First trimester screening: 4D ultrasound diagnosis and management of omphalocele

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Objective
To present a case of early prenatally diagnosed fetal malformation: omphalocele at 13 weeks gestation (WG) and the highlight the importance of 4D ultrasound diagnosis to aid decision for termination.

Methods
A case of a 39 year old pregnant women at 13 WG, where the ultrasound diagnosis of fetal anomalies were made (ectopic position of liver in omphalocoele sac), which was surgically terminated. This was performed at the Clinical Centre Vojvodina, Department of obstetrics and gynaecology.

Results
During ultrasound examination (4D) diagnosis of omphalocoele was made Based on biometric parameters of CRL 63mm, the pregnancy corresponded 12. 6 WG. Transverse scan of the abdomen at the level of the umbilicus demonstrating the lesion. The amniotic peritoneal membrane was seen covering the lesion and the liver was herniated into the sac. On that occasion nasal bones also were not been seen. Biochemical markers performed during ultrasound examinations were Free beta HCG 0. 131 MoM and PAPPA 0. 236 MoM. History data shows medication with anxiolytics, antidepressants psychostabilizers, and sedatives during pregnancy because woman was psychiatric patient. 4D findings clearly identified the omphalocele. Due to the pregnancy being in the first trimester of pregnancy and with uncertain prognosis for the development of the fetus and prognosis after delivery, after reviewing the medical records and the ultrasound findings, the Ethics Commission of the Clinical centre Vojvodina, Department of Gynecology and Obstetrics in Novi Sad made the decision to terminate the pregnancy. The patient was admitted to the Department of Obstetrics and Gynaecology, Clinical Center of Vojvodina in Novi Sad for surgical termination ( D&C (Dilatation and Curettage)). The intervention was initiated with application of Prepidil gel followed by a D&C under general intravenous anesthesia. Antibiotic therapy and therapy with uterotonic were administered. Cytogenetics analysis confirmed the chromosomal abnormalities associated with omphalocele: Edwards Syndrome 47, XX, +18. On follow up after termination, ultrasound examinations showed normal uterine findings.

Conclusion
A case report shows the importance of 4D ultrasound as a reliable method for very early prenatal diagnosis of omphalocele and timely completion of pregnancy. Prenatal diagnostics methods today with 4D ultrasound provide very early and precise diagnosis of fetal anomalies in first trimester, when D&C will be possible and thus give a woman the safer option of a termination of pregnancy performed in the first trimester.