Prenatal Diagnosis and Management of Exencephaly Carried near Term: A Case Report

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Exencephaly is a rare fetal anomaly in which the bones of the cranial vault are absent (acrania) with protrusion of brain tissue into amniotic cavity. If the brain tissue of exencephaly gradually degenerates due to exposure to amniotic fluid in combination with mechanical trauma, it can progress to anencephaly. It can be presented with other anomalies such as pentalogy of Cantrell and amniotic band syndrome. It is unusual an infant carried to term with this condition because this defect makes survival impossible. A 24-year-old unmarried woman visited our emergency department complaining of blood-tinged, watery discharge and amenorrhea for about 36 weeks. She had received no antenatal care during this pregnancy. She did not have any medical history but was a heavy smoker (about one pack per day). Ultrasonography revealed small estimated fetal weight (less than 5 percentile) and scanty amount of amniotic fluid. The cranial vault could not be defined and other anomalies including cleft lip and adactylyia were in doubt. Emergency cesarean section was performed and a female baby weighing 1540gm was delivered. The baby had no skull remaining the brain exposed. Multiple anomalies were observed on face, head and digits. Dural repair was done for the baby using Lyodura® (B Braun, Melsungen AG, Germany) by neurosurgeons. The baby was admitted to neonatal intensive care unit and was evaluated for these anomalies. However, the baby expired due to sepsis 69 days after birth. This is a rare case of exencephaly carried to term. So we report this case with brief review of literature.

A case of isolated congenital ductus arteriosus aneurysm detected by fetal heart sonography at 38 weeks of gestation

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Objective : To emphasize the importance of fetal heart sonography in the third trimester by presenting a case of congenital ductus arteriosus aneurysm(DAA) diagnosed by antenatal sonography at 38 weeks of gestation even though level II sonography showed no abnormality in the midtrimester.

Case : A 30 year-old Korean woman (G1P0), who had normal findings from level II sonography checked at the 23 weeks of gestation, underwent fetal ultrasonographic examination at 38 weeks of gestation. The three-vessel view of heart showed a fusiform dilatation of ductus arteriosus(DA). And the sagittal view of ductal arch demonstrated a dilated DA at the distal end. Its diameter was 12mm. Using color Doppler and pulsed Doppler in DAA, turbulent flow was detected but flow velocity was normal. Any other intracardiac abnormality was not found in subsequent fetal echocardiography. The active male baby was born by spontaneous vaginal delivery at 40 weeks of gestation, weighing 3300grams. DAA was confirmed by postnatal echocardiography in 24 hours after birth. But, functional closure of the DAA was detected by color Doppler at that time. Finally, the DAA was closed spontaneously without any intervention throughout neonatal period.

Conclusion : Congenital DAA is usually developed in the third trimester. The majority of DAA cases shows uncomplicated closure, but it is potentially fatal due to the possible complications such as spontaneous rupture, dissection, and thromboembolism. Therefore, the consideration for necessity of fetal heart sonography in the third trimester is suggested by this report.