Prenatal diagnosis and pregnancy management of anencephaly

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Introduction

With advancing technology, the application of ultrasound during the first trimester of pregnancy have allowed earlier determination and assessment of fetal malformations. The incidence of acrania/anencephaly is approximately 1:1,000 births. Anencephaly involves an absent upper cranial vault accompanied by an absence of the cerebral hemispheres above the level of the orbits.

Objective

was to present case of early prenatally diagnosed fetal malformation - anencephaly in 13 week of gestation (WG) ( repeated ultrasound in 18 WG) and the importance of 4 D ultrasound diagnosis in the decision to end a pregnancy.

Methods

Case of pregnant women in first trimester pregnancy was presented, where the ultrasound diagnosis of fetal anomaly - anencephaly was set which was terminated by inducted abortion.

Results – case report

Medical abortion, after feticide, was performed by applying prostaglandine E2 (Prepidil gel) intracervically and prostaglandine F2 alpha ( Prostin 15M) by repeated intramuscular injections. The fetal autopsy confirmed earlier diagnosis

Results – case report

The defect was discovered in the 13th week of gestation, on regular ultrasound control of pregnancy. The anomaly is confirmed in the 18 th week of gestation. The patient did not accept the knowledge that it was diagnosed severe fetal anomaly, and she reappeared only after four weeks to control ultrasound examination. Repeated ultrasound examination confirmed the lack of calvaria and brain substance. The face with typical “frog face” was seen. Other morphology corresponding with gestation age of 22 WG.

Conclusion

Ultrasound, especially 4D ultrasound is non invasive, fast and low cost effective method of prenatal detection of anencephaly.