The diagnosis of vein of Galen aneurysm malformation in prenatal by color Doppler flow imaging

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Objective: To study the value of color Doppler flow imaging (CDFI) in diagnosis of vein of Galen aneurysm malformation (VGAM) in fetuses.

Methods: Make a retrospective analyses of 5 cases VGAM in fetuses diagnosed by CDFI from January 2016 to December 2018.

Results: In all 5 cases, intracerebral echoless cyst could be visualized, in which high-speed and low-resistance blood flow could be detected by CDFI (Figure 1). All 5 cases were diagnosed by CDFI in later pregnancy (from 28 weeks to 32 weeks). Two cases among them complicated with tricuspid regurgitation, and one of them had dilated jugular vein (Figure 2) which meant retrograde perfusion of blood and may predict the failure of heart. This case delivered by cesarean section, and the new born died from heart failure after 5 days, and the other 4 cases did induction.

Conclusion: VGAM mostly happen in later pregnancy, and it can result in heart failure. CDFI plays an important role in diagnosis of VGAM.