

Ultrasound prenatal diagnosis and subsequent management of a fetus in fetus case

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Objective

A case of fetus in fetus in a pregnant woman at 35 weeks was diagnosed prenatally using bi-dimensional 3D-4D ultrasound and Doppler evaluation. The importance of prenatal diagnosis of fetus in fetus and the effect on subsequent management are described.

Methods

A 32-year-old pregnant woman, gravida 3 para 2, presented to our department following an abnormal ultrasound scan at 33 weeks' gestation that revealed a fetal abdominal mass Initially this was thought to be a hepatic cyst. However, upon detailed scanning in our department a 4.5cm abdominal soft tissue humanoid-like mass inside an amniotic sac with pulsatile umbilical cord connected to the mesenteric circulation of the host fetus was identified with power Doppler research with 144 beats per minute. A rudimentary spine, femur, tibia and fibula were also visualized.

Results

A caesarean section was performed at 37 weeks and 3 days due to preeclampsia without signs of severity and a newborn female of 3220 grams was born with Apgar scores of 8 and 9 at 1 minute and 5 minutes respectively. 24 hours later a laparotomy was performed on the neonate, during which an encapsulated retroperitoneal mass was found below the stomach in the omentum chamber connected by a rudimentary umbilical cord to the mesenteric circulation. The rudimentary fetus was found to be covered in skin with recognizable features such as limbs, spine and umbilical cord. A 1 cm section of umbilical cord was ligated and coagulated. The fetus in fetus was surrounded by a membranous sac that appeared to represent an amnion also surrounded by amniotic fluid with thick meconium. The surgeon opted against removal of this sac because of the possibility of injuring vital structures due to its close proximity to the duodenum, the mesenteric vessels, and the underlying large vessels. Post-operatively the baby evolved favourably and was discharged on the sixth day after surgery with no further complications.

Conclusion

In conclusion, with advances in prenatal sonography evaluation like high definition ultrasound, 3D-4D technology and doppler the diagnosis of fetus in fetus, as shown in this case, can be made earlier and accurately. This will facilitate planned delivery and immediate paediatric input in a reference centre, which allows improved survival with the lowest morbidity possible for the newborn.