

**Echocardiographic Comparative Analysis before and after Delivery About the Fetal Pulmonary Stenosis**

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### Objectives
- The aim of our study is to investigate echocardiographic characteristics and changes of fetal pulmonary stenosis before and after delivery.

### Methods
- Sixteen cases of all fetuses from June 2014 to June 2016 were confirmed or doubted with pulmonary stenosis via echocardiography and were followed up after delivery. The sonographic features of the pulmonary stenosis in prenatal and postnatal echocardiography were compared, and their hemodynamics were also analyzed.

### Results
- Within 1 month after born, echocardiography confirmed that 13 newborns had with varying degrees of pulmonary stenosis. Of 13 newborns, 10 cases (76.9%) were diagnosed with simple pulmonary valve stenosis. Echocardiography of 4 fetuses with severe stenosis had some features, including severe tricuspid regurgitation, large right atrium, small right ventricle, reverse blood flow in arterial duct and poor prognosis. However, prenatal echocardiographic features of fetuses with mild and moderate stenosis were not obvious and easily missed diagnosis, and follow-up echocardiography showed the degree of stenosis could be gradually recovered, a few progressive.
- Three cases of 13 (23.1%) fetuses were pulmonary stenosis with intracardiac malformation, such as aorta overriding and ventricular septal defect, one case had poor prognosis after born.
- Another 3 of 16 cases were with normal pulmonary confirmed by echocardiography after delivery while they were diagnosed with mild pulmonary stenosis by prenatal echocardiography.

### Conclusions
- Prenatal and postnatal hemodynamics of fetal pulmonary artery stenosis have some characteristic changes, so we need to monitor echocardiography dynamically for fetal pulmonary stenosis, and assess the degrees of stenosis and prognosis.