EP12.16 - A tricky case of fetal TGA without I-shaped sign

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Introduction

In recent years, there has been an increase in fetal transposition of great arteries (TGA). As reported previously, we think that the I-shaped sign is useful as a screening method. However, in this study we report a rare case of fetal TGA without I-shaped sign.

Case

The mother was 28 years old when admitted to us at 26 gestational weeks for a detailed fetal echocardiography, having been referred by the obstetrician because of difficulty seeing the 3 vessel view.

Fetal echocardiographic findings

The left ventricular outflow and the right ventricular outflow ran in parallel and did not intersect. The vessel originating from the left ventricle was branched to the left and right, and the carotid artery was branched from the vessel originating from the right ventricle. Two vessels were located side by side and there was no I-shaped sign. There was no ventricular septal defect and no pulmonary artery stenosis. From the above observations, I diagnosed TGA (type1). I informed the parents that the fetus had severe congenital cyanotic heart disease requiring intensive care and surgery early in life.

The baby was born with a weight of 3080g at 41 weeks of gestation. The Apgar score was 7/8. He had small FO, narrowing PDA and pulmonary hypertension. His SpO2 was 50% and he had severe cyanosis, so he needed tracheal intubation, NO 20 ppm inhalation and prostaglandin instillation. On the same day, emergency BAS was performed, which increased his SpO2 to 80%. He underwent Jatene surgery on the 7th day and was discharged on the 25th day with a good postoperative course.

Conclusion

Immediately after birth, the baby required intensive treatment because of severe pulmonary hypertension and severe cyanosis, and fetal diagnosis was very useful.

Fetal TGA without the I-shaped sign is very rare and may not be found during screening. Therefore, it is considered important for the screener to check not only for the I-shaped sign but also whether the ventricular outflow tract is normal.