

MASSIVE FETAL ASCITES: VAGINAL DELIVERY AFTER TRANS-ABDOMINAL FETAL PARACENTESIS

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SUMMARY

We report a case of acute fetal ascites diagnosed by ultrasonography at 29 weeks gestation in a primigravida who used herbal fertility drugs for conception and through the first 8 weeks of gestation. Under ultrasound guidance the fetal peritoneal cavity was canulated via the maternal abdomen with an 18G intravenous canular. A total of 3000mls of straw-coloured fluid was drained before the eventual vaginal delivery of a live 3.8kg fetus. The fetus had multiple congenital anomalies besides the massive fetal ascites and died after 23 minutes despite Resuscitative efforts. There is therefore the need for early anomaly scan to detect cases of this sort and institute appropriate intervention.

INTRODUCTION

Isolated fetal ascites is a rare clinical state caused by various aetiologies¹. The advent of ultrasonography into obstetric care has improved the diagnosis of this disease entity worldwide². Although ultrasound guided fetal intervention constitutes a routine part of fetal medicine practice in technological advanced countries, it is still uncommon in our environment.

We are presenting this case for documentation in the literature as well as highlight the important use of ultrasonography and some peculiar environmental factors that may be implicated in the aetiology.

CASE REPORT

Mrs. E. E. is a 28 years old woman with 2 year history of primary infertility. She and her husband were on herbal fertility drugs before her conception and she continued on this therapy till the 8th week of gestation. Her LMP was 13th August 2001 and the EDD was 20th May 2002. She booked for antenatal care at Life Specialist Hospital Nnewi at 16th week's gestation. At booking the hemoglobin level was 12g/dl; the blood group and genotype were O Rhesus 'D' positive and AA respectively. The venereal disease laboratory test was non-reactive.

Routine ultrasonography at 20 week gestation revealed a viable singleton at a gestational age of 21 weeks and 4 days with polyhydramnios and fetal omphalocele. The placental location was normal. Antenatal follow up was continued. She presented at 29th weeks gestation with uterine contractions and a fundal height of 36cm. There was fully effaced cervix; 8cm dilated cervical OS and fetal head at zero station. No membrane was felt. Urgent ultrasonography, showed a viable fetus massive ascites and no liquor. Fetal abdominal organs were suspended in the ascitic fluid and the fetal head was compressed to the pelvis. There was fetal tachycardia - heart rate of 170 beats/minute.

A decision to proceed with vaginal delivery instead of caesarean section considering the fetal condition was made and patient was admitted into the labour ward. A paediatric surgeon was invited. An intravenous line was set up with 500ml of 5% Dextrose water to keep the vein open and one unit of whole blood was cross matched. At full cervical dilatation, there was no descent of the presenting part and fetal abdominal paracentesis was performed under ultrasound guidance as follows.

The maternal abdomen was cleansed with chlorhexidine and spirit. The linear ultrasound probe was used to define an area free of fetal and maternal organs. An 18G intravenous canular was introduced under guidance to the fetal peritoneal cavity and connected to a drainage bag. Drainage of the ascitic fluid was controlled and a total of 300mls of fluid was removed over 30 minutes before the eventual delivery of the baby. The baby weighed 3.8kg with an Apgar score of 3 in one minute. The baby died after 23 minutes despite resuscitative efforts. Placenta and membrane were delivered complete after 2 minutes and the episiotomy was repaired. The baby had multiple malformations including talipes deformities of the lower extremities, ambiguous genitalia, paper thin distended anterior abdominal wall with only a glistening membrane in the parap-umbilical area and low set ears.

DISCUSSION

Fetal paracentesis abdominis is not a commonly performed procedure. In adults this is performed to decompress the abdomen especially where there is reparatory impairment from massive ascites. The abdominal distension resulting from ascites in this fetus was a great impediment to safe delivery of the fetus either vaginally or abdominally.

The case of prenatal fetal ascites are many and are sometimes severe enough to be incompatible with extra-uterine life^{1,2}. However, cases of spontaneous postnatal resolution have been reported^{1,3}. Others like our own case, form part of Multiple Congenital Anomalies (MCA).

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Our patient took a lot of herbal drugs just before conception and during the period of organogenesis in this pregnancy. This may have been Responsible for the fetal ascitis and the MCA. The decision to perform an intrapartum fetal abdominal paracentesis (which is in contrast to other reports)³ to allow for a vaginal delivery of the baby was based on the suspected MCA and the uncertainty of the post natal viability of the fetus. This is an acceptable option in our environment where we lack the advanced technology required to manage such a baby ex-utero. Secondly caesarean section would have been very difficult in this patient considering the size of the fetal abdomen and besides our women do not easily accept abdominal delivery even for a normal fetus⁴.

Gross clinical examination of the baby at birth showed other malformations as detailed in the case report. Much as this is true, we could not ascertain which internal organs were involved as we do have the benefit of post mortem examination.

Also other published reports on fetal ascitis^{1-3,5-7} were silent on the mode of delivery nor the extent of the ascites and hence we could not adequately compare notes. We believe that with increasing enlightenment among the populace, and the awareness created by this case report, the indiscriminate use of local herbal fertility drugs will reduce. Also the introduction of advanced fetal monitoring facilities/intra-uterine fetal therapy into our practice, will improve the early diagnosis and management of these rare conditions in our environment.

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