

Pulmonary Stenosis in Recipient Twins in Twin-to-Twin Transfusion Syndrome: Report on 3 Cases and Review of Literature

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This report describes 3 cases of pulmonary stenosis in the recipient twin in twin-twin transfusion syndrome. Fetal echocardiography showed cardiomegaly, tricuspid valve regurgitation, and increased reverse flow in the inferior vena cava, as signs of congestive heart failure in all 3 cases. We diagnosed 2 cases of pulmonary stenosis by fetal echocardiography prenatally and confirmed our findings in all 3 cases postnatally. Two cases underwent postnatal balloon valvuloplasty to release the pulmonary valvular stenosis in neonatal period. The third one died soon after delivery and autopsy showed a slightly thickened pulmonary valve. One of the cases was diagnosed in the early second trimester (20 weeks of pregnancy), the earliest detection of fetal pulmonary stenosis reported in literature. The presence of high peak velocity of the pulmonary artery at 20 weeks of pregnancy preceded the development of pulmonary stenosis in this case. This supports the hypothesis that alterations in fetal hemodynamics may result in structural cardiac abnormality.

Key words: *cross transfusion, intrauterine; fetal ultrasound; fetofetal transfusion; pulmonary stenosis; twin transfusion syndrome*

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