

# Echocardiographic findings and pregnancy outcomes for fetuses with complete closure of the ductus arteriosus

liu xia<sup>1</sup>, Ying Deng<sup>1</sup>, Yingchun Luo<sup>1</sup>, Yanling Lian<sup>1</sup>, and Lulu Xie<sup>1</sup>

<sup>1</sup>Hunan Provincial Maternal and Child Health Care Hospital

July 19, 2023

## Abstract

**[Abstract] Objective** To analyze the echocardiographic characteristics and pregnancy outcomes for fetuses with premature complete closure of the fetal ductus arteriosus. **Methods** A retrospective analysis was performed for 8 cases of premature ductus arteriosus closure diagnosed by prenatal ultrasonography in the Hunan Maternal and Child Health Hospital from July 2019 to August 2022, and the characteristics of fetal echocardiography and pregnancy outcomes of the 8 cases were analyzed and summarized. **Results** All 8 cases of premature closure of ductus arteriosus were detected in the third trimester. In all cases, the intima of the ductus arteriosus was thickened and occluded, the ductus arteriosus could be seen with slightly hyperecho, and no blood flow signal was found in the ductus arteriosus by Doppler. The right heart was enlarged in 7 cases, and the whole heart was enlarged in 1 case. Tricuspid valve regurgitation was observed to different degrees, of which 7 cases were severe and 1 case was moderate. The pulmonary arteries of 8 patients had varying degrees of widening. Three of the 8 fetuses had a small amount of pericardial effusion. All 8 cases were delivered by cesarean section, and one newborn died after follow-up. The prognosis of the other newborns was good. **Conclusion** The parameters of prenatal echocardiography are helpful for the prognosis of fetuses with premature closure of the ductus arteriosus. Early prenatal detection, close observation and clinical guidance can be used to select the right time of delivery.

## Hosted file

Echocardiographic findings and pregnancy outcomes for fetuses with complete closure of the ductus arteriosus available at <https://authorea.com/users/640780/articles/655479-echocardiographic-findings-and-pregnancy-outcomes-for-fetuses-with-complete-closure-of-the-ductus-arteriosus>