiac fibromas are rare primary benign tumors. They may cause symptoms such as intracavitary obstruction, coronary artery compression, thromboembolic events, conduction defects, and sudden death. They are typically intramural and are often found in the ventricles. In this video article, the surgical excision of a cardiac fibroma measuring 6.2×5×4.3 cm originating from the anterior wall of the right ventricle in an 11-month-old infant was presented. The tumor was located in the anterior wall of the right ventricle. Since exposure was insufficient from the right atrium, intervention could not be performed from within the tricuspid valve. The right ventricle infundibulum was opened from a position away from the mass. The mass, which was seen to be unencapsulated and elastic in consistency, was dissected and stripped from the myocardial tissue. A second incision was made in the right ventricular free wall for the mass that was highly adherent to the anterior wall of the right ventricle and was seen to have thinned the ventricular wall to a great extent. The tumor was completely excised together with the thinned ventricular tissue in the anterior wall. The defect formed by the excision of the highly thinned right ventricular myocardium was closed with 5-0 Prolene sutures, supported by an autogenous pericardial patch. Transesophageal echocardiography revealed that the tumor was completely removed, and the right ventricular and tricuspid valve functions were good. While surgical treatment is curative, total excision may sometimes be difficult or impossible. Nonetheless, partial resections also have a favorable prognosis. Since the involvement of the ventricular septum causes conduction defects and arrhythmias, it is associated with a poor prognosis. For surgical planning, the proximity to critical structures such as the septum, valves, conduction system, and coronary arteries should be rigorously evaluated.

Keywords: Cardiac fibroma, cardiac tumors, congenital heart disease.



Figure 1. Image of the cardiac fibroma.

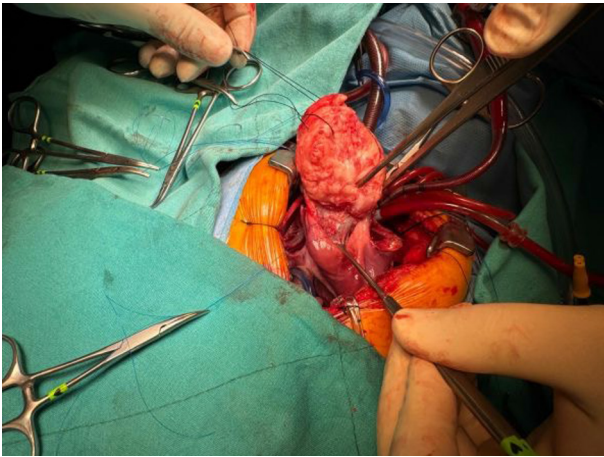


Figure 2. Tumor excision during operation.

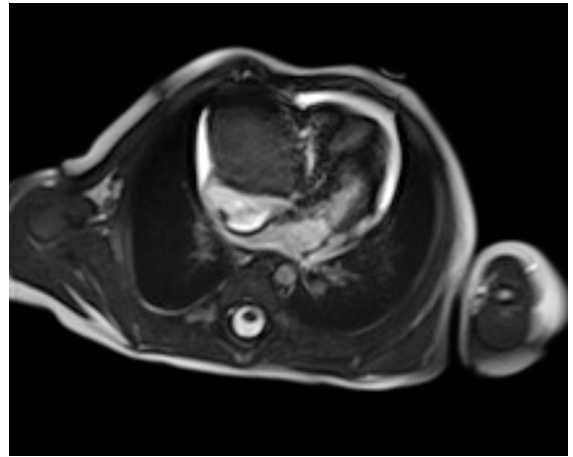


Figure 3. Preoperative magnetic resonance imaging sequence.

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