A case of neonatal right atrial mucinous tumor complicated with congenital heart disease

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1. Clinical data

Child, female, age 26 days (premature birth at 7 months gestational age), body weight 2 8 kg. Due to the discovery of heart murmurs, recurrent lung infections, and mild cyanosis on the lips for 20 days, he was admitted to the hospital on October 8, 2014. Physical examination: No cyanosis on the lips. The precordial area is full, with no abnormal apical pulsation, located in the 5th intercostal space on the left edge of the sternum. Left clavicle midline inner side 1.0 cm. Palpation of the apex of the heart shows the same position as before, and diastolic murmurs can be heard in the precordial area. The second heart sound in the pulmonary valve area is enhanced. A grade III/6 full-term rumbling murmur can be heard in the second intercostal space on the left edge of the sternum. Cardiac ultrasound prompts: ① Right atrial mucinous tumor; ② Congenital heart disease: atrial septal defect, patent ductus arteriosus (Figure 1A). Clinical diagnosis: ① Right atrial mucinous tumor; ② Congenital heart disease: atrial septal defect, patent ductus arteriosus. On October 10, 2014, right atrial myxoma removal, atrial septal defect repair, and arterial catheter ligation were performed under general anesthesia and cardiopulmonary bypass. Intraoperative findings: The size of the right atrial mass is approximately 1.5 cm × 1. 0 cm × 0. 6 cm, oval shaped milky white semi transparent, with incomplete capsule and fragility (Figure 1A); Central type atrial septal defect, with a size of approximately 5 mm x 3 mm and an arterial catheter of approximately 2 mm x 3 mm. The tumor was completely removed during surgery and the cardiac malformation was also relieved. Postoperative pathological diagnosis of the tumor: mucinous tumor. Successfully recovered after surgery, followed up for six months, with no recurrence of mucinous tumors or pneumonia.

2. Primary cardiac tumors are mostly mucinous tumors, which are true tumors with lower malignancy. There have been no successful surgical cases of neonatal cardiac mucinous tumors. The patient is a premature newborn with immature heart and important organs, and a relatively light body weight (only 2.8 kg), with poor tolerance to extracorporeal circulation and cardiac surgical trauma. However, due to the myxoma located near the tricuspid valve, which fluctuates with blood flow, it may cause acute tricuspid valve infarction at any time, leading to the death of the child; In addition, due to the inherent characteristics of mucinous tumors, they are prone to detachment, leading to seeding metastasis or acute pulmonary artery infarction; And the child also has congenital heart disease (atrial septal defect and patent ductus arteriosus), leading to recurrent lung infections. Given the above risks, early surgical treatment is necessary once diagnosed, including removal of cardiac myxoma, repair of atrial septal defect, and ligation of arterial catheters. The surgery went smoothly, and the patient recovered well after surgery. After six months of follow-up, there was no recurrence of mucinous tumors or pneumonia.

Reference:

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